



1985

Continuity and Change in English Morphology: The Variable (ING)

Ann Celeste Houston
University of Pennsylvania

Follow this and additional works at: <http://repository.upenn.edu/edissertations>



Part of the [Linguistics Commons](#)

Recommended Citation

Houston, Ann Celeste, "Continuity and Change in English Morphology: The Variable (ING)" (1985). *Publicly Accessible Penn Dissertations*. 1183.

<http://repository.upenn.edu/edissertations/1183>

This paper is posted at ScholarlyCommons. <http://repository.upenn.edu/edissertations/1183>

For more information, please contact libraryrepository@pobox.upenn.edu.

Continuity and Change in English Morphology: The Variable (ING)

Abstract

Past studies of the variable (ING) have demonstrated regular and stable social and stylistic conditions across English speech communities around the world, factors which shape the patterns of variation between the /n/ and /ŋ/ variants of (ING). This dissertation is an inquiry into the conditions, both linguistic and social, which gave rise to the evolution of modern (ING). The purpose is to demonstrate the existence of an observable continuity between the past morphological history of (ING) and its present-day status as a sociolinguistic variable, following Sturtevant's idea (1917) that the social evaluation of linguistic forms can be viewed as the result of a competition between forms originally not in variation with each other, but which are later brought together in a shared environment, becoming variants of a single form.

This study is based on a quantitative analysis of 7950 tokens of -ing, including synchronic data based on 68 speakers (60 British and 8 American) and diachronic data based on textual materials (letters and diaries) from the 15th - 19th centuries, and a supplement of data from an earlier study (Irwin 1967) based on textual materials from the 9th - 15th century.

A grammatical effect on modern (ING) is found, seen most clearly in the British data, showing that /ŋ/ is correlated with nominal categories, and /n/ with verbal ones. This alignment does not pattern according to discrete syntactic features, but aligns probabilistically along a linear continuum. This effect is interpreted as the reflex of a partial merger between Old English morphemes *ing* and *ind*. There is an observed correspondence between the synchronic British data and the Middle English isogloss c. 1450, which established the replacement of the participial suffix *ind* with the verbal noun suffix *ing* in the south of England (Moore, Meech and Whitehall 1935). The modern cities which show probability of /ŋ/ less than .5 fall outside the isogloss, those with probability of /ŋ/ greater than .5 lie within it. The difference in probabilities is consistent with the idea that the replacement of -*ind* with -*ing* c. 1450 occurred in southern England sooner than in northern England because of a difference in the pronunciation of the two suffixes in these regions, northern -*and* versus southern -*ind*. Evidence supports the view of a syncretism between verbal noun and present participle subsequent to the replacement of -*ind* with -*ing*. (Abstract shortened with permission of author.)

Degree Type

Dissertation

Degree Name

Doctor of Philosophy (PhD)

Graduate Group

Linguistics

First Advisor

William Labov

Subject Categories
Linguistics

PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark .

1. Glossy photographs or pages _____
2. Colored illustrations, paper or print _____
3. Photographs with dark background _____
4. Illustrations are poor copy _____
5. Pages with black marks, not original copy _____
6. Print shows through as there is text on both sides of page _____
7. Indistinct, broken or small print on several pages
8. Print exceeds margin requirements _____
9. Tightly bound copy with print lost in spine _____
10. Computer printout pages with indistinct print _____
11. Page(s) _____ lacking when material received, and not available from school or author.
12. Page(s) _____ seem to be missing in numbering only as text follows.
13. Two pages numbered _____. Text follows.
14. Curling and wrinkled pages _____
15. Dissertation contains pages with print at a slant, filmed as received _____
16. Other _____

University
Microfilms
International

CONTINUITY AND CHANGE IN ENGLISH MORPHOLOGY: THE VARIABLE
(ING)

Ann Celeste Houston

A DISSERTATION

in

Linguistics

Presented to the faculties of the University of Pennsylvania in Partial
Fulfillment of the Requirements for the Degree of Doctor of Philosophy

1985



Supervisor of Dissertation



Graduate Group Chairperson

COPYRIGHT

Ann Celeste Houston

1985

To my Mother, Father, Sandra and Johnny

Acknowledgements

I would like to express my deepest appreciation to William Labov, for his patience and inspiring guidance as my advisor. I feel exceptionally privileged to have had the opportunity of working with him over these past years, and to have received the benefits of his insight, criticism, humor, and astute observations of human nature. Every aspect of this thesis is a reflection of the generosity he has shown me in terms of his time, ideas and resources. When I came to Penn, my views of language were shaped almost entirely by a perspective from the philosophy of language. Through his teaching, I have come to appreciate the need and value of quantifiable data and of pursuing a research program whose empirical basis can be replicated and built upon by others. Beyond this, he opened my ears to the amazing, living language that surrounds us every day, and is the true target of linguistic inquiry. This training is a debt I can never repay.

I am deeply grateful to Gillian Sankoff for serving on my committee. Her criticisms and observations were extremely valuable during the writing of this thesis, and her encouragement kept me going through the rough times. Her careful and thorough comments were appreciated very much, and her depth, both as a scholar and a human being will continue to set the standards for me.

I want to thank John Fought for his patience and support over the last two years, for serving on my committee, and for some interesting and rewarding discussions on morphology. I want to also thank him for the rigorous course I took with him in phonology my first year, which introduced me to the accomplishments of structural linguistics. Because of his generosity, I have had access to sophisticated computing equipment on which I have written and printed this thesis.

I would also like to thank a number of other professors who have contributed in diverse ways to the ideas in this thesis, especially to James Milroy from whom I received extensive comments on my proposal and portions of earlier drafts. I am grateful to Dell Hymes for his comments on my proposal, and also for the opportunity I had to work as a

research assistant for him. Thanks also to Dr. Lisker for his comments on the phonetics experiment, and to Dr. Hiz for his encouragement, and for referring me to the work on -ing by Zellig Harris. I'd like to thank Anthony Kroch and Richard Larson for their syntactic insights into (ING). I am very grateful to Peter Trudgill, Ralph Fasold, John Ross, Lawrence Carrington, and Lloyd Anderson for their interest and comments on my work. Thanks also to Professor Robert Gregg for sending me excerpts from his recent work on Canadian -Ing.

In conducting the experiments used in this study, a number of people contributed in various ways. Franz Seitz, Colby Madden, Elizabeth Dayton and Elizabeth Champion gave me valuable feedback on experimental design. Chris Cieri, Franz Seitz, Sheila Stein, Francis Stead and Chip Buchholtz all gave their time in helping me conduct these experiments. The enthusiasm was an extra - thanks, guys. I benefitted from on-going discussions about the syntactic and historical aspects of this dissertation with Fernando Tarallo, Elizabeth Dayton, Deborah Schiffrin, John Myhill, David Graff, Dominique Estival, Chris Cieri, Sara Kimball, Beatrice Santorini and Joe DiChicchis.

I would like to extend my appreciation to all the reference staff at Van Pelt for their cooperation and help on so many occasions during the course of my research. I would also like to thank Carol Connelly for her help over the years.

On the technical side of things, I couldn't have made it without the various computers, tape recorders and printers I have had access to in the course of analysis and writing. The original copy of this thesis was formatted on an Apollo Domain 300 computer, using the Interleaf document preparation system. The original copy was printed on an Imagen laser printer. Thanks Bill and John, for the much-appreciated use of your labs, where I spent all my midnight hours. Thanks to David Graff and Sharon Ash for cheerful and patient service in maintaining the equipment at 3732, I hope no one ever takes for granted what it takes to keep a computer lab running. Thanks to Dan Blumenfeld for his maintenance of the lab at 440, and for getting me through some low moments with high

tech. Also thanks to Dan for creating the digitized maps of England. Many thanks to Dana Boatman for helping me with the other maps.

In my graduate years at Penn I have been fortunate to have developed friendships with some exceptional women, who have given me intellectual and moral support, and whom I consider it an honor to have as peers; Deborah Schiffrin, Elizabeth Dayton, Catherine Barale, Colby Madden, Barbara Hoekje, Nadine O'Connor, Robin Sabino and Crawford Feagin. I have also appreciated the friendship of some very supportive and intellectually stimulating men; Fernando Tarallo, Mark Kuntz, Claude Paradis, Dick Liebendorfer, Will Dowling, Franz Seitz, Dave Graff and Ron Wilburn.

I will always appreciate the support my family has given me through this period of my life thanks to Lee and Sandra for much valuable advice, and to Catherine for her sense of humor about it all. Thanks to my father for having faith in me, and to Polly for providing me with some good reading. I will always be indebted to my brother John and my mother for inspiring me with wonder and curiosity about the world, their memories remain with me always.

I could not have written this dissertation without the support of Dan, my friend and companion of these past four years, who knows all the ins and outs, ups and downs of this dissertation. Thanks, too, to Blanche, Fred and Karen Blumenfeld for the care and kindness they have shown me in so many ways.

Last, but never least, I owe a big thanks to the gang at LAP, for their continual camaraderie through thick and thin. They have been with me through the entire writing of this, and more times than not, bore the brunt of my daily frustrations, and did it with more compassion and understanding than I know I deserved. Thanks, Cathy, Dana, Dan, John, Chris, Nadine, Nada, George, Daryoush, Brian, Andy, Peter, Pam, Shiva, Cherie, Sheila, Erika, Martin and Joe. I love youse all.

Table of Contents

1.0 Introduction	1
1.1 The Scope of the Present Study	1
1.2. Five Aspects of Language Change	2
1.3 General Remarks on Methodology	5
1.3.1 The Vernacular	5
1.3.2 Interviewing and the <i>Observer's Paradox</i>	6
1.3.3 Problems with Approaching Vernacular in Historical Data	7
1.4 Social Concepts and Language	8
1.4.1 The Speech Community	8
1.4.2 Inherent Linguistic Variation	10
1.5 General Plan of the Study	11
Footnotes	14
2.0 Three Perspectives on –Ing	15
2.1 Introduction	15
2.2 The Sociolinguistic Variable (ING)	16
2.2.1 (ING) in Southern English and Black English	18
2.2.2 Phonological Conditioning on (ING)	19
2.2.3 Defining the Variable	23
2.2.4 Wyld's Hypothesis	25
2.3 The Analysis of –Ing Within Generative Grammar	28
2.4 The Historical Approach to –Ing	33
2.4.1 The Theory of Phonetic Leveling	33
2.4.2 The Theory of Functional Shift	36
2.5 Summary	42
Footnotes	44

3.0	Description of the Data Base	46
3.1	Introduction	46
3.2	Description of the Factor Groups	46
3.3	Phonological Factors	48
3.3.1	Preceding and Following Environment	49
3.3.2	Vowel Preceding the Nasal Variant of (ING)	50
3.3.3	Stress	51
3.3.4	Syllabic Stem Stress Pattern	52
3.3.5	Orthography	53
3.4	Syntactic Factors	56
3.4.1	Grammatical Category	56
3.4.1.1	Present Participle [+V -N]	59
3.4.1.2	Adjectives/Adverbs [V +N]	61
3.4.1.3	Derived Nominals [+N -V]	61
3.4.1.4	Prepositions	62
3.4.1.5	Gerunds	62
3.4.1.5.1	Verbal Gerunds	64
3.4.1.5.2	Nominal Gerunds	64
3.4.1.6	Gerund Complements to Noun Phrases	64
3.4.1.7	Acc-Ing	70
3.4.2	Modifier Type for Gerunds	71
3.4.3	Syntactic Control	72
3.4.4	Oblique Objects and Complements to Gerunds	73
3.5	Abstract/Concrete Properties	75
3.5.1	Tangible Objects	75
3.5.2	Perceptible Simple Action	75
3.5.3	Perceptible Complex Action	76
3.5.4	Mental States and Events	76
3.5.5	Abstract Relations/Qualities	76

3.5.6	Time Words	77
3.5.7	Verbs of Communication	77
3.6	Social and Geographical Factors	77
3.6.1	Etymology	77
3.6.2	Geographical Area	79
3.6.2.1	Synchronic Data	79
3.6.2.2	Diachronic Data	82
3.6.3	Social Class	84
3.6.4	Genre	85
3.6.5	Age	86
3.6.6	Sex	87
3.6.7	Era	87
	Footnotes	89
4.0	Historical Continuity in Synchronic Variation	91
4.1	Introduction	91
4.2	The Interview Setting	91
4.3	Profile of the British Speakers	92
4.4	Regional Patterns	98
4.4.1	The Nominal–Verbal Continuum	110
4.4.2	Ross’s Model and (ING)	121
4.4.3	Gerunds	122
4.4.4	Syntactic Control	129
4.4.5	Discussion	131
4.5	The Grammatical Effect and Dialect	132
4.6	The Vowel Preceding the Nasal of (ING)	140
4.7	Comparing (ING) for Different Dialects	145
4.7.1	The Southern American Pattern	151
4.8	Summary	158
	Footnotes	159

5.0 The Morphological History of -ING	161
5.1 Introduction	161
5.2 Morphological and Syntactic Distributions from an Historical Perspective	162
5.3 Non-morphemic -Ing	165
5.3.1 Everything	165
5.3.2 Anything	166
5.3.3 Nothing	166
5.3.4 Something	167
5.4 The Masculine Derivational Suffix -Ing	168
5.4.1 Proper Names	168
5.4.2 Forms Derived with -Ing	170
5.4.3 Common Nouns	171
5.5 The Feminine Derivational Suffix -Ung	171
5.5.1 Words which are Monomorphemic in Modern English	171
5.5.1.1 Evening/Morning	172
5.5.1.2 Ceiling	172
5.5.2 Derived Concrete Nouns	173
5.5.2.1 Building	175
5.5.2.2 Roofing	175
5.5.2.3 Tiling	175
5.5.2.4 Caulking	175
5.5.2.5 Railing	176
5.5.2.6 Shelving	176
5.5.2.7 Plumbing	176
5.5.2.8 Clothing	176
5.5.2.9 Lining	176
5.5.2.10 Hemming	177
5.5.2.11 Embroidering	177
5.5.2.12 Stitching	177
5.5.2.13 Sewing	177

5.5.3	Derived Forms in the Diachronic Data	178
5.5.4	Adjunct Modifiers	180
5.5.5	Nominal and Verbal Gerunds	182
5.5.6	The Acc–Ing Construction	185
5.5.7	Gerunds as Noun Phrase Complements	186
5.6	Constructions Historically Formed with either –Ing or –Ind	188
5.6.1	Quasi–progressives	188
5.6.2	Verb Phrase Complements	191
5.6.2.1	Verb Phrase Complements with Equi NP Deletion	191
5.6.2.2	Verb Phrase Complements without Equi NP Deletion	192
5.6.3	Progressives	196
5.7	The Present Participle Suffix –Ind	201
5.7.1	Appositive Participles	201
5.7.2	Absolute Participles	203
5.7.3	Reduced Relative Clauses	204
5.7.4	Sentential Complements	208
5.7.5	Periphrastic Future	209
5.7.6	Adjunct Modifiers with –Ind	210
5.7.7	Predicate Adjectives	212
5.7.8	Adverbs	213
5.8	Prepositions	214
5.9	Summary of Major Constructions in the Historical Data	216
	Footnotes	218
6.0	Establishing the Continuity between Past and Present Morphology	220
6.1	Historical Data Base	220
6.2	Distribution of External Factors	220
6.3	The Dependent Variable as Presence or Absence of Final <g>	223
6.4	The Dependent Variable as Presence or Absence of Final <e>	228
6.4.1	Evidence from the Miracle Plays	237

6.4.2	The Presence of Final <e> and Other Dimensions	239
6.5	Final <e> and the Case System of Old and Middle English	241
6.5.1	Etymological Final <e>	242
6.5.2	Inflectional Final <e>	243
6.5.3	Inorganic Final <e>	244
6.5.4	Scribal Final <e>	245
6.6	Data from Irwin's Study of -Ing	246
6.6.1	The Presence of Final <e> in Irwin's Data	252
6.7	The Association of Nominal Traits with Syntactic Positions of Gerunds	255
6.8	Case Marking and the Present Participle in Irwin's Data	260
6.9	Stress and -Ing	268
6.9.1	Secondary Stress Patterns in Old and Middle English	269
6.9.2	Experimental Results on the Perception of a Nasal Stop Following High Front and Mid Central Vowels	274
6.10	The Relationship Between the Gerund, the Inflected Infinitive and the Present Participle	280
6.11	Concluding Remarks	284
	Footnotes	286
7.0	The Expanding Verbal Function of -Ing	287
7.1	Introduction	287
7.2	The Morphological Status of Synchronic -Ing	287
7.2.1	Generative Models	288
7.3	Syntactic Syncretism and Verbalization of -Ing	292
7.3.1	Syncretism Following Main Verb BE	295
7.3.2	Syncretism After Verbs of Motion	303
7.3.3	Syncretism and Verb Phrase Complements	305
7.4	The Influence of Non-finite Participles on the Increasing Verbalization of Gerunds	311
7.5	The Limits of Discrete Models of Change	319
7.5.1	Discrete Models of Synchronic (ING)	320

7.5.2	Discrete Models of Diachronic Change	323
7.5.2.1	Radical Re-analysis and Infinitives in English	324
7.5.2.2	The Assumption of Gerunds as Discrete NPs	326
7.6	The Replacement of Infinitives with Gerunds	329
	Summary on Verbalization of (ING)	331
	Footnotes	333
8.0	The Evaluative Function of (ING): A Contrast to Grammatical Function	336
6.1	Introduction	336
6.2	Evidence of Social Evaluation in Prescriptive Grammars	337
6.3	Appearance of the Apostrophe with -Ing	339
6.4	Intuitions and the Grammatical Conditioning on (ING)	350
8.5	Functionalism and Social Evaluation	355
	Footnotes	359
9.0	Conclusions	360
9.1	General Summary	360
9.2	Introspection versus the Quantitative Paradigm	364
9.3	Topics for Further Exploration	366
	Footnotes	369
	Appendix A: Reliability Test	370
	Appendix B: Editing Experiment 1 for (ING)	373
	Editing Experiment 2 for (ING)	376
	Appendix C : Experimental Procedure for Phonetics Experiment on the Perception of [n] and [ŋ] following Vowels in Stressed and Unstressed syllables	379
	Appendix D: Sample Form for Morphology Experiment	391
	Appendix E: Tapes used in the Synchronic Data Base	392

Appendix F: Historical Texts used in the Diachronic Data Base	394
Bibliography	399
Index	409

List of Tables

Table 2.1	Summary of Sociolinguistic Studies on (ING)	17
Table 2.2	Effects of Regressive Assimilation and Progressive Dissimilation for British (ING)	20
Table 2.3	Distribution of the Variant [ɪn] in British Speech for Men and Women	21
Table 2.4	Percentage of Velar Variant in American Southern Speech according to <i>something, nothing, everything, anything</i>	22
Table 2.5	Percentage of Velar Variant in British Speech according to <i>something, nothing, everything, anything</i>	23
Table 2.6	Percentage of Velar Variant for Philadelphia Speech according to Grammatical Category	24
Table 3.1	Independent Factor Groups for the Synchronic Data	47
Table 3.2	Independent Factor Groups for the Diachronic Data	48
Table 3.3	Phonological Environments for (ING)	50
Table 3.4	Vocalic Variants Preceding the Nasal of (ING)	51
Table 3.5	Number of Syllables in Stem	52
Table 3.6	Orthography of Vowel Preceding Nasal	53
Table 3.7	Forms Occurring with or without Final <e>	54
Table 3.8	Syntactic Feature Matrix	56
Table 3.9	Classification of Data by Syntactic Features	58
Table 3.10	Summary of Syntactic Tests for NP Complements	66
Table 3.11	Syntactic Features of Gerund Types	71
Table 3.12	Etymological Origins of the Diachronic Data	78
Table 3.13	Sources of the Diachronic Data	83
Table 3.14	Dialects Represented in Irwin's Sample	84
Table 3.15	Social Strata	85
Table 3.16	Genres	86
Table 3.17	Age Groups	87
Table 3.18	Summary of Dimensions	88
Table 4.1	Distribution of British (ING) according to Age and Sex	92
Table 4.2	Distribution of British (ING) according to Number of Speakers per Age Group	93

Table 4.3	Distribution of British (ING) according to Sex and Urban/Rural Setting	95
Table 4.4	Distribution of British (ING) according to Geographical Region and Number of Speakers for each Region	96
Table 4.5	Summary of Boundary Points for Isogloss between <ing> and <and> c.1450	101
Table 4.6	Probability of Velar Application of (ING) according to Dialect and Grammatical Category	103–104
Table 4.7	Groups of Non-significantly Different Categories	107
Table 4.8	Five Significant Regional Groupings for British Data	108
Table 4.9	Probabilities of Velar Application of (ING) in British Synchronic Data according to Grammatical Category, Dialect Region and Age	109
Table 4.10	Probabilities of Velar Application of (ING) according to Chomsky's Syntactic Feature Matrix	111
Table 4.11	Significantly Different Categories not Shown in Table 4.10	113
Table 4.12	Probabilities of Velar Application for Semantic Dimension in British Data	114
Table 4.13	Probabilities of Velar Application for Etymology of British Data	116
Table 4.14	Probabilities of Velar Application according to Number of Stem Syllables for British (ING) Data	118
Table 4.15	Probabilities of Velar Application according to Clause Type for British Data	120
Table 4.16	Probabilities of Velar Application for Gerunds in British Data according to Syntactic Position of Gerund	124
Table 4.17	Distribution of Control Type according to Syntactic Position of Gerund	126
Table 4.18	Distribution of Determiner Type according to Syntactic Position of Gerund	127
Table 4.19	Percentage of Velar Application for Gerunds according to Syntactic Position and Dialect Region	129
Table 4.20	Distribution of Types of Syntactic Control according to Grammatical Category	130
Table 4.21	Percentage of Velar Application for Major Grammatical Categories according to Inside and Outside Dialect Regions	133
Table 4.22	Chi Squares for Grammatical Groups shown in Table 4.21	134
Table 4.23	Distribution of Etymological Origins for (ING) according to Grammatical Categories	136
Table 4.24	Comparison of Velar Applications according to Discrete Feature Model for Inside and Outside Dialect Regions	138

Table 4.25 Significance of Chi Square for Difference between Categories for Inside and Outside Dialects shown in Table 4.24	139
Table 4.26 Distribution of Vowel Variants in (ING) according to British Dialect	140
Table 4.27 Velar Applications for Inside/Outside Dialects according to Height of Vowel Preceding Nasal	142
Table 4.28 Distribution of Vowel Variants according to Grammatical Category of (ING) in British Data	143
Table 4.29 Percentage of Velar Application for // and /h/ for Two Major British Dialect Regions	144
Table 4.30 Probability of Velar Application for the Vowel Variants // and // according to Grammatical Category	145
Table 4.31 Velar Application of (ING) for Inside Dialects	146
Table 4.32 Velar Application of (ING) for Outside Dialects	147
Table 4.33 Comparison of Probabilities of Velar Application according to Grammatical Category for Inside and Outside Dialect Regions	148
Table 4.34 Comparison of Probabilities of Velar Application for Vowel Height for Inside and Outside Dialect Regions	149
Table 4.35 Comparison of Probabilities of Velar Application for Preceding Phonological Environment for Inside and Outside Dialect Regions	150
Table 4.36 Comparison of Probabilities of Velar Application for Following Phonological Environment for Inside and Outside Dialect Regions	151
Table 4.37 Probabilities of Velar Application for American Southern Dialects according to Grammatical Category	152
Table 4.38 Comparison of Velar Applications according to Grammatical Category for British and Southern American (ING) Data	153
Table 4.39 Comparison of Velar Applications according to Vowel Height for British and Southern American (ING) Data	154
Table 4.40 Comparison of Velar Applications according to Preceding Phonological Environment for Southern American and British (ING)	155
Table 4.41 Comparison of Velar Applications for Following Phonological Environment for British and Southern American (ING) Data	156
Table 4.42 Comparison of Velar Applications according to Syntactic Position of Gerunds for British and Southern American (ING) Data	157
Table 5.1 Relative Frequency of Proper Names with -Ing: 15th–19th Centuries	170
Table 5.2 Distribution of Monomorphemic Nouns with -Ing (15th –19th Centuries)	173
Table 5.3 Response of Twenty Subjects to Acceptability of Ø-Form Nouns, Plural Nouns, and Verbs Related to Concrete Nouns in -Ing	179

Table 5.4	Distribution of Concrete Derived Nouns in -Ing: (15th –19th Centuries)	180
Table 5.5	Distribution of Prenominal Modifiers (Gerundive)	182
Table 5.6	Distribution of Nominal and Verbal Gerunds	184
Table 5.7	Distribution of Gerunds as Nominal, Verbal and Intermeditate Types	185
Table 5.8	Distribution of Acc-ing (15th – 19th Centuries)	186
Table 5.9	Distribution of -Ing Complements to Noun Phrases	188
Table 5.10	Distribution of Quasi-progressives (15th – 19th Centuries)	190
Table 5.11	Distribution of Verb Phrase Complements (+/-Equi) (15th – 19th Centuries)	196
Table 5.12	Distribution of the Progressives (15th – 19th Centuries)	198
Table 5.13	Distribution of A + Participle (15th – 19th Centuries)	199
Table 5.14	Distribution of Appositive Participles (15th – 19th Centuries)	202
Table 5.15	Distribution of Absolute Participles (15th – 19th Centuries)	204
Table 5.16	Distribution of Pre-nominal and Post-nominal Modifiers (15th – 19th Centuries)	205
Table 5.17	Distribution of Reduced Relative Clauses (15th – 19th Centuries)	206
Table 5.18	Distribution of Sentential Complements (15th – 19th Centuries)	209
Table 5.19	Distribution of Periphrastic Future (15th – 19th Centuries)	210
Table 5.20	Distribution of Adjunct Modifiers (+participle) (15th – 19th Centuries)	211
Table 5.21	Distribution of Predicate Adjectives (15th – 19th Centuries)	212
Table 5.22	Distribution of Adverbs (15th – 19th Centuries)	213
Table 5.23	Distribution of Prepositions (15th – 19th Centuries)	215
Table 5.24	Distribution for All Constructions with -Ing (15th – 19th Centuries)	217
Table 6.1	Distribution of Historical Data by Age of Writer	221
Table 6.2	Distribution of Historical Data by Genre	221
Table 6.3	Distribution of Historical Data according to Gender	222
Table 6.4	Distribution of Historical Data according to Geographical Region	222
Table 6.5	Presence of Final <g> on Historical -Ing based on Morphological Histories	224
Table 6.6	Presence of Final <g> on Historical -Ing based on Modern Nominal-Verbal Attributes	225
Table 6.7	Percentage of Final <g> in Historical Data	227
Table 6.8	Distribution of Three Vowel Variants preceding <ng> according to Grammatical Groups	228

Table 6.9	Percentage of Final <e> in Historical Data according to Morphological History	229
Table 6.10	Distribution of Final <e> for Historical Data according to Modern Nominal–Verbal Attributes	229
Table 6.11	Percentage of Final <e> in Historical Data according to Nominal–Verbal Attributes of Gerunds	230
Table 6.12	Percentage of Final <e> by Century according to Type of Gerund	231
Table 6.13	Percentage of Final <e> according to Syntactic Position of Gerund	231
Table 6.14	Percentage of Final <e> by Century according to Syntactic Position of Gerund	232
Table 6.15	Percentage of Final <e> on Gerunds according to Dialect Region	232
Table 6.16	Distribution of Historical Data by Dialect (15th – 19th Centuries)	233
Table 6.17	Applications of Final <e> for Historical Data according to Dialect, Grammatical Category and Syntactic Position of Gerund	234
Table 6.18	Percentage of Final <e> for London/Essex and Norfolk/Suffolk according to Grammatical Category	236
Table 6.19	Comparison between Diachronic <e> and Synchronic /n/	236
Table 6.20	Applications of Final <e> in the Miracle Plays	238
Table 6.21	Applications of Final <e> according to Etymology, Clause Type Grammatical Category and Era	240
Table 6.22	Distribution of Masculine Nouns, Feminine Nouns and Present Participles in Old, Middle and early Modern English	247
Table 6.23	Range of Dialect Sample in Irwin's Data (8th – 15th Centuries)	248
Table 6.24	Major Spelling Variants for Feminine Nouns (8th – 12th Centuries)	248
Table 6.25	Major Spelling Variants for Masculine Nouns (8th – 12th Centuries)	249
Table 6.26	Spelling Variants for Masculine and Feminine Nouns (13th – 15th Centuries)	249
Table 6.27	Spelling Variants of the Present Participle (8th–15th Centuries)	250
Table 6.28	Spelling Variants for the Verbal Noun (8th – 15th Centuries)	251
Table 6.29	Percentage of Final Case–marking on Verbal Nouns according to Syntactic Position (9th – 15th Centuries)	253
Table 6.30	Distribution of Modifiers according to Syntactic Position of Gerund (15th – 19th Centuries)	256
Table 6.31	Data Shown in Table 6.30	256
Table 6.32	Distribution of Syntactic Control for Gerunds according to Syntactic Position (15th – 19th Centuries)	258
Table 6.33	Summary of Adjectival Endings in Old English	261

Table 6.34	Distribution of case-marking on Adjectival Present Participles in Irwin's Data (9th – 15th Centuries)	262
Table 6.35	Distribution of Final Case-marking versus No Case-marking on Present Participle in Irwin's Data	263
Table 6.36	Percentage of Correct Guesses for Unstressed –Ing Syllables for Fifteen Listeners	275
Table 7.1	Complements to Be + V–Ing (+habitual) from Old to Modern English	296
Table 7.2	Data Shown in Figure 7.3	299
Table 7.3	Percentage of Direct Objects Following the Aspectual Verbs <i>Fall</i> and <i>Keep</i>	305
Table 7.4	Relative Frequency of Diachronic and Synchronic –Ing according to Morphological History	308
Table 7.5	Proportion of Participle Categories with Direct Objects occurring in the Nineteenth Century	310
Table 7.6	Functional Distribution of Verbal Nouns and Appositive Participles	314
Table 7.7	Distribution of Oblique Verbal Nouns and Appositive Participles according to Adverbial Function	315
Table 7.8	Distribution of Direct Objects following Verbal Nouns according to Syntactic Position	316
Table 7.9	Contact Points in the Grammar	318
Table 7.10	Attested Examples of Gerunds with Determiners and Direct Objects (15th – 19th Centuries)	327
Table 8.1	Orthographic Variants for –Ing in 19th Century Vernacular Verse	343
Table 8.2	Orthographic Variants in <i>Mr. Sprouts His Opinions</i>	344
Table 8.3	Spelling Variants in <i>Pickwick Papers</i> (1837 Edition)	345
Table 8.4	Orthographic Variants in Two Cornish Minor Dialogues	347
Table 8.5	Percentage of Nominal and Verbal Categories Edited as <i>in'</i> from Experiment 1	352
Table 8.6	Results of Editing Experiment 2	353
Table 8.7	Velar Application for Youngest British Speakers according to Grammatical Category and Sex	354
Appendices		
Table A.1	Percentage of Agreement for Each of Twenty (ING) Tokens	370
Table C.1	The 30 Syllable Types used as Stimuli in Experiment 1	379
Table C.2	The 30 Word Types used as Stimuli for Experiment 2	380
Table C.3	Percentage of Correct Guesses for Stressed Syllables with Final [n] and [ŋ] for Fifteen Speakers	382

Table C.4	Percentage of Correct Guesses for Unstressed –Ing Syllables for Fifteen Listeners	384
Table C.5	Percentage of Correct Guesses for [ɪn] and [əŋ] for Five Words	386
Table C.6	Comparison of Percentage of 100% Agreement for Phonetically-trained versus Phonetically-untrained Listeners	386

Figures

Figure 2.1	Schachter's Det–Nom Analysis	29
Figure 2.2	Horn's Poss–Ing Analysis	30
Figure 4.1	Discrete Feature Matrix	110
Figure 4.2	Classification of Grammatical Categories by Discrete Feature Matrix (excluding Gerunds, Acc–ing and Gerunds as NP Complements)	112
Figure 4.3	Correspondence Between Ross's Continuum (1972) and British (ING) Data	122
Figure 4.4	Correlation Between Ross's Continuum (1973) and British (ING) Data	123
Figure 4.5	Grouping of Gerunds on the Basis of Co-occurrence with Type of Determiner and Type of Control	128
Figure 4.6	Graphic Representation of Table 4.21	135
Figure 4.7	Graphic Representation of Data in Table 4.23	137
Figure 4.8	Graphic Representation of Data shown in Table 4.24	139
Figure 4.9	Distribution of Five Major Vowel Variants in (ING) for the Two Major British Dialect Regions	141
Figure 5.1	The Morphological Origins of (ING)	164
Figure 5.2	Verb Phrase Complements as Sentential Structures	193
Figure 5.3	Verb Phrase Complements as NP Structures	194
Figure 6.1	Correspondence between Old English Morphemes and –Ing and Categories in Modern English	224
Figure 6.2	Comparison of Final <e> and /ŋ/ for Historical Data and Synchronic Data	237
Figure 6.3	Paradigms for Old English Nouns	246
Figure 6.4	Representation of Data from Table 6.29	254
Figure 6.5	Percentage of Final <e> across Time for Gerunds and Present Participle according to Syntactic Position	265
Figure 6.6	Difference in the Data Samples for the Fifteenth Century	267

Figure 6.7 Percentage of Correct Guesses for Six Unstressed Variants of (ING) for Fifteen Listeners	276
Figure 7.1 Expansion of Horn's Poss-Ing Analysis	290
Figure 7.2 Auxiliary Expansion within Horn's Analysis	290
Figure 7.3 Percentage of Appositive Participles, Progressives, and Oblique Gerunds with Following Direct Object	299
Figure 7.4 Distribution of Total Data Base according to Century	309
Figure 7.5 Distribution of Gerunds in Subject/Object Positions versus Oblique Position, by Century	312
Figure 7.6 Graphic Representation of Data shown in Table 7.8	317
Figure 7.7 Schematization of Formal Identity of Three Suffixes	319

Appendices

Figure C.1 Graphic Representation of Data in Table C.3	383
Figure C.2 Graphic Representation of Data in Table C.4	385
Figure C.3 Percentage of Correct Guesses for Phonetically-trained and Untrained Listeners for Unstressed [in]	387
Figure C.4 Percentage of Correct Guesses for Phonetically-trained versus Untrained Listeners for Unstressed [əŋ]	388

Maps

Map 3.1 Location of Urban Centers Represented in the Synchronic Data	80
Map 3.2 Location of Regions within London Represented in the Synchronic Data	81
Map 4.1 Location of Cities Representing British Synchronic Corpus for (ING)	97
Map 4.2 Location of Regions within Greater London Area	99
Map 4.3 Spread of <ing> Spelling for the English Present Participle c.1450	100
Map 4.4 Probabilities of Velar Application for Modern British Data by Speech Community	105
Map 6.1 Location of 15th – 17th Century Data Shown in Table 6.17	235

1.0 Introduction

1.1 The Scope of the Present Study

This dissertation is an investigation into the origins of the modern sociolinguistic variable in English, (ING). The central thesis is to demonstrate the existence of an observable continuity between the past morphological history of (ING) and its present day status as a sociolinguistic variable. In pursuing this hypothesis, I am investigating an idea first expressed by Sturtevant (1917), which holds that the social evaluation of linguistic variables can be viewed as the result of a competition between forms originally not in variation with each other, but which are later brought together in a shared environment, becoming variants of a single form.

The morphological history of (ING) is complex. Prior to the fourteenth century, the present participle in English did not occur with the suffix *-ing*, but occurred with the suffix *-ind*. (Moore, Meech and Whitehall 1935), (Brunner 1963), (Campbell 1959). The suffix *-ing* occurred originally as a derivational suffix with Old English verbal nouns, e.g. *lufiung* 'loving' and masculine concrete nouns, e.g. *farthing*, 'farthing', (Moore 1963), (Irwin 1967).

The subsequent formal identity of the present participle and verbal noun has led to a number of accounts regarding the mechanisms which brought such an identity about, as well as the later consequences of this apparent merger.

Past studies of the history of modern *-ing* (Langenhove 1925), (Rooth 1941), (Irwin 1967) have focused on possible causes for the present participle's replacement of original *-ind* with *-ing*. Those accounts, with the exception of Irwin (1967), are not based on systematically collected (controlled) samples of data.

Past studies on the variable (ING), (Labov 1966), (Shuy, Wolfram and Riley 1968), (Anshen 1969), (Cofer 1972) have focused on the social factors which are correlated with the apical and velar variants of modern (ING).

The present study attempts to unify findings relevant to the historical expansion of *-ing* with what is known about the conditions influencing its current status as the linguistic variable (ING). In defining this goal I am pursuing the methodology presented in Labov (1978) of using the present to explain the past, as well as using the past to explain the present. My aim is, within a quantitative paradigm (G. Sankoff 1980), to determine whether present day factors conditioning (ING) can be located in an historically earlier time and place.

1.2 Five Aspects of Linguistic Change

In Weinreich, Labov and Herzog (1968), the authors outline five aspects to the question of language change.

One aspect, the *constraints* on linguistic change, raises the question of what limits exist constraining the types of language change which may occur in general. This dissertation focuses on linguistic *continuity* as well as on linguistic change.

The question of constraints arises in reference to the question of why the change in suffixes occurred in the direction it did, and not the other way around. It also arises with reference to the issue of the apparently increasing verbal (as opposed to nominal) function of (ING) in modern English. (See Chapter Seven). In addressing this question, I hope to contribute towards building the empirical foundations upon which a more general theory of constraints will eventually rest.

The aspect of *transition* refers to the problem of isolating the transitional point between two stages in the history of a linguistic change. This is perceived as a linguistically internal problem (Weinreich, Labov, Herzog 1968), but I would contend that it is a theory

dependent one as well. One way of representing linguistic transitions is to express them by either the addition, deletion, or re-ordering of categorical linguistic rules.

Examples of this type of approach to describing syntactic changes for example, are illustrated in recent generative work, (Traugott 1965), (Lightfoot 1979). This view assumes the validity of generalizing linguistic facts by such types of representation. In other words, characterizing changes in these terms, assumes the legitimacy of characterizing linguistic facts as a set of discrete, categorical statements.

A different way of expressing change is to show non-random shifts in the frequency of a linguistic element between separate time periods. Such shifts need not lead to the conclusion that the inventory of linguistic rules has been altered, but this depends on the model of language that is assumed. With respect to (ING), the problem is to show at what point invariance gave way to variation.

This requires stating what the initial invariant form or forms are, stating what the subsequent variant forms are, and providing evidence which shows a temporally situated point of transition between invariant forms to variation.

The aspect of the *embedding* of a linguistic change is defined as twofold. A linguistic change may be viewed in relation to other changes and other constants within the linguistic system, (Weinreich, Labov, Herzog 1968). There is a social aspect to embedding as well.

Linguistic changes occur within a social context which itself implies social constants and changes. At present there is good understanding of the embedding of modern (ING) within the social structure of diverse speech communities, (Labov 1966), (Levine and Crockett 1966), (Shuy, Wolfram and Riley 1968), (Anshen 1969), (Trudgill 1972), (Cofer 1972), (Reid 1978), (Douglas-Cowie 1978), (Woods 1979), and (Wald and Shopen 1981).

Less is known about the social embedding of this variable from an historical perspective. One scholar, (Wyld 1936), proposes that the variation between the apical and

velar nasal of (ING) arose in the 1820s as a result of *hypercorrection* (1) of /ɪŋ/ to /ɪŋ̥/ influenced by the standard spelling <ing>.

(Throughout this dissertation I will make use of a number of bracketing notations. The use of [] indicates phonetic notation, the use of / / indicates phonemic notation, () is used to indicate a linguistic variable, { } is used to represent morphemes, and < > is used to indicate orthographic representations. At times I will refer simply to -ing. In this case, I am usually leaving open the question of whether both spelling and morphemic status are being referred to.)

The task of explaining the reaction of a speech community to a change in progress, and the discovery of the expressive information it conveys, refer to the *evaluation* of a linguistic change. In this dissertation I consider some evidence of social evaluation of (ING) in an historical context, attempting to establish the origins of this evaluation, and discussing the implications for (ING) as a *social indicator*, *social marker* and *social stereotype*, (Labov 1972).

The *actuation* of a linguistic change addresses the question of why the change took place when and where it did. As in the case of the problem of constraints, the solution to the actuation problem will depend on the solution to many particular and situated problems of language change, brought together by some more abstract principles of language change.

This study will address the actuation problem briefly in the context of wider changes affecting the English language. Prior to the replacement of the present participle's suffix *-ind* with *-ing*, there is evidence of the dissolution of the Old English case system, (Moore 1927), (Campbell 1959), (Brunner 1963). Data used in this study (Chapter Six, Section 6.6.8) show this to have been essentially completed by about 1250, the time most scholars associate with the loss of Old English case marking, (Sievers 1903), (Wright and Wright 1925), (Campbell 1959).

1.3 General Remarkd on Methodology

The orientation and methods used in this study fall within the domain of current research in sociolinguistics (Labov 1966, 1972) and variation theory, (Labov and D.Sankoff 1979), (G. Sankoff 1980). The study makes use of natural data, both recorded speech samples, as well as samples of historical texts.

A total of about 30 hours of tape for the synchronic data was used, with 3309 tokens of (ING). A total of about 650 pages of historical text was used, with 2623 tokens of *-ing*. In addition, data from another historical study on *-ing* were included, (Irwin 1967). Irwin's sample represents another 700 pages of text with 1801 tokens compiled from her study. (For the details of Irwin's data see Chapter Six, Section 6.6).

1.3.1 The Vernacular

The concept of the *vernacular* has played an important role in sociolinguistics. It is sometimes viewed as an absolute notion, (Bernstein 1964a), and in other cases as a relative notion, (Hymes 1972). The latter implies that one person's vernacular may be another person's Sunday-best.

Labov (1966) defines the vernacular as speech which is the least-monitored by the speaker. Labov (1972) argues that this type of language is best-suited to the study of language change, since it is the most free from the interference of self-conscious hypercorrection, and also reflects the language which the speaker uses most often.

This last assumption has relevance for the interview situation because the interview does *not* represent the everyday speech setting for most speakers, but is a situation conducive to creating self-conscious speech. The interviewer must therefore be continually vigilant of this fact, always striving to find ways of decreasing self-consciousness.

1.3.2 Interviewing and the Observer's Paradox

The basic problem of obtaining natural, unmonitored speech in the presence of a tape recorder has been formulated by Labov as the *Observer's Paradox*, (Labov 1972). Because it is unethical to tape record speakers without their prior knowledge (all data in this study are based on recordings of which the speakers had full knowledge and agreement of), the interviewer is faced with the problem of how to minimize the effect the tape recorder has on making the speaker self-conscious.

Labov and his collaborators have developed a set of techniques over a number of years designed to reduce this problem. One method is the use of *modules* designed to move the speaker's focus of attention away from speech and onto topics which have been shown to be of interest to him or her. This of course will depend on the speaker and the particular values of interest to the speech community involved.

In this study the topics included in the interviews for the British and American speakers are: experiences with the family and neighborhood, growing up, dangerous life-threatening experiences, fate and the supernatural, fashion, childhood games, professional sports, life in the community, and schooling. Using such question modules not only provides a partial means for controlling the contents of the interview, but also provides a way for the interviewer to control the format of his or her own questions. Both of these make the data across speakers more comparable. (See Chapter Four, Section 4.1 for details on the synchronic data base).

Another way of lessening the impact of the tape recorder is to have group interviews, thereby creating a social context more familiar to the speaker. The two types of group interviews occurring in this study are (1) husband and wife, or family members together, and (2) peer groups, either young children or adolescents. The group situation provides an additional means for overcoming the tape recorder in that turn-taking among participant interviewees becomes relevant, and, once initial shyness is overcome, the

speakers often resort to conversational tactics designed to either maintain the turn, or take it from another speaker. The effect is to turn the speakers' attention towards natural conversational etiquette they use in everyday situations, and away from the more unique, awkward etiquette prevalent in taped interviews.

1.3.3 Problems with Approaching Vernacular Language In Historical Data

The means for obtaining or for approaching vernacular speech in historical data are considerably less precise than for the modern interview situation. The complete dependency on written language is the first consideration. Although the problem of the Observer's Paradox is not of concern, the writing process provides the writer with greater opportunities for controlling language than does spontaneous speech, because it is always possible to go back and edit what has been written.

It is generally assumed that writing reflects greater formality in style than speech. (Labov 1972), (Kroch and Hindle 1982). Yet if attention is paid to the genre of the writing and the educational background of the writer, it is possible to locate written sources which approximate the more vernacular spoken language than other sources, (Arnaud 1982), (Dees 1971).

The historical data used in this study are drawn in large part from personal letters and diaries, rather than religious and political writings. In addition, a small sample of dialogue from plays is used. (See Chapter Five, Section 5.1 for details on the historical data base). The evidence from occasional spellings is important for a topic such as the development of the (ING) variable; locating materials which reflect non-standardized spelling forms, especially in the earliest materials is very useful. Toon (1983) provides an excellent discussion of the problems and procedures for collecting historical materials which approach the vernacular.

1.4 Social Concepts and Language

The hallmark of sociolinguistics has been its success in locating linguistic structures, structures at various levels of abstraction, within a social setting, (Labov 1966), (Gumperz 1964), (Hymes 1972), (Milroy and Milroy 1978), and (G.Sankoff 1980). The specific details of such settings have varied across studies, but in every case the aim has been to associate the linguistic structures in question in a socially meaningful and real world, whose speakers use the linguistic structures for purposeful interaction. Only in this context is it believed that the relevance of social or external factors on linguistic (internal) structures can be determined.

1.4.1 The Speech Community

The concept of *speech community* has come to play a central role in nearly all sociolinguistic research. The definition of a speech community has varied somewhat among linguists. Hymes (1972) defines it as a community sharing rules for the conduct and interpretation of speech, and rules for the interpretation of at least one linguistic variety. Both conditions are necessary. (p. 54) Hymes goes on to discuss what he calls the *speech field* and the *language field*. What is important here is the idea that shared knowledge of linguistic varieties, rules and norms need not coincide with geographical proximity, but rely on something more abstract – social relationships which are realized in part through language use. To sum up, Hymes states that

"one's speech community may be, effectively, a single locality or portion of it; one's language field will be delimited by one's repertoire of varieties, one's speech field by one's repertoire of patterns of speaking. One's speech network is the effective union of these last two." (Hymes 1972, p.55)

Labov has characterized a speech community in one respect as united by a common evaluation of the same linguistic variable which differentiates the speakers of a community, (Labov 1966). For example, although the speakers in Labov's study of New York City speech (1966) showed stylistic and socio-economic differences for the occurrence of post-vocalic (r), these speakers shared norms of evaluation of this variable, i.e. that the presence of post-vocalic (r) is the prestige form.

In a more recent work, Labov has viewed speech communities as nested one into another. Thus, he provides evidence for a white Philadelphia speech community, based on observed patterns of the raising of short a, yet also views this community as part of the larger American English speech community, which in turn is part of the larger English speech community, (Labov 1983). Labov's view, however, is not that speech communities are infinitely divisible, (ultimately idiolectal). His point with reference to short a in Philadelphia is that the observed patterns are found across social class, across family, ethnic and neighborhood ties.

Milroy and Milroy (1978) and L. Milroy (1980) analyze speech communities at the more detailed level of *social network*. The importance of this concept is that it provides a mechanism for defining both linguistic variation and change; close knit social groups tend towards greater linguistic homogeneity, and loosely knit ones tend towards less homogeneity. An important mechanism for phonological standardization is then seen as the effect of external social forces contributing to the dissolution of closely knit social networks, (Milroy and Milroy 1978).

Although the current study does not provide a detailed view of a particular social network, the general mechanism of change described here is important when considering the history of *-ing* and the consequences of the rise of standard English.

The present study incorporates both British and American varieties of speech. Many of the results in this study will be interpreted at a level which includes more than individual, local communities. This point should be kept in mind throughout the ensuing

discussion. From this initial assumption and organizing principle the data will be tested for the relevance of such a principle for (ING) variation. In particular, it will be important to see the similarities and/or differences among the British urban communities on the one hand, and between the British and American communities on the other.

1.4.2 Inherent Linguistic Variation

Besides investigating the importance of the social setting to language, sociolinguistics has evolved out of an effort to resolve questions about variation in language. The association of social setting with variation is no accident; the concept of *inherent variation* places variation at the heart of linguistic structure in a number of ways.

Based on past studies of variation there are two major findings. Some variation in linguistic structure has been shown to correlate with social structure, (Labov 1965,1972), (Trudgill 1974), (Sankoff 1980) and (Guy 1980). Some variation in linguistic structure has been interpreted as an indication of linguistic change, (Labov 1966), (Labov, Yeager and Steiner 1972), (Cedergren 1973). In both cases, an appeal to a larger, external social theory has provided an account of why either type of variation might be expected.

In contrast to the view of inherent variation, (although not necessarily incompatible with it) is the idea that variation must always reflect instability, or ongoing change. The concept of *functional load* is associated with such a view. King (1978) discusses the following definition of *functional load*.

"The term functional load is customarily used in linguistics to describe the extent and degree of contrast between linguistic units, usually phonemes." (King 1978, p. 190).

This concept generally refers to a principle which regulates the *communicative function* of language, communication in a referential, information-theory sense, as opposed to communication in a social, evaluative one. Thus, mechanisms of language change are interpreted as relating wholly to the internal requirements of the linguistic

system, aiming towards maximal efficiency and minimum ambiguity, (Martinet 1952). In light of certain changes having occurred in the language, others will follow in the effort to stabilize any communicative disruptions instigated by the original changes.

The concept of functional load permeates accounts of linguistic change at the morphological and syntactic levels as well. At least one view of the mechanisms of syntactic change makes use of this concept. Lightfoot's theory of *syntactic re-analysis* is essentially a reformulation of functional load.

Lightfoot's thesis is that a series of unrelated (syntactic) changes in a language leads to an increasing complexity of the grammar (2) until the grammar undergoes some re-analysis. The result of such a re-analysis is to flatten out the derivational complexities. Implicit here is the notion of a processing constant. A language is assumed to have limits on derivational complexity which are related to cognitive limits of processing ability. The mechanism for syntactic change is thus described purely in reference to internal linguistic structures.

One of the most important points I will argue for in this dissertation is that discrete models of linguistic categories, in line with the generative matrix of syntactic features (Radford 1981), (Selkirk 1983), do not provide the best model for the categories which occur with (ING) in modern English. I will argue that the categories essentially form a continuum from nominal to verbal, more in line with proposals of Ross (1972), (1973) for grammatical continua, and that such a continuum is compatible with the possibility that linguistic systems can tolerate variation stably over time.

1.5 General Plan of the Study

I will briefly discuss the overall plan of the remainder of this dissertation. Chapter Two reviews the empirical findings on (ING), as well as the historical literature on the expansion of the *-ing* suffix. The goal of Chapter Two is to determine what is known with certainty about the history of *-ing*, and what unknown factors remain. In doing this I will

also evaluate the methods of the studies which have discussed the historical data on *-ing*. Chapter Three discusses the dimensions that are defined for the quantitative analysis. The justification for the inclusion of each dimension is explained, whether linguistic or social.

In discussing these dimensions, I will consider the notion of (ING) as a variable which spans a nominal–verbal continuum within its diverse functions, being involved in a number of grammatical *squishes*, (Ross 1972, 1973). The nominal–verbal continuum exhibited in the syntactic behavior of (ING) will be brought up throughout this study, both from a synchronic as well as a diachronic perspective.

Chapter Four presents the major quantitatively–based findings for the synchronic data. The focus is on the findings for urban speech communities in Britain, with reference made to two American southern speech communities, as a point of comparison. In this chapter I attempt to establish the residual existence of an historical event within the patterns of variation found for the modern British speech. This appears as both a grammatical effect as well as a geographical one. Other effects, including the influence of the vowel height preceding the nasal stop of (ING), are reported on as well.

Chapter Five examines the morphological history of all the grammatical constructions which today occur with (ING). The aim of this is twofold. The first is to illustrate that the modern variable includes forms which historically come from four different morphological sources, and to provide some indication of their earlier functions. The second is to show the distribution over time for these various constructions. The second point has relevance to the argument that the *-ing* suffix has been slowly evolving towards the more verbal functions.

Chapter Six reports the empirical findings for the historical data collected for this study, (15th through 19th century), and their corroboration with data on *-ing* from an earlier study which represent English from the eighth through the fifteenth centuries, (Irwin 1967).

I will argue that the orthographic link in the historical data which corresponds to the modern apical-velar variation of (ING) is not the presence or absence of final <g>, as some have argued, e.g., Wyld (1936), but the presence or absence of final <e> which follows the <g>. This argument examines Old and Middle English data which exhibit a gradual loss of final case marking, and show a subsequent realignment of remnant case markers in a wholly different function during the fifteenth century.

Related to this, I argue that the height of the vowel preceding the nasal may have contributed to the eventual adoption of the *-ing* suffix by the present participle, which had largely been replaced with *-ing* in the southern and Midland dialects by the fifteenth century, (see Moore, Meech and Whitehall (1935), Irwin (1967)).

Chapter Seven addresses the increasing verbalization of the *-ing* suffix as manifested in both the gerunds and participles. I argue that the increased verbalization illustrates that the modern grammatical effect is not a simple continuity with the past, but also represents the alignment of new categories with respect to the apical-verbal and velar-nominal association.

Chapter Seven also evaluates the thesis of *radical re-analysis* (Lightfoot 1979), in terms of how well it can model the facts relating to the history and development of (ING).

Chapter Eight reports on the development of the social evaluation of *-ing*. I argue that there is some basis for Wyld's statement that the apical variant became stigmatized in the early nineteenth century. More importantly, though and not consistent with Wyld's view, I argue that the social evaluation of the suffix is overlaid on the earlier, and still persistent, grammatically conditioned variation.

The results of speakers' intuitions about (ING) are reported here. This experiment relates findings on speakers' intuitions concerning their social evaluation of the apical form of (ING).

Chapter Nine provides a summary of the major findings and hypotheses of this study, and briefly remarks on directions for further research related to this topic.

Footnotes

1. Lawrence Carrington has pointed out to me a second meaning of this term (apart from Labov's (1966)). Writing in 1936 Wyld probably intended *hypercorrection* as simply a mistake in pronunciation influenced by spelling, not the intentional use of a prestige form, though given his view that the hypercorrection became prestigious, a relation to Labov's definition can be seen as well.

2. *Complexity* is defined in terms of levels of derivation from underlying to surface structures.

2.0 Three Perspectives on -ING

2.1 Introduction

The suffix *-ing* in English has been analyzed from essentially three separate traditions within linguistics. These approaches might be characterized as sociolinguistic, generative, and historical.

Sociolinguistic studies have addressed the problem of describing the conditions affecting the observed variation between the apical and nasal forms of *-ing*. It is this framework which has made use of the notion of the linguistic *variable* (ING). This variable has been shown to be conditioned by a number of social factors including gender, socio-economic class, and style. (Fischer 1958), (Labov 1966), (Shuy, Wolfram and Riley 1968), (Cofer 1972), (Trudgill 1972), and (Woods 1979).

The generative framework has not addressed the phonological variation of (ING). Instead, the status of *-ing* as an inflectional and derivational affix has been of concern. One important issue has been to determine the correct analysis of gerunds and in particular whether they are essentially verbal or nominal categories, (Lees 1960), (Chomsky 1970), (Wasow and Roeper 1972), (Ross 1972, 1973), (Schachter 1976), (Thompson 1973). Both generative and sociolinguistic studies have focused on the synchronic description of *-ing*.

Studies which have addressed the historical development of *-ing* antedate, for the most part, both the sociolinguistic and generative traditions. The central issue of these studies has been to determine the conditions which led to the replacement of the present participle suffix *-ind* with *-ing* during late Middle English, (Einenkel 1914), (Poutsma 1923), (Langenhove 1925), (Rooth 1941), (Dal 1952), (Irwin 1967).

2.2 The Sociolinguistic Variable (ING)

The variation between the apical and velar variants of (ING) has been recognized for about two hundred years. Evidence of this is found in both prescriptive statements (Walker 1791) as well as scholarly descriptive work on the history of English, (Wyld 1936).

Recent research in the past two decades on (ING) has shown a striking consistency across English speech communities with respect to its stable embedding within the social matrix. There is no evidence reported to suggest that the variation is indicative of a sound change in progress. The variable exhibits regular social and stylistic shifts in all of the speech communities reported on.

Fischer (1958) is the first quantitative study to report on the social effects conditioning the variation of (ING). Fischer studied (ING) in the speech of school children and observed that sex, orientation in school, and topic affected the proportion of apical to velar variants. These effects were revealed in a relatively small sample. The apical variant was associated with males, and casual speech.

Labov (1966) is the first study to demonstrate the social stratification of (ING). Labov's findings showed the independence of stylistic effect and socio-economic stratification on (ING). The regular patterns exhibited for this variable were shown to be independent of any single technique of social stratification. Labov's findings on (ING) showed a clear parallelism to other variables in the New York City speech community, e.g. (DH) and (TH).

The findings reported by Fischer and Labov have been repeated in English speech communities around the world including the United States, Canada, Great Britain and Australia. Table 2.1 summarizes the major results for (ING) in these studies.

Table 2.1
Summary of Sociolinguistic Studies on (ING)

			A	B	C	D	E	F	G
1.	Detroit	(1968)	108	4	37-74	Yes	—	2	—
2.	Hillsborough	(1969)	87	3	7-22	Yes	Yes	2	—
3.	Philadelphia	(1972)	15	4	57	—	Yes	4	—
4.	Norwich	(1972)	60	5	0-100	Yes	Yes	2	—
5.	Ottawa	(1978)	100	5	6-66	Yes	Yes	3	—
6.	Edinburgh	(1978)	16	3	0-100	—	Yes	2	—
7.	Northern Ireland	(1978)	10	4	15-100	—	Yes	2	—
8.	Canberra	(1980)	80	1	20	Yes	Yes	2	—
9.	Los Angeles	(1980)	88	1	25	Yes	Yes	2	—

KEY

A - number of informants	1. Shuy, Wolfram and Riley
B - number of social strata	2. Anshen
C - percentage [ŋ]	3. Cofer
D - report of gender effect	4. Trudgill
E - report of style effect	5. Woods
F - number of phonetic variants reported	6. Reid
G - report of grammatical effect	7. Douglas-Cowie
	8. Wald and Shopen
	9. Wald and Shopen

Note: The column under C sometimes indicates a range, and sometimes an overall average. The average is given only in those cases which the author provided it. The ranges for Detroit, Hillsborough and Ottawa indicate ranges for social groups. The ranges for Norwich, Edinburgh and Northern Ireland are ranges across individuals.

2.2.1 (ING) In Southern English and Black English

Anshen (1969) compared the distributions of (ING) in the speech of southern black speakers in Hillsboro, North Carolina, with those of white speakers in the same community, (Levine and Crockett 1966). Although the black and white speakers might be viewed as members of two separate dialect systems, (1) There were a number of parallels between them with respect to (ING).

For both black and white dialects the men use a higher percentage of N than the women, and higher percentages of the apical variant N were found in casual speech than in careful speech. Speakers with less education and less prestigious occupations also showed a higher percentage of N than their more educated counterparts. Overall, the blacks showed a higher percentage of N than the whites. In some instances for blacks, speech approached 100% apical pronunciation. (Throughout this dissertation I will make reference to the apical nasal variant as N and the velar nasal variant as G, following Wald and Shopen (1981). In using these forms, I am not making any assumptions about the height of the vowel preceding the nasal stop.)

Labov (1966) examined the distributions of (ING) according to ethnicity in the New York City speech community and found a correlation between blacks and high N usage. Comparing the results for black speakers from New York City to southern black speakers (Anshen 1969), Labov found that southern blacks use a higher percentage of N overall than their northern counterparts. Thus these results show both that (ING) crosses dialect

boundaries, but is also sensitive to geographical locale. The significance of geographical location will figure into the analysis of (ING) in both Chapters Four and Six.

2.2.2 Phonological Conditions Effecting (ING)

Besides the social effects there are linguistic factors which condition (ING). Two studies have reported on effects of *regressive assimilation* for (ING), (Shuy, Wolfram and Riley 1968), (Cofer 1972). In these two studies it was found that a following velar stop, /k,g/, significantly favored the G variant, whereas the presence of a preceding velar stop favored the N variant.

For example, in the expression *getting caught*, the /k/ following *-ing* favors G, and in the expression *speaking up*, the preceding /k/ disfavors G. Similarly, the expression *feeling tired* favors N due to the following apical /t/ whereas the expression *sending out* disfavors N due to the preceding apical /d/. This effect was found in the present study for British speech as well. These results are shown in Table 2.2. (For details on the data used in Table 2.2 see Chapter Four, Section 4.1).

Table 2.2
Effects of Regressive Assimilation and Dissimilation for
British (ING)

	preceding environment			following environment		
	%	p	N	%	p	N
+cons -back	21	.55	569	18	.42	857
+cons +back	11	.27	624	37	.76	126
glide	13	.47	551	18	.35	141
liquid	31	.58	215	26	.71	80
+cons +cont	34	.64	404	—	—	—
vowel	—	—	—	14	.31	816
pause	—	—	—	30	.42	343
	N = 2363			N = 2363		

Table 2.2 shows that the lowest probability of velar application for preceding environment is velar stops, ($p = .27$), and that the highest probability of velar application for following environment is velar stops, ($p = .76$).

The category with the features [+cons +cont] shows a high application of the velar variant for the preceding environment. This is due to the fact that interdental fricatives, [+cons -cont] are the preceding environment for the compounds *everything*, *anything*, *something* and *nothing*. In Chapter Four it will be shown that the compounds strongly favor applications of velar G. If these compounds are deleted, the effect of [+cons +cont] is not significant for preceding environment, and may be combined without significance with the labial and apical stops. In Table 2.2 for the following environment, the fricatives are shown combined with labial and apical stops. Vowel and pause are categories relevant only to the following environment.

These findings show that not only are external, social factors influencing the realization of (ING) in a regular, stable way across diverse speech communities, but internal linguistic factors are exhibiting such stable patterns as well.

The vowel preceding the nasal of (ING) has been assigned two values in most studies. The vowel variant associated with the velar nasal is [ɪ], and the variant associated with the apical nasal is [ə], (Shuy, Wolfram and Riley 1968), (Trudgill 1974), (Wald and Shopen 1981).

Woods (1979) reports a third major variant [in], which he states occurs more often among the middle classes in Ottawa than among either the highest or lowest class. In addition, he reports age difference for [in], with younger speakers showing a higher incidence than older speakers, although these data represent age gradience only over apparent time. Some evidence of social evaluation for [in] is cited by Woods; the CBC lists it as an expression to avoid in speech. (2) Woods states that unless the variant [in] receives greater than tertiary stress, his own findings suggest that the variant goes unnoticed, and is perceived as [ɪŋ], (Woods 1979, p.110).

The presence of the variant [in] was also recorded in the present study, frequently occurring in London speech. Table 2.3 shows the distributions of this variant for the British male and female speakers.

	%	N
Men	41.1	57/139
Women	58.9	82/139
	100	139

The hypothesis that a high tense front vowel influences the perception of a following nasal as a velar, is important in looking for phonetically motivated sources of confusion between the original present participle suffix *-ind* and its subsequent replacement with *-ing*. I will postpone discussion of this issue, however, until Chapter Six.

Cofer (1972) reports a difference between the nominal compounds *something/nothing* which both favor N, and *everything/anything* which favor G. This distinction was also found in the present study for American southern speech as shown in Table 2.4. These data are taken from a corpus of 850 tokens of (ING) representing speakers in Atlanta, Georgia and rural west Texas.

	Men		Women		N = 192
	%	N	%	N	
some/nothing	2	58	0	44	
every/anything	100	36	98	54	
		94		98	

The difference may be explained by differences in stress patterns between the two sets of compounds. *everything/anything* receive a secondary stress on *thing* because of their syllable structure, whereas *thing* is unstressed for *something/nothing*.

Yet, for the British speech analyzed for the present study, the difference between these two sets of compounds was noticeably weaker, as shown in Table 2.5. These data are taken from a corpus of 2363 examples of (ing) from a number of British urban speech

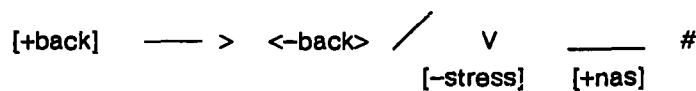
Table 2.5
Percentage of Velar Variant in British Speech
according to something, nothing, everything, anything

	Men		Women		
	%	N	%	N	
some/nothing	74	35	87	31	N = 122
every/anything	94	35	95	21	
	70		52		

2.2.3 Defining the Variable

The first reaction in the literature is to treat the variable as a *suffix*. Yet qualitative analysis has shown that the conditions affecting (ING) variation extend beyond *-ing* as an inflectional or derivational suffix. This was shown above with the nominal compounds in which *-ing* occurs as part of *thing*. It is also not a suffix in monomorphemic words such as *ceiling* and *morning*.

The variation therefore cannot be described solely in terms of a suffix, but as a more general variation in English affecting final nasals. This leads to a possible formulation of the variation as



The rule states that a back consonant (nasal) variably goes to minus back in the environment of a preceding unstressed vowel. The single # specifies a syllable boundary.

There are lexical exceptions to the general pattern described by the rule above.. The place names *Reading* and *Flushing* have been reported to occur invariably with velar /n/. There is also evidence that compound such as *everything, anything, something and nothing* show dialect specific patterns of variation with (ING), with *everything* and *anything* occurring categorically as /ŋ/ for some dialects. Because of these observed lexical exceptions, the rule postulates /ŋ/ → /n/, rather than /n/ → to /ŋ/.

The situation becomes more complex by reports of a grammatical effect on the variation. Stolz and Bills (ms.) in a dialect survey of west Texas, report that participles occur more often with apical N and gerunds occur more often with velar G. (Stolz and Bills, n.d., p.19) Gregg, in his recently completed dialect survey of Canadian English, (1984), also reports a grammatical effect for (ING).

Labov and his students in a research seminar of the Philadelphia speech community have observed a grammatical effect on (ING) as well. (3) The data shown in Table 2.6 are taken from the report by Hassan Abdel-Jawad (1979) on Fishtown.

<u>%</u>	<u>N</u>	
59	215	nominals/adjectives
28	86	gerunds
20	221	participles
4	26	periphrastic going to
<u>N = 548</u>		

The gerunds, which fall intermediately between nominal and verbal categories, are where they might be expected in Table 2.6, since they are considered to share both verbal and nominal traits. The very high percentage of N for the periphrastic future *going to* is largely due to the stability of *gonna* as a variant, pointed out by Abdel-Jawad.

All the studies mentioned so far report findings based on data which is both quantitatively based, (4) and exemplifies natural speech elicited in interviews.

The picture that emerges is of a widespread, highly stable variable, manifested across diverse English-speaking communities around the world. To date, no evidence has been provided to give any indication that (ING) is undergoing a change in progress. Aside from the well established social effects, a grammatical effect has been reported, (Stolz and Bills n.d.), (Abdel-Jawad 1979) and (Gregg 1984).

The observed grammatical effect raises the issue of what the correct formulation of the modern variation should be. There is no obvious synchronic explanation of the grammatical effect. In this dissertation I hope to establish that the grammatical effect is explained in part by looking at the morphological history of (ING).

2.2.4 Wyld's Hypothesis

Wyld (1936) argues that prior to the early 1800s (c.1820s), the universal pronunciation of *-ing* was apical /ɪn/, (Wyld 1936, p. 289). Because of the influence of spelling on the pronunciation of this form, however, he suggests that there was a change towards a pronunciation which followed the spelling, resulting in /ŋ/. This respect for the written word apparently contributed to the stigmatization of the original apical form in the 1820s, which has persisted to the present day. There are several problems with this view as it is articulated by Wyld.

Wyld does not address the question of what the pronunciation was of {ING} in Old English. By about 1250 the forms usually spelled <ing> represented the result of an apparent merger of two morphemes, one masculine, (5) and the other feminine, (Visser

1973), (Irwin 1967). The original masculine suffix, with which certain types of derived nouns in Old English were formed, was represented as <ing>; the original feminine suffix, with which abstract verbal nouns were derived, was represented as <ung>.

Given that both suffixes were spelled with a final <g> throughout their histories, including the time before Caxton, when English spelling corresponded more closely to pronunciation than it does today, (Wyld 1936), (Rosier and Marckwardt 1972), it seems likely that *-ing* was pronounced with a final velar stop. (The eventual loss of final *g* represents part of a larger trend which English underwent, which resulted in the loss of final *b* and *d* in the environment of a preceding nasal, e.g. *comb*, *lamb*, *handsome*. (Dobson 1957, p. 979) It is not clear from Wyld's discussion whether he assumes invariant N to have occurred throughout the history of English, or to represent a later development during late Middle English.

Some evidence for the N variant is provided by occasional spellings throughout late Middle and early modern English. Some writers show variant spellings for *-ing* in which <g> is missing, i.e. <in>. (6) It is largely on the basis of this evidence that Wyld maintains his view. The following examples illustrate evidence cited by Wyld. The earliest evidence he cites is from the Norfolk Guilds.

Norfolk Guilds (1389)

holdyn
drykyn

Margaret Paston (1443)

wrytyn
hangyn
devysyn

John Machyn (1550)

syttyn
rydyn
standyn

Verney Memoirs (1642)

seein
bein
plonderin
missin
comin

Yet other spelling variants occurring in late Middle English are apparently overlooked. Some of these occur in the same sources from which Wyld draws his examples of the <in> variant, e.g. *Paston Letters*. These spellings include the variant <ig> which, in both my historical data, and the data compiled from Irwin (1967), is found more often than <in> as an occasional spelling of *-Ing*. The following examples are taken from my data from the *Paston Letters*, and from Irwin (1967).

Paston Letters		Irwin (1967)	
<i>prayig</i>	p. 227	<i>costug</i>	10th century
<i>demenyg</i>	p. 188	<i>leornigcnihta</i>	11th century
<i>trustig</i>	p. 65	<i>leornigcnihtum</i>	12th century
<i>besechig</i>	p. 68	<i>wylnygge</i>	14th century
<i>Alygton</i>	p. 84	<i>begynnyges</i>	14th century
		<i>schornigis</i>	14th century

In Chapter Eight it will be argued that the N variant became stigmatized in the early nineteenth century, but this view does not preclude the possibility of variation between both N and G prior to the stigmatization of N. What is at issue here is how long there existed variation between the apical and velar forms associated with *-Ing*, and what the mechanisms were which contributed to the social and stylistic stratification of the variable.

Wyld does not succeed in establishing the embedding of this social variable during the nineteenth century, apart from the general assumption that literate speakers stigmatized N first, and that the writings of less educated persons, women in particular, manifest the occasional spelling <in> the most. Without a controlled data base in which the envelope of variability can be defined, Wyld's conclusions are difficult to assess. He does not discuss the variation with respect to different grammatical categories.

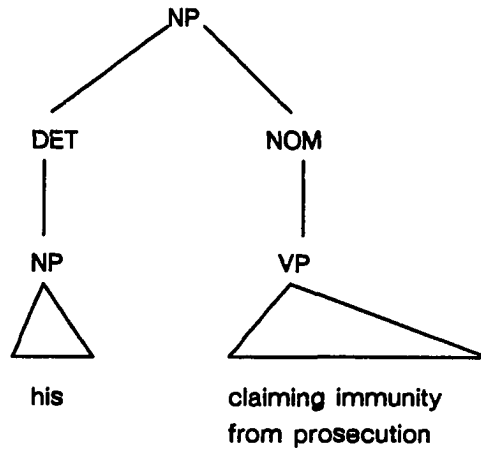
2.3 The Analysis of –ING within Generative Syntax

Generative analyses of the *-ing* suffix have adhered to the Saussurian principle of separating synchronic from diachronic accounts of grammar, (Saussure 1916). For example, the differences between *nominal* and *verbal* gerunds (7) are persistently framed in terms of structurally discrete analyses, which make no reference to the history of these two forms, (Chomsky 1970), (Wasow and Roeper 1972), (Horn 1975) and (Schachter 1976).

From the time of Lee's monograph (Lee 1960) on the different types of gerund, to Chomsky's division between transformationally derived gerunds and lexically generated ones (Chomsky 1970), much of the interest in gerunds within generative grammar has persisted with the task of providing an adequate representation of the verbal and nominal properties of gerunds. Schachter's view (1976) is that *verbal gerunds* (which he refers to as *gerundive nominals*) are nominalized verb phrases assigned the underlying structure shown in Figure 2.1 below. Throughout this dissertation I will adopt the terminology of Wasow and Roeper in referring to gerunds exhibiting verbal traits as *verbal gerunds*, and those with nominal traits as *nominal gerunds*. Any exceptions to this convention in terminology will be stated explicitly. Verbal gerunds co-occur with direct objects, adverbial modification, and aspectual marking. Nominal gerunds co-occur with oblique objects, adjectival modification and the absence of aspectual marking. The difference is illustrated in examples (a) and (b).

- (a) We were surprised at *his unexpectedly having won the election*.
verbal gerund
- (b) We were surprised at *his unexpected winning of the election*.
nominal gerund

Figure 2.1
Schachter's Det-Nom Analysis



The phrase structure rules postulated are:

NP → (DET) NOM
S

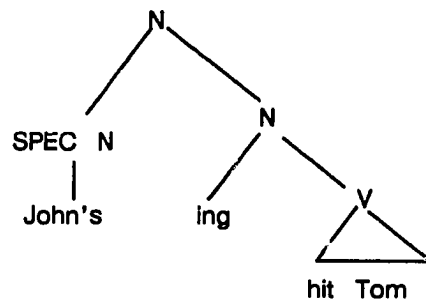
NOM → NOM S (generates restricted relative clauses)
(ADJ) N (generates noun phrases)
VP (generates verbal gerunds)

This analysis reveals the inherent tension that gerunds create for a model which postulates discrete categories for nominal and verbal elements. The phrase structure rules above show that NOM can be expanded as either N or VP. This expansion is required only for gerunds, and for no other verb phrases, making the rule somewhat ad hoc. In addition, Schachter can provide no obvious way to block the generation of definite and indefinite articles under DET. Both are ungrammatical before gerunds in modern English.

*the/*a claiming immunity from prosecution

Horn (1975) acknowledges that this is a problem for his own analysis for Poss-ing constructions, which he assumes to be underlying nominal constructions, not sentential. The structure Horn assigns to Poss-ing is shown in Figure 2.2.

Figure 2.2
Horn's Poss-ing Analysis



Although the analysis in Figure 2.2 correctly generates *John's hitting Tom*, as well as providing an analysis of Poss-ing with auxiliaries, (8) it will also generate **The hitting Tom*.

Such constructions are in fact found in early modern English. (See Chapter Seven, section 7.5.2.2) for examples). Armstrong (1892) suggests that these were intermediate construction types between the original highly nominal verbal nouns of Old English, and the later verbal gerunds. A fuller account of the development of gerunds is given below in Section 2.6. These data illustrate the value in looking at the history of forms, the understanding of which can broaden the perspective on otherwise isolated puzzles for which no synchronic explanation is apparent.

In both the above analyses it is apparent that constructions which exhibit neither exclusively nominal or verbal properties are being fitted into representations which draw a discrete boundary between nominal and verbal categories. The artificiality surfaces in

phrase structure rules such as NOM → VP, and the fact that DET must somehow block *the* and *a* in certain contexts.

Ross (1972, 1973) develops a model without discrete categorical representations of the nominal/verbal traits associated with *-ing*. One such model is a *quasi-continuum* with the most verbal elements at one end, and the most nominal at the other. One such continuum is defined as follows:

**verb > present participle > perfect participle > adjective >
preposition > adjectival noun > noun**

(Ross 1972)

Along this scale are categories which occur with *-ing*, e.g. the present participle, and prepositions (e.g. *concerning during*). This scale, unlike the discrete analyses discussed above, provides a promising point of comparison for the probabilistic effect on (ING) discussed in Table 2.5 above.

Ross has also postulated a nominal-verbal scale for complement types, relevant to gerundive constructions:

**that > for to > acc-ing > poss-ing > action nominal >
derived nominal > noun**

(Ross 1973)

There are a number of syntactic tests enumerated by Ross which provide the basis for aligning these complement types along the scale. His general finding is that the application of various syntactic tests to the construction types shown above does not consistently result in discrete grammaticality judgements. The gradient acceptability of a rule application, (or co-occurrence relation to different constructions) forms the basis for

the continuum. Some rules favor application with constructions at the verbal end of the scale, whereas others favor application with constructions at the nominal end.

An example of a co-occurrence relation more acceptable with verbal categories is the presence of *NOT* with various types of subjects.

(2.1) *That he does not prepare dinner* is good for her health.
THAT

(2.2) *For him not to prepare dinner* is good for her health.
FOR-TO

(2.3) *Why he does not prepare dinner* is good for her health.
Q

(2.4) *Him not preparing dinner* is good for her health.
ACC-ING

(2.5) *?His not preparing dinner* is good for her health.
POSS-ING

(2.6) **His not preparing of dinner* is good for her health.
ACTION NOMINAL

(2.7) ***His not preparation of dinner* is good for her health.
NOUN

(Examples and judgements taken from Ross 1973b, p. 163)

The acceptability of *not* in subjects exhibiting the most verbal characteristics is greater than those showing the most nominal ones. My own intuitions agree with Ross's, both with respect to the direction and gradience of acceptability. (9)

An example of a rule favoring nominal categories is *Plural Agreement*, which shows plural marking on the main verb following a conjoined subject. Ross's judgements are shown in the following examples.

(2.8) **That he lost and that you won* are wonderful.
THAT

(2.9) **For him to lose and for you to win* are wonderful.
FOR-TO

- (2.10) *?Him winning and you losing* are wonderful.
ACC-ING
- (2.11) *??His winning and your losing* are wonderful.
POSS-ING
- (2.12) *Jack's winning of the bingo tournament, and your losing of the hopscotch marathon,* were unexpected joys.
ACTION NOMINAL
- (2.13) *Senator Phogbottom's nomination and the ensuing rebellion in Belgrade* were unforeseen by your computer.
NOUN

(Examples and judgements from Ross 1973b, p. 165)

Again my own intuitions are in agreement with Ross's, both with respect to the direction of acceptability and to the existence of some gradience in acceptability. (10) Ross's findings establish grounds for the idea that the grammatical status of a form might not be determined by a set of discretely specified co-occurrence relations, but that such relations may not be sharply demarcated, suggesting that categories exist along a continuum.

2.4 The Historical Approach to -ING

The studies which have addressed the history of *-ing* are pre-generative in outlook. There are two types of answers provided to the question of why the suffix of the present participle was replaced with *-ing*. One answer refers to processes of phonetic leveling and the other to more abstract processes of syntactic syncretism.

2.4.1 The Theory of Phonetic Leveling

There is some consensus among scholars that, with respect to phonetic leveling, the consonant represented by the grapheme <d> in the present participle suffix *-ind* was

lost prior to the replacement of *-ind* by *-ing*. This is in line with the general trend of final stop deletion mentioned in Section 2.2.4 above.

Poutsma (1923) argues that final /d/ was lost from the present participle first in the southern and Midland regions of England, during Middle English. Following this loss, the final nasals of the participle and the verbal noun became confused with each other. A consequence to this was the eventual uniform spelling of both as <ing>.

Mosse (1952) argues that *-ind* became assimilated to *-ing* as the result of a leveling process of both suffixes. This resulted in a number of potential confusions:

nd > n
n > ng
ng > n
n > ng
ng > nd
nd > ng

Subsequent to this was a morphological confusion between the two forms which resulted in the verbal noun acquiring additional verbal characteristics.

Langenhove (1925) assumes that [ng] > [n] occurred as early as Old English in southern dialects of England. He argues that some evidence suggests that this variant was conditioned by a following pause and by dentals and palatals.

For example, the following occasional spellings are cited from Old English: before a following consonant *cynin min* 'my king' (Vespian Psalter, *rex meus*) and before a following pause, the form *amon.* 'among', (The Owl and the Nightingale). The '.' indicates a pause, although Langenhove's justification for assuming such a close relationship between speech and writing might be questioned.

Langenhove assumes that the graphemes <nd> represented the sounds [nd], [nt], and [n]. The graphemes <ng> represented the sounds [ng], [nk], [n], and [ŋ]. The replacement of the present participle representation <ind> with <ing> was motivated by the confusion of the pronunciations associated with these spellings. From the above values

which Langenhove gives, we must assume that the confusion involved [n], and possibly [ŋ], because the presence of final stops would tend to maintain a distinction.

Yet this does not provide an explanation for why the orthography should preserve <ing> rather than <in>, nor does Langenhove provide a discussion of the articulatory mechanisms contributing to the confusion of [n] with [ŋ]. He states only that the process of substituting [ŋ] for [n] is a process observable today in English, (Langenhove 1925) (11)

Irwin (1967) reports no instances of the graphemic form <nd> as an alternate spelling of <ng>. In her quantitative study of the history of *-ing*, from the eighth to the fifteenth centuries, (Irwin 1967, p.187). In contrast, her data support the idea of there being a uni-directional change in the spelling, rather than a randomized spelling confusion between two forms. Irwin's data show that the present participle did not retain both spelling alternants, *-ind* and *-ing* for more than about one century. In other words, once the replacement of *-ind* with *-ing* had begun, it was completed within about a century. (See Chapter Six, Table 6.27 for evidence of this).

Dobson (1957) argues that [Ind] > [Ing] is not a likely change, from the point of view of articulatory phonetics. If it did occur, he argues that it was a very isolated instance involving only the two grammatical categories of participle and verbal noun. He considers one possibility which could result in the confusion of the two suffixes. This is the case where {ind} and {ing} are assumed to have originally ended in voiced stops (/d/ and /g/ respectively), and later lost them, (Middle English). The resulting phonological forms with final nasals would be more easily confused, especially if the syllables were unstressed.

Another possibility entertained by Dobson is that a high front vowel preceding the nasal would tend to pull the velar nasal forward, for reasons of articulation. Again, this doesn't explain why the spelling persists as <ing> rather than <in>, nor the modern standard phonological variant /ɪŋ/, rather than /in/.

Rooth (1941) argues that {ind} was represented graphemically as <ing> first in the southern dialects. The northern spelling of the vowel as <a>, e.g. <and>, may have

represented a low back vowel, e.g. /a/. In the north {ind} was not represented graphemically as <ing> until after 1400. Rooth further suggests that the palatalization of [nd] and [ng] would result in [nn] and [n] respectively, and that this would raise the vowel [e] to [i].

He cites parallel cases of such palatalization for other Germanic languages. These languages include: Old Franconian, Old Frisian, Old Saxon, Middle Low German, Middle High German, and Middle English, (Rooth 1941).

Einenkel (1914) is alone in conjecturing the following change of the present participle's suffix.

/nd/ > /ng/

He states such a series of changes occurred in German also, in the region north of Leipzig. This resulted in such changes as *kinder* 'children' > *kinger*, although here the environment is not final position.

From the preceding discussion it can be seen that a clear account of the mechanisms of this change is lacking. Views range from postulating a shift from [n] to [ŋ], as well as from [ŋ] to [n], and there is not a consensus as to whether the final stops were present at the time of the replacement of <ind> with <ing>.

2.4.2 The Theory of Functional Shift

Because the replacement of *-ind* with *-ing* does not represent a general sound change in English, but is confined to essentially {ind}, the question arises as to whether a grammatical affinity between participle and gerund was responsible for the subsequent identity of form. This has already been alluded to in the preceding discussion.

A number of views have been expressed as to the causes for the increased verbalization of the gerunds. Without evidence of increased verbalization, there is little

motivation for supposing that speakers confused an essentially verbal element of the language with a nominal one.

Langenhove (1925) includes the infinitive in the discussion of this issue. He attributes significance to the shared syntactic environment of the gerund and the infinitive, observed in modern English in the following pair of examples: *seeing is believing* and *to see is to believe*. (ref pxx)

Langenhove's hypothesis is that the modern verbal gerund developed from the inflected infinitive. (12) Its verbal characteristics are due to the influence of this form in the syntactic environments shared by the two. He stresses that the present participle did not contribute to the development of the gerund. The later apparent merger of *-ind* and *-ing* was a consequence of general phonetic leveling of both suffixes, not syntactic similarity. If Langenhove is correct, the formal identity between participle and gerund is completely incidental to the increasingly verbal characteristics of the gerund in modern English.

Langenhove cites further evidence for the infinitive's influence, by pointing to spellings in late Middle English which show the infinitive occurring with final <ing>.

Einenkel (1914) and Armstrong (1892) express the view that /nd/ occurred in place of /nn/ on the inflected infinitive during the thirteenth century, and this established, in turn, the condition for replacement of /nd/ with /ng/ on the infinitive. This latter change is assumed to be by analogy with the present participle's change.

Irwin (1967, p.187) also reports a number of cases in which the <enne> spelling for the inflected infinitive is replaced with <ende>, one variant of the present participle.

11th century – 1 instance	<ende>	for	<enne>
12th century – 1 instance	<enge>	for	<enne>
13th century – 9 instances	<ende>	for	<enne>

Langenhove's interpretation of these facts is that the appearance of <nd> in place of <nn> on the infinitive is shown only in texts representative of the southern dialects of

Middle English, whereas the appearance of <ng> for <nn> is shown for both the south and Midlands, (pp.119, 122–127). In other words, the replacement of the infinitive <nn> with <ing> is more widespread than its replacement with <nd>.

Yet <nd> in general was being replaced by <ng> at this time in the south and midlands, (Moore, Meech and Whitehall 1935), (Irwin 1967), so the views of Einkenel and Armstrong are as compelling as those of Langenhove, on the basis of this type of evidence. There is also no syntactic argumentation provided by Langenhove to determine the functional proximity of the inflected infinitive and the verbal noun, apart from the single environment cited above.

One problem with Langenhove's account is that in Modern English, although the present participle and the descendants of the old verbal noun (the gerunds) are formally identical, the infinitive has retained a separate form. If Langenhove were correct, it remains a puzzle why the infinitive remains a separate form today. The only environment shared by *-ing* and the infinitive today, besides the one mentioned, are constructions with quasi modals, e.g. *it started to rain* and *it started raining*.

Armstrong (1892) does not believe that the inflected infinitive (e.g. *to bodlenne* – 'to preach') played any role in the gerund's development. He suggests that by the 14th century the inflected infinitive, which by this time is cited as *to seethinge* = 'to be sodden', is functionally replaced in the language by the modern infinitive *to seethe*.

Earlier, the inflected infinitive had served as an expression of purpose, as in *geweald to gyrwanne* = 'power (for purpose) of working', (Armstrong, p.200). In later Old English this meaning is still conveyed, although the construction has adopted the present participle ending, *coman Crist to wurthiende* = 'they came to honor Christ', (Armstrong, p. 200). The appearance of *for + to* in Middle English is interpreted by Armstrong as evidence that the expressive force of *to* as purpose has become weakened.

Armstrong cites examples from the fourteenth century which show the verbal noun co-occurring with direct objects, a verbal trait. The examples include *In shaving oure*

berdes (Maundeville, Armstrong, p. 201) and *This shewing shrifte...shall be meryte to the (thee)*, (Piers Plowman, Armstrong p. 201).

Curme (1912), in a lengthy article on the history of the English gerund, presents the following argument. The gerund has existed as a verbal element since the time of Old English. Therefore the present participle exerted almost no influence on its verbal development. Gerunds which take direct objects are largely the result of word order changes in the language, coupled with the loss of final inflections.

In Old English there are attested forms of compounds whose first element bears the relation of object to the adjacent following element in *-ing*, e.g., *bocareadung* = 'book reading'. In this example, *boca* is the genitive plural of 'books', and is understood as the object of reading. Later (though scholars don't agree when), and largely due to the erosion of the inflectional system, the object stands separately from the element with *-ing*. Van der Gaaf (1928) gives a number of examples from Middle English which support this view.

c.1300 the vertus of *messe sinnynge* (the virtues of mass singing)
Log. F. Mass B., C 9 (van der Gaaf, p. 34)

c.1385 and that with-ouen wrong or *harm-doinge* to any other
persone. Chaucer Cant. B 2771, 2 (van der Gaaf, p. 34)

Other examples cited include *distress takyng* (1469 Paston Letters, LXXX), *tythe gaderyng* (1528, Roy and Barlowe), *hay Makyng* (1553 Republica III, VI, 75), (van der Gaaf 1928, p.34)

Eventually the occurrence of a preceding article came to be associated with the object noun, as opposed to the compound. Following this syntactic independence came a shift in word order during late Middle English. Constructions such as *this letter writing* give way to constructions such as *the writing of this letter*, Eventually, the oblique case of the

object is replaced with a direct object, *writing the letter*. The variation between these two words orders can be seen at least as late as the early seventeenth century.

he will...Deliver unto the Deputy for this Company, his severall passes,
to and fro,...without *alteringe figures or words blottinge*.

(1630 Acts and Ordinances of the Eastland Company Camden Society,
p. 62)

Although the compounds in Old English with preceding objects are attested much more often than compounds with preceding subjects (van der Gaaf 1928) the latter do occur as well. They follow the same word order variation described above, with the exception that these subjects do not become direct objects.

The variation among these constructions can be seen in the following examples cited in Hampole's *The Pricke of Conscience*.

the dedes commyng (*the dead's coming*)
the aede commyng
the commyng of the dede

Callaway (1929) argues against the view that the association of verbal properties with verbal nouns was organic to Old English, as Curme suggests it is. He points out that in every instance of an apparent gerund with verbal traits which occurs in Old English, there is a Latin original corresponding to it. In other words, these all represent instances of translation from a language which itself did possess a gerund taking a direct object.

libros (masc. pl. acc.) *legendo* = reading books

Weber (1900) supports Callaway's view as well. He states that before the writings of Wyclif and Chaucer, gerunds which take direct objects, (as opposed to being compounds), occur only in translator's English. From the discussion of his methodology it appears that he counted occurrences of forms exhaustively within given texts, a procedure not clearly documented in most of these studies. Weber reports the following figures for

translations of Latin gerunds from the Vulgate into English in *The Earliest English Prose Psalter*.

In five passages from the Vulgate there were 29 instances of the Latin construction preposition + gerund + object. These were translated into English as follows:

17 translations into a nominal form (verbal noun)

10 translations into a present participle

2 translations into an inflected infinitive

Weber also reports that in all of Aelfric's *Grammar*, every original Latin gerund has been translated into the inflected infinitive, with one exception. The exception is the ablative case of the Latin gerunds which are translated by the English present participle. He reports exactly these findings for Alfred's *Pastoral Care*, (Weber 1900, p. xxvi). He illustrates this by providing the following paradigm, based on translated forms for Defensor's *Liber Scintillarum*.

<i>amandum</i>	=	<i>lufigenne</i>	
<i>amandi</i>	=	<i>lufigenne</i>	(infinitive)
<i>amando</i>	=	<i>lufigende</i>	(participle)

It is surprising that few of the scholars mentioned, apart from Callaway and Weber, address the point that much of the evidence cited in support of verbal traits on the Old English verbal nouns comes from sources of ultimately non-native origins.

Curme conjectures that the noun preceding the verbal noun became the direct object when its *logical case* was felt to be accusative, but its surface case was indeterminate. He argues that this contributed to the noun's eventual appearance *after* the verbal noun. Callaway points out that a similar situation existed for the present participle, e.g. *dream-healend*, and yet this did *not* result in the appearance of the nominal object following the verbal noun during the period of Old English. (Callaway 1929, p.37).

The preceding discussion has revealed several views on the possibility of functional similarities between participle and gerund on the one hand, and infinitive and gerund on the other. If the gerunds possessed a highly verbal status from the time of Old English, as Curme has argued, then the possibility of a later functional confusion between participle and gerund would be more likely, especially following a formal identity. On the other hand, if the gerunds were essentially nominal at the time of formal identity with the participle, then there is less reason to suppose that there would be functional confusion between them. This issue will be of importance in Chapter Seven when arguments for the origin of the progressive are considered.

The arguments presented for the role of the infinitive bear only indirectly on the question of the formal identity of participle and gerund. Regardless of occasional spelling of the infinitive with final <ing>, the infinitive today does not occur with this ending, in contrast to the present participle. The syntactic environments shared by the infinitive and the gerund in modern English are not extensive. (See Chapter Seven, Section 7.6).

2.5 Summary

This chapter has reviewed research on *-ing* from three perspectives within linguistics. This chapter has shown that there is at present a fairly constant evaluation of (ING) across geographically disperse speech communities, even to the point where this evaluation is manifested across English dialect systems as diverse as Standard English and Black English Vernacular. It has also discussed evidence in support of the view that the historical replacement of the present participle's suffix *-ind* with *-ing* occurred first in the southern and Midland dialects of England.

Besides the effects of social factors on the variation of (ING), recent studies reveal a fairly consistent pattern of phonological conditioning, e.g. regressive assimilation and progressive dissimilation. A syntactic effect was reported also. The phonological effects are probably best understood as ahistorical phonotactic conditions, with analogous processes

occurring today for other sets of elements within the phonology of English, and indeed in other languages. The syntactic effect has no immediate explanation and will be discussed at length in Chapters Four and Six.

The literature on the history of *-ing* has converged only on one fact; there was a spelling replacement of <nd> on the present participle in English with <ng>. The reasons for this change and the subsequent effects it had on the grammar of the language are fairly diverse, as already discussed. It is not always clear from the views of these authors what the phonetic or phonological processes were related to *-ind* and *-ing*.

It is also not clear what morphological or syntactic changes might have contributed to a possible confusion between the infinitive and the verbal noun, and how such a confusion could contribute to the participle's replacement of *-ind* with *-ing*. It is also not clear what processes led to a possible confusion between the present participle and the verbal noun in terms of their syntactic functions. With the exception of Wyld, the historical literature does not address the issue of the development of (ING) as a social variable. What is needed, in light of the preceding discussion of the three linguistic traditions, is a well articulated link between the established facts of the morphological history of *-ing* and the established facts of its sociolinguistic status in the modern language. The purpose of this study is to establish such links. In striving towards that goal, I hope to contribute towards a better understanding of the mechanisms of how linguistic structures become social variables, and the more general issue of how categorical linguistic structures become variables in any manner, social or otherwise.

Footnotes

1. Labov (1972) views BEV as essentially part of the same system as SE with low level differences between them, usually at the level of phonological representation. Dayton <p.c.> views these dialects as having fairly profound distinctions in the tense aspect system. In this study I have not examined BEV, nor the possibility of a parallel grammatical effect on (ING) reported on already for SE. Such a parallel would be of interest, since it would be consistent with the view that the major categories realized with (ING) share the same nominal-verbal continuum across these dialects.
2. In *You Don't Say*, 1978, vol. 2, issue 4. CBC Toronto.)
3. In a research seminar conducted by Labov in 1978 students found a grammatical effect conditioning (ING); the more nominal categories of this variable favored the velar variant, the more verbal categories favored the apical variant. In 1983 Labov's students found that in the Philadelphia speech community recent immigrants to the United States who were still learning English revealed this grammatical condition in their speech.
4. By quantitatively based I mean that, for a given corpus, all instances of the variable are taken into account in the statistical measurements, and these are the data which form the basis for the analysis. In contrast, anecdotal data reports on selective instances of a variant in corpuses which are (usually) not exhaustively specified. This method of defining the *envelope of variation* (Labov 1972) is essential for the type of statistics used in this study, the VARBRUL II program, implemented by Sankoff and Cedergren (1974).
5. Actually there were three masculine morphemes; -one denoting place names, another denoting names of descent, and a third denoting common nouns. but all took masculine case marking and were formally identical.
6. The presence of the apostrophe, i.e. <in'> is not shown in any historical data I have looked at or seen discussed by other authors until the 19th century. In Chapter Eight I will discuss this important orthographic development.
7. This terminology is adapted from Wasow and Roeper (1972), *Nominal gerunds* are those which take oblique objects only, adjectival modification, and do not allow the presence of auxiliary elements, e.g. as illustrated by the passive. *Verbal gerunds* may take direct objects, adverbial modification and auxiliary elements. The difference is illustrated in the following two examples.

(7.1) I wasn't surprised at *Mary's having consistently beaten John at chess*. Verbal Gerund

(7.2) I wasn't surprised at *Mary's constant retelling of that joke*. Nominal Gerund

8. Horn generates Poss-ing with auxiliaries under the V as SPEC V as in the examples *Tom's having been hit by John* and *John's having hit Tom*.

9. I solicited the judgements of 10 other native English speakers, whose judgements paralleled my own and Ross's at the extremes, i.e. (2.1) and (2.6) and (2.7). The intermediate examples, (2.2) – (2.5) initiated fuzzy responses, all ten speakers changed their minds as to the degree of acceptability upon hearing the examples read more than once,, 4 reversing their judgements, and 6 allowing some degree of semi-acceptability.

10. I solicited the judgements of 10 other native English speakers. In this case, two speakers found all six examples equally acceptable, the other eight showed judgements similar to my own and Ross's, rejecting (2.8) and (2.9) and clearly accepting (2.12) and (2.13), with some uncertainty and changing of minds with the intermediate examples.

11. As late as the 19th century, however, there are attested spellings of *kitchen* as <kitching> and *captain* as <capting>. (Burlesque of Shakespeare) (A. Ellis)

12. "The Old English abstract verbal noun in -ung, -ing, frequently had the same function as the inflected infinitive" (Langenhove: 101, f., 128, 132; Brunner, 80.2)

3.0 Description of the Data Base

3.1 Introduction

This chapter defines the envelope of variation for the variable (ING) and includes a discussion of the complete set of parameters used in this study for the synchronic and diachronic data. In most cases the parameters are relevant to both sets of data; exceptions to this are the exclusion of orthographic variants from the synchronic spoken data, and exclusion of the phonological environments for (ING) from the historical data.

3.2 Description of the Factor Groups

This study uses the VARBRUL II model developed by Cedergren and Sankoff (1974) designed to measure the statistical significance of patterns of linguistic variation. This model is used for both (ING) in its present-day form as well as the historical forms of *-ing* beginning from the early fifteenth century down to the present.

The VARBRUL II program requires that an envelope be defined for the dependent variable, defining the range of possible environments in which the variable may occur. In order to derive meaningful probabilities from the frequencies for the N and G variants of (ING) as they occur in diverse environments, it is essential that the environments in which either variant could occur in, are exhaustively determined.

A number of phonological, syntactic, semantic, and social factors have been taken into account as possible influences affecting (ING). It has been necessary to divide the data into two bodies, synchronic tape-recorded speech, and diachronic textual materials.

Fourteen independent factor groups were defined for the synchronic data and are shown in Table 3.1.

Table 3.1

Independent Factor Groups for the Synchronic Data

1. preceding phonological environment
2. following phonological environment
3. vowel quality of the (ING) nucleus
4. grammatical function of (ING)
5. type of gerund (when form is a gerund)
6. preceding modifier of gerunds
7. syntactic control of gerunds
8. semantic content
9. etymology
10. clause type (ING) occurs in
11. geographical region
12. age
13. sex
14. syllable stem stress pattern

Thirteen factor groups were defined for the historical data and are shown in Table 3.2.

Table 3.2

Independent Factors for Diachronic Data

1. orthography of the vowel for -ing
2. presence or absence of final <e> following <ing>
3. grammatical function of -ing
4. type of gerund (when relevant)
5. preceding modifier of gerunds
6. syntactic control of gerunds
7. semantic content
8. etymology
9. clause type -ing occurs in
10. geographical region
11. sex
12. genre
13. era

The VARBRUL II program assumes that each parameter, or *factor group*, exerts an independent effect on the dependent variable. In this way the validity of assuming that factors such as gender, etymology, or grammatical category exert independent effects on the variable can be empirically tested. If they do not exert an independent effect, then the statistics provides a way of determining this by showing that the probabilities assigned to one factor are affected by the probabilities of another factor. If particular factors exert no effect, the statistics also provides a way of determining this by comparing the difference in *log likelihood* between two successive analyses. The following discussion reviews the categories associated with each factor group.

3.3 Phonological Factors

In Chapter Two the effects of progressive dissimilation and retrogressive assimilation for (ING) were reported in the work of Shuy, Wolfrarn and Riley (1968) and Cofer (1972). In addition, the findings of Woods (1979) on the third variant [in] indicated

the significance of the height of the preceding vowel as a factor contributing to the perception of the following nasal.

The primary interest in these reported effects for the present study is to examine their value in accounting for the origin of (ING). More specifically, available knowledge of current phonological processes may be brought to bear on questions of historical change, where there is reason to believe similar elements occurred in similar environments. This assumption appeals to the *Uniformitarian Principle* articulated by Weinreich, Labov and Herzog (1968) which states that basic processes observable today are postulated to have been present in the past, unless there are specific reasons for rejecting this.

3.3.1 Preceding and Following Environment

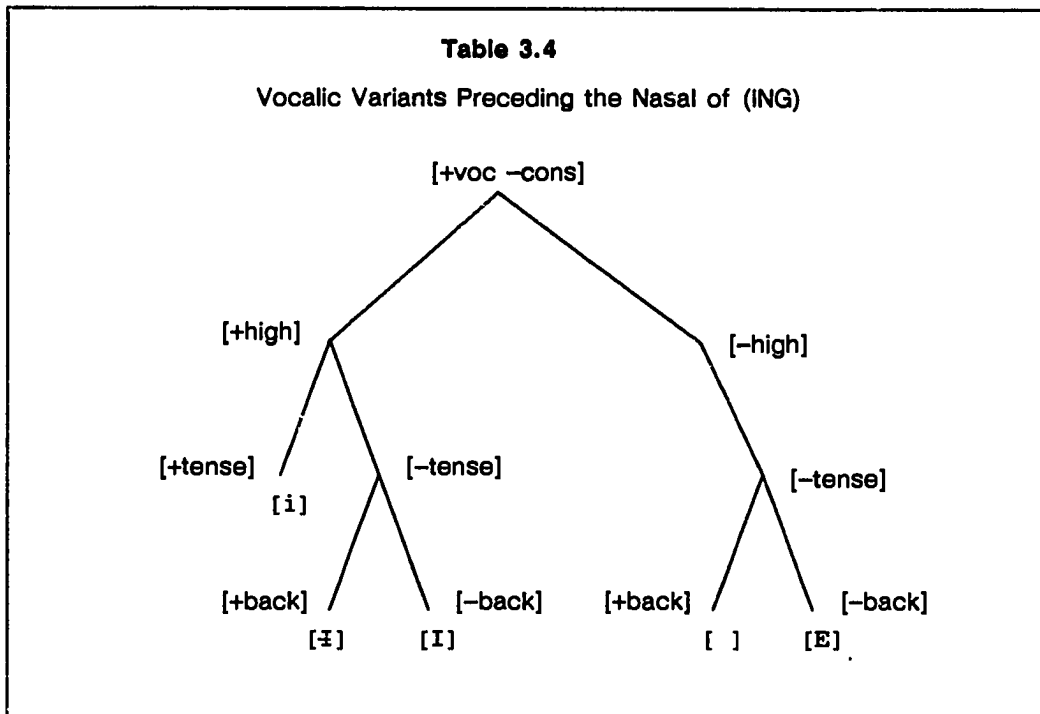
Work conducted on (ING) in William Labov's 1979 seminar on the Philadelphia speech community, e.g. (Abdel-Jawad 1979), reports a difference among the effects of consonants, vowels, liquids, glides and pause. These factors were included in this study also, for preceding and following environment, to provide a basis for comparison with the earlier work. (Pause and vowel were relevant only to the following environment).

Because of the reports of regressive assimilation and progressive dissimilation already mentioned, I divided the consonants into place of articulation. In British speech a glottal stop can vary with an apical flap, as in [b ʔ] and [b l] 'bottle'. Therefore I coded for glottal stop in the preceding environment only. Table 3.3 lists the set of values coded for preceding and following environments. Examples for the feature complexes for preceding and following environment are shown in Table 3.3

Table 3.3			
Phonological Environments for (ING)			
	Preceding	Following	
<i>coming</i>	[+cons +labial]	[+cons +labial]	<i>going mad</i>
<i>eating</i>	[+cons +apical]	[+cons +apical]	<i>being tall</i>
<i>taking</i>	[+cons +velar]	[+cons +velar]	<i>being kicked</i>
<i>hitting</i>	[+cons +glottal]	[+voc -cons]	<i>going in</i>
<i>telling</i>	[+cons +voc]	[+cons +voc]	<i>being lazy</i>
<i>being</i>	[-cons -voc]	[-cons -voc]	<i>seeing why</i>
		Pause	<i>talking</i> __

3.3.2 Vowel Preceding the Nasal Variant of (ING)

With the exception of Woods (1979), the effect of the vowel preceding the nasal variant of (ING) has not been reported in detail. I investigated this dimension primarily because of its potential as a link to the mechanisms of change in the history of the *-ing* suffix. Acoustic and articulatory properties of the vowel preceding the nasal which may affect the realization of the dependent variable are the sorts of properties appropriate to being subsumed by the Uniformitarian Principle, since both appeal to biological perceptual and motor processes which remain stable over time. (1) The vocalic variants included are shown in Table 3.4.



A further distinction was made for those cases where (ING) is syllabic, i.e. contains no vowel. This can be characterized as [+cons -voc +son +cor -cont] which specifies the features of /n/. There are no occurrences of a syllabic velar nasal in this study.

I maintained separately all occurrences of periphrastic *going to* which are pronounced [g n]. This form of the periphrastic future can be seen as the output of a series of reductions postulated by Labov, Cohen, Robbins and Lewis (1968). (2)

3.3.3 Stress

The variable (ING) in this study includes only instances of unstressed *-ing*, (Labov 1972). This would exclude consideration of monosyllabic words ending in *-ing* (*sing, bring*) because these receive primary word stress. The initial observations of one Chelsea speaker pronouncing *thing* as [ɪn] and *wing* as [Uɪn] led me to take monosyllabics into

account. I excluded them in the final analysis however, when it became apparent that these were idiosyncratic of the Chelsea speaker and his brother.

Some question remains, though, as to the role of stress in words such as *anything* and *everything* as well as syllables which contain diphthongs and triphthongs preceding the nasal of (ING). The American southern speakers were the only ones manifesting triphthongs in the vowel preceding the nasal of (ING), but these were confined to the compounds *everything* and *anything* and to words such as *swing* and *thing*..

3.3.4 Syllable Stem Stress Pattern

As a correlate to stress, the number of syllables of the stem in each token of (ING) token was taken into account in the synchronic data. The majority of words in the data containing (ING) consisted of disyllabic forms, with trisyllabics consisting in large part of *anything* and *everything*. Four syllable words followed the stress pattern for two syllable ones.

Number of Syllables in Stem	
2 syllables	<i>coming crying</i>
3 syllables	<i>ironing exacting</i>
4 syllables	<i>representing advertising</i>

3.3.5 Orthography

This dimension is not phonological, and applies only to the diachronic data. There is considerable variation in the spelling of *-ing* until the sixteenth century, (Irwin 1967). (Also see Chapter Six, Section 6.6). The most important justification for including this dimension is that it provides some indirect evidence of phonological variation, and thus the possibility of the existence of the apical form in earlier times, (Wyld 1936). In addition it provides a clue to the origins of (ING) as a socially conditioned variable. It will be shown that the apostrophe in words such as *walkin'* does not appear in the corpus of this study until the nineteenth century.

I distinguished two separate categories for the orthography of the dependent variable. One is the orthographic representation of the vowel in the suffix, and the other is the presence or absence of final <e>. The absence of final <g> was considered to be the same as the apical form; this has been its assumed value by other scholars as well, (Wyld 1936), (Langenhove 1925). In Chapter Six (sections 6.3 and 6.4) I question the validity of this assumption.

<i>y</i>	<i>ynɡ</i>
<i>i</i>	<i>inɡ</i>
<i>e</i>	<i>enɡ</i>

The possible spellings of the suffix include the following which I have arranged according to the presence or absence of final <e>.

Table 3.7

Forms Occurring with or without Final <e>

+final <e>

inge

ynge

enge

-final <e>

ing

ynɡ

eng

in

yn

ig

in'

In addition to the above forms with final <e>, there are a number of examples represented as <ynɡys> which represent either plural or possessive marking. These were kept separate from the other forms. The examples below illustrate some of the spellings shown above which occurred in the diachronic data.

- (3.1) and she was in good hele *att the makyn* of thys letter.
(Paston Letters, Norman Davis ed., 1971–76, p.31) 15th century
- (3.2) tyl I woste *of your a-mendyng*
(Paston Letters, Norman Davis ed., 1971–76, p.218) 15th century
- (3.3) I recommend me unto yow in as *lovyng* *whyse* as hart cone thynke,
(Cely Papers, H. Malden ed., Royal Historical Society, p. 28) 15th century
- (3.4) As fore *the tydyngys* here
(Paston Letters, N. Davies ed., 1971–76, p.354) 15th century
- (3.5) The Duke of Ireland was condemned *for procuringe a patent*
(Verney Papers, J. Bruce ed., Camden Society, p.54) 17th century
- (3.6) Here is a great and curious present *going to the Great Turk*
(Chamberlain Letters, E.M. Thomsan ed., p.42) 16th century
- (3.7) *preyig zow* to weten that I commaundyd...
(Paston Letters, N. Davies ed., 1971–76, p.227) 15th century
- (3.8) I tell you it comes as natural as *drinkin mint julip*.
(The Clockmaker, T.C. Haliburton, 1836 ed., p. 25) 19th century

3.4 Syntactic Factors

3.4.1 Grammatical Category

The suffix *-ing* has a wide distribution in English grammar, (Harris 1982), and the variable (ING) interacts in complex ways with the distributions of various grammatical categories. Chomsky (1970) defines three major lexical categories for English, with a fourth added by Jackendoff (1977). These are determined on the basis of two syntactic features, V (verbal) and N (nominal). This matrix has been adopted in Radford (1981) and is shown in Table 3.8.

		+N -N			
+V	A	V			
-V	N	P			

N = nominal
 V = verbal
 A = adjectival
 P = prepositional

Chomsky (1970)
 Radford (1981)

The suffix *-ing* is represented in all four of the cells of the matrix in Table 3.8, (see Table 3.9). In Chapter Four I will examine this matrix with respect to characterizing the grammatical effect for (ING).

A second possibility for characterizing the grammatical categories is according to Ross's continua, discussed in Chapter Two. (See page 31 for a representation of the two continua proposed in Ross (1972) and (1973)).

Both continua list categories relevant to (ING). Given that Ross's work and the present study were concerned with different sets of data, not every category discussed by Ross is of relevance here. Yet, between the two continua he describes, I hope to show a correlation between many of the points along the continua and the categories used in this study, with respect to applications of G.

Using a discrete feature matrix, the basic grammatical categories of this study could be classified as shown in Table 3.9. Adverbs, which are not explicitly mentioned, might be derived from adjectives, e.g. *loving* → *lovingly*, and accordingly marked [+V +N]. In Chapter Four I will challenge the viability of these divisions for categories with (ING). For the moment I leave unresolved the issue of the place of English gerunds within this framework.

Table 3.9

Classification of Data by Syntactic Features

[+N -V]	[+N -V]
progressives	proper names
quasi-progressives	place names
appositive participles	derived nominals
absolute participles	some/no/every/anything
a + participle	
verb phrase complements	
sentential complements	
reduced relative clauses	
periphrastic future	
[+V +N]	[-V -N]
prenominal modifier	prepositions
post-nominal modifier	
compound modifiers	
predicate adjectives	
adverbs	

The classification of categories by feature matrix is not entirely consistent with the morphological history of *-ing*, although it was possible to code the historical data by the categories shown in Table 3.9. In Chapter Six the historical data are analyzed according to the categories above, but also on the basis of their morphological histories. (See Section 6.3).

The reports of Labov and his collaborators in the 560 Field Methods seminar indicate that the more verbal categories of (ING) favor N, and the more nominal ones favor G. The classification shown in Table 3.9 according to syntactic feature bundles, might predict that adjectives should show less retention of G than prepositions do, since adjectives are marked with a [+V] feature. Such a prediction would state that *fighting* as in

fighting mad should show a lower percentage of G than prepositions such as *according*, *during*.

An alternate account of the grammatical effect is to interpret the variance between N and G, not by discrete feature matrices, but as the result of an incomplete merger. This account would further assume that the original present participle had been N, and that the verbal nouns and derived nominals had been G,

Such a *continuity hypothesis* would differ in at least one respect with the feature matrix. The difference relates to the adjectival categories; the feature matrix classifies gerundive and participial adjectives together on the basis of their syntactic behavior. (But see Section 5.5.4 for a discussion on the syntactic differences between them). The continuity hypothesis would separate them on the basis of their historical origins. Thus the behavior of these adjunct adjectives is one testing site for establishing the reasons behind the observed grammatical effect. If forms such as *swimming pool* (adjunct modifier (+gerundive)) and *swimming team* (adjunct modifier (+participial)) show the same proportion of G, the feature matrix would receive corroboration. On the other hand, if *swimming team* shows a significantly lower proportion of G than *swimming pool*, the continuity hypothesis would receive corroboration.

The following examples illustrate the categories shown in Table 3.9 (excluding gerunds) which occurred in the spoken corpus. A few historical examples are also listed here. The citation for examples from the spoken corpus includes the city, the tape number, initials of the speaker and counter number.

3.4.1.1 Present Participle [+V -N]

(3.9) I'm *workin'* a caterer's on the 20th.

(Battersea Park, London A696, R.R., 889) PROGRESSIVE (4)

- (3.10) We've been to Jersey, *drivin'* all over.
 (Norwich A496, E.N., 413) **APPOSITIVE PARTICIPLE**
- (3.11) and it was a dead end, twenty hefford bulls *comin'*.
 (Gateshead A478, B., 231) **ABSOLUTE PARTICIPLE**
- (3.12) Ships from quebeck *agoing* up the river came two against our quarters
 and...
 (New England, Diary of Jeremiah Greenspan 1776, p.21)
A + PROGRESSIVE
- (3.13) then I started *gettin'* pains behind me ears there.
 (Liverpool A440, K.H., 914) **QUASI-PROGRESSIVE**
- (3.14) I don't mind *watchin'* rugby.
 (Cardiff A420, R.K., 126) **VP COMP [+ EQUI NP]**
- (3.15) And when he saw *me climbin'* out...
 (Edinburgh A467, J.Y.,820) **VP COMP [-EQUI NP]**
- (3.16) you just gotta be so quick *chucking-chucking answers back at them*.
 (Battersea Park, London A696, R.R., 596) **SENTENTIAL COMPLEMENT**
- (3.17) and then ya got the stairs *goin' up to yer upstairs*.
 (Liverpool A445, T.B., 747) **REDUCED RELATIVE CLAUSE**
- (3.18) she *gonna* get her head kicked in she is.
 (Battersea Park A696, R.R., 1139) **PERIPHRASTIC FUTURE**

3.4.1.2 Adjectives/Adverbs [+V +N]

(3.19) *maybe a waitin' list*, I don't know.

(Edinburgh A470, A.G., 934) ADJUNCT MODIFIER (+GERUNDIVE)

(3.20) *the plain workin' man* today in England, he either has roast beef...

(Norwich A495, J.W., 819) ADJUNCT MODIFIER (+PARTICIPIAL)

(3.21) A critstall shelde, as clere as *glass glyterand*,

(tr. Boccaccio's *De Claris* c1450, Visser, vol. 2, p.1973) POST-NOMINAL MODIFIER

(3.22) *was a ship-buildin' blacksmith*

(Glasgow A697, G.J., 939) COMPOUND GERUND MODIFIER

(3.23) the pay package is very *temptin'*.

(Manchester A487, B.C., 393) PREDICATE ADJECTIVE

(3.24) *cause we're foreverlastin'* saying to the blokes

(Battersea Park A696, R.R., 539) ADVERB

3.4.1.3 Derived Nominals [-V +N]

(3.25) We took on a girl each and walked right on back into *Tillingham*.

(Essex A504, M.R., 841) PROPER NAME

(3.26) you can hardly get em to come in the *mornin'*.

(Glasgow A679, D.T., 696) MONOMORPHEMIC

(3.27) no, it's hit the outside of *the nettin'*

(Chelsea, London A033, J.G., 649) DERIVED NOMINAL

(3.28) you're *nothing* but a low down little whore

(Battersea Park A696, R.R., 837) NOMINAL COMPOUND

3.4.1.4 Prepositions [-V -N]

(3.29) and then swing it over *accordin'* to where your horses walked, you see.

(Essex A504, M.R., 561) PREPOSITION

3.4.1.5 Gerunds

The gerunds present a complication for the matrix shown in Table 3.8, because they do not fit neatly into any of the four categories. With respect to their function within a clause, gerunds have the distribution of nouns, occurring as subjects, objects or obliques. On these grounds they might be classified as [+N -V].

Yet the subclass of gerunds known as *verbal gerunds* (Roeper and Wasow 1972) take verbal traits within the gerundive construction. These may include the presence of a direct object following the gerund, as well as the presence of adverbial modifiers, aspect, and passive voice. From this perspective they might be classified as [+V -N].

Example 3.30 illustrates both the nominal distribution of the verbal gerunds, as well as the presence of verbal traits within the construction itself. It is nominal in virtue of being the subject of the sentence, and verbal in virtue of passive voice, the adverb *never*, and aspectual *having*.

(3.30) *Mary's never having been asked to serve on the committee* disappointed her mother.

In Chapter Two (section 2.5) Ross's continuum of gerund constructions was discussed and their place with respect to *nouniness*. Ross's central thesis is to argue for the non-discreteness of the categories falling along this scale. The constructions are

non-discrete by virtue of the fact that the acceptability of a set of syntactic transformations does not either categorically apply or not apply to each point along the scale, but rather that this scale evolves from the fact that the application of such transformations to the complement structures constitutes an implicational scale.

Among gerundive constructions in English, Ross's scale would rank the following four sentences as (a) most verbal and (d) most nominal.

(a) I was amazed by *Mary having recovered her wallet*.

(b) I was amazed by *Mary's recovering her wallet*.

(c) I was amazed by *the recovering of Mary's wallet*.

(d) I was amazed by *the recovery of Mary's wallet*.

I argue in Chapter Seven that this scale has been evolving since the time of late Middle English, at which time the verbal characteristics of gerunds begin to appear, (Callaway 1929), (Jespersen 1956). Of interest is whether the gerunds which are closer to the verbal pole, (i.e verbal gerunds) behave more like participles than they do monomorphemic nouns with respect to applications of G.

This possibility has significance for the continuity hypothesis, because it would support the idea that the variability of (ING) is not a simple relic of two earlier categorical forms. It would suggest that English has somehow realigned the grammatical significance of G and N in the process of developing new grammatical categories in the language, e.g. verbal gerunds. In other words, in modern English the respective weights of G and N are not related directly to the reflexes of the Old English verbal noun and participle, but rather to some newer, not wholly equivalent, contrast between verbal and nominal.

The examples below illustrate the differences between nominal and verbal gerunds with respect to the elements each can co-occur with.

3.4.1.5.1 Verbal Gerunds

(3.31) next thing I know I got run in by coppers *for carryin' offensive weapons*.

(Leeds A483, F.H., 377) OBLIQUE

(3.32) that's what you call a—*hangin' shifts*.

(Gateshead A478, M.K., 570) OBJECT

(3.33) *havin' a fall*, that caused it.

(Manchester A488, O.M., 915) SUBJECT

3.4.1.5.2 Nominal Gerunds

(3.34) I said "now Henry *that crawlin's* the only thing I know to do"

(Atlanta A315, M.G., 142) SUBJECT

(3.35) and I gave him *a thumpin'*

(Edinburgh A467, J.Y., 627) OBJECT

(3.36) I do go for *the dancin'*

(Edinburgh A470, A.G., 113) OBLIQUE

(Note: (3.34) – (3.36) are nominal gerunds in virtue of the preceding determiner types, e.g. demonstrative, indefinite and definite articles).

3.4.1.6 Gerund Complements to Noun Phrases

Besides the constructions above, there are examples of gerunds which occur as complements to nouns. These are not discussed by Ross, (1973a). Interestingly these constructions exhibit parallel behavior with respect to the nominal-verbal squish. Some of these complements behave like nouns. Others take most of the verbal traits characteristic

of the verbal gerunds illustrated above in (3.30). Examples (3.37 – 3.40) illustrate four of these patterns found in the data. These examples show a number of types of head noun to which the *-ing* form is a complement.

Gerunds as Complements to Head Nouns

(3.37) It's a typical British *way of doin'* it really.

(Cardiff A420, R.K., 569) **MANNER**

(3.38) (there was) *none of this, usin' the head or boots*

(Edinburgh A473, B.S., 605) **QUANTITY**

(3.39) they want to know...*the kind of bringin' up* we had.

(Gateshead A478, M.K., 855) **KIND**

(3.40) but she doesn't like *the idea of bein' put under ground* either.

(Bethnal Green, London A504, B., 250) **MENTAL**

Table 3.10 below summarizes the applicability of various syntactic rules to these types of constructions according to the semantics of the head noun. Six semantic types of head noun are distinguished in Table 3.10.

	Mental	Emotional	Modal	Manner	Quantity	Type
WH Movement	yes	yes	yes	(yes)	yes	no
Unbounded Mm.	yes	yes	yes	no	yes	no
Pro-form DO	yes	yes	yes	yes	no	no
Aspect	yes	yes	yes	yes	no	no
Acc-ing	yes	yes	yes	(no)	no	no
Reverse Relation	no	no	no	no	no	yes

With respect to *Wh-movement*, differences among the four examples above are shown in (3.41 – 3.42), based on (3.37 – 3.40).

- (3.41) *What is it a British *way of t*?
- (3.42) What was there *none of t*?
- (3.43) *What was that the *kind of t* we had?
- (3.44) What doesn't she like *the idea of t*?

The ability to undergo unbounded movement is exhibited for (3.42) and (3.44) above in the following two examples.

- (3.45) What did Tom think Mary said there was *none of t*?
- (3.46) What did Tom say John knows that she doesn't like *the idea of t*?

Although these examples may be somewhat awkward, their acceptability is clearly greater than for the following two examples, based on (3.41) and (3.43) above.

- (3.47) *What did Bill think Sam said it was a *British way of t*?
 (3.48) *What did Tom say Mary wanted to know *the kind of t we had*?

The difference in acceptability of Pro-form DO can also be shown for the examples above.

- (3.49) What is it a *British way of doing*?
 (3.50) *What was there *none of doing*?
 (3.51) *What do they want to know *the kind of doing we had*?
 (3.52) What doesn't she like *the idea of doing*? (5)

Note that in this case, (3.50) is unacceptable, i.e. this type of complement construction can undergo *Wh-movement*, but must obligatorily block pro-form DO. In contrast, (3.49) is more acceptable with Pro-form Do than its counterpart in (3.40) which has only undergone *Wh-movement*. The other two examples appear to optionally take pro-form *Do* or not.

With respect to aspectual marking, there are also observed differences among these examples.

- (3.53) It was a typical *British way of having done* it.
 (3.54) *There was *none of that having used* the boot or head.
 (3.55) *They wanted to know *the kind of having been brought up we had*.
 (3.56) She didn't like *the idea of having been put* in the ground.

The ability of the complement types to occur with non-possessive nouns and pronouns (Acc-ing) is illustrated in the following examples.

- (3.57) ?It's a British *way of them doing it*.
- (3.58) *There was *none of them using* the boot or head. (6)
- (3.59) *They want to know *the kind of them* bringing us up we had.
- (3.60) She didn't like *the idea of him* being put in the ground.

Finally, there is a difference among these examples which I will call the *Reverse Relation*. In this construction either the original noun head, or the gerund complement to that noun may occur in first position. One example of this without a gerundive complement is the following pair of phrases:

a different kind of a horse > a horse of a different kind

This relation is fairly restricted, the four complement examples discussed above are all unacceptable in this construction.

a British way of doing it > *doing it of a British way
 none of this using the head > *this using the head of none
 the kind of bringing up > *bringing up of the kind
 the idea of being put in the ground > *being put in the ground of the idea

Yet the only complement type I have found which can ever occur in the reverse relation are the complements to nouns which express *type* or *kind*.

a different kind of gathering

a gathering of a different kind

From this set of observations, it has been seen how some gerund complements to nouns behave sententially, and others behave like noun phrases. This was illustrated in their differences in acceptability in undergoing movement rules, accepting Pro-form DO, and their ability to take aspect. Although the line between the types is not absolute, there appears to be essentially a demarcation between nominal and verbal gerund complement types, with a *squishy* (Ross 1972) region occurring for nouns expressing *manner* and *quantity*. (7)

3.4.1.7 Acc-ing

This construction refers to gerund constructions in English which take a pronominal modifier in a case other than the genitive. The examples below, taken from the synchronic data, illustrate this construction as found in the data.

(3.61) cause it's either *you gettin' battered or him gettin' battered*

(Liverpool A447, E.M., 511)

(3.62) People condemn it, *a girl fallin' pregnant*

(Southall, London A026, B.F., 391)

(3.63) instead of *she whippin' ya she boxes (boxes) ya.*

(Ozona, Texas A173, S., 410)

(3.64) I'm talkin' *about you turnin' aroun'*

(Atlanta, Georgia A318, H.G. 223)

Although Kellner (1892) states that these constructions are older than gerunds which are preceded by nouns and pronouns with possessive marking, he does not cite a single instance from either Old or Middle English. In contrast, most other scholars writing on the topic state that this construction occurs later than the possessed type, (Weber 1900), (Jespersen 1956), (Visser 1973). The historical data collected for this study are consistent with the latter position, indicating a marked increase of such constructions in later modern English. (See Chapter Five, Section 5.5.6).

Acc-ing constructions share more in common with verbal gerunds than with nominal gerunds, because they may co-occur with direct objects as well as with aspect, passive voice, and adverbial modification. Although I will continue to use the name *Acc-ing*, following the convention in the generative literature, there are examples of this construction which occur in the nominative case as well, e.g., (3.62) above.

From the preceding set of observations the gerunds might be separated according to the nominal and verbal syntactic feature bundles shown in Table 3.11.

Table 3.11	
Syntactic Features of Gerund Types	
[+V -N]	[+N -V]
acc-ing	nominal gerunds
verbal gerunds	noun complements
noun complements	[quantity]
[mental]	[type]
[emotional]	
[probability]	
[manner]	

The real issue is whether such a discrete feature matrix can adequately describe English gerund constructions. The findings reported by Ross on the existence of a class of squishes related to the nominal-verbal continuum of English have established the need for accounting for such phenomena within a grammar of English, if the criterion of *descriptive adequacy* (Chomsky 1980) is to be met.

3.4.2 Modifier Type for Gerund

Ross defines a continuum for modifiers; nominal elements are more restrictive than verbal elements according to the type of modifier they can take. The only *-ing* constructions relevant to this dimension are verbal and nominal gerunds. Following Ross I distinguished the following set of modifiers:

<i>Tom's dancing</i>	noun
<i>his dancing</i>	pronoun
<i>the dancing</i>	definite article
<i>a coming together</i>	indefinite article
<i>any singing</i>	quantifier
<i>more dancing</i>	degree
<i>off-key singing</i>	adjective
<i>dancing</i>	absence of modifier

3.4.3 Syntactic Control

This dimension refers to the source of the understood subject of a gerund as well as to the understood subject of certain participial constructions including *whiz deletion*, appositives, verbal complements with and without Equi Np deletion. Syntacticians in recent years (Roepfer and Wasow 1972, Thompson 1973, and (Reuland 1983), have established the importance of addressing the issue of control in determining whether gerunds are nominal or verbal. (Also see Schachter 1976).

This dimension applies to both the synchronic and diachronic data. Of interest is whether similar patterns of control were present during Middle English and early modern English when the gerunds still lacked many of their present-day verbal traits,. Also, in some cases it is difficult to decide on surface structural evidence whether an example is a gerund or is a verbal complement with equi NP deletion. Control patterns might provide an independent diagnostic for disambiguating these. This issue will require further discussion in Chapters Four and Seven.

SUBJECT CONTROL – overt subject controls understood subject

(3.65) *Parents don't like shortenin' your names, usually.*

(Cardiff, A421, R.K., 051)

OBJECT CONTROL – overt object controls understood subject

(3.66) I never seen *it comin'*.

(Edinburgh, A473, B.S., 693)

NONSPECIFIC – not a controlled subject

(3.67) I think it's best to be natural instead of, uh, you know, *tryin'* to speak posh.

(Hackney, London, A022, M.C., 485)

INFERRABLE – inferrable discourse element which is not present in the same sentence as the gerundive controls understood subject, the discourse element itself may be a subject or object.

(3.68) and of course *bein'* poor families, there wasn't many cycles available at that time of the day. dancing

(Essex, A504, M.R., 641)

3.4.4 Oblique Objects and Complements to Gerunds

In the examples of gerunds which co-occur with following oblique objects and prepositional phrases, there are several distinguishable types. The importance of including this dimension, which is relevant only to a subset of nominal gerunds, is to compare the occurrences of oblique objects to direct objects, as well as to prepositional phrases which form complements to gerunds. This is to determine whether N and G can be ordered with respect to the nominal/verbal continuum of gerunds, since complement type is one characteristic which distinguishes nominal gerunds from verbal ones.

This dimension is directly related to the historical development of verbal gerunds from the original Old English verbal nouns. In part, this development is manifested by the

replacement of forms such as *the writing of the letter* with *the writing (of) the letter*, and finally *(the) writing the letter*. (See Chapter Seven, Section 7.5.2.2). Although nominal gerunds occur in modern English, alternate forms to the present day nominal gerund are nominalizations such as *the destruction of the city*, as opposed to *the destroying of the city*.

Other prepositions besides *of* also occur with either gerunds or nominalizations. The following examples illustrate the relevant patterns.

Locatives – his prompt arrival in Paris

his prompt arrival in Paris
?his prompt arriving in Paris
his promptly arriving in Paris

Temporals – his prompt departure at six o'clock

his prompt departure at six o'clock
?his prompt departing at six o'clock
his promptly departing at six o'clock

Oblique Objects – the total destruction of the city

the total destruction of the city
?the total destroying of the city
*the totally destroying of the city

Topic – their constant discussion about politics

their constant discussion about politics
*their constant discussing about politics
*their constantly discussing about politics

3.5 Abstract/Concrete Properties

The grammatical effect discussed above pertains to structural differences. I defined semantic categories independent of the syntactic categories in order to see whether there exist correlations between these two levels of the grammar with respect to (ING).

3.5.1 Tangible Objects

This value was assigned to (ING) tokens if the word referred to an observable object

ceiling

building

riding school

3.5.2 Perceptible Simple Action

This refers to observable activities which are often iterative or involve a fairly circumscribed activity. For example, consider the use of the verb *beat*. In the activity of beating a cake, the action referred to involves a limited range of motions, a hand moving a spoon around and around in a bowl of batter. In contrast, the same verb *beat* when referring to *beat the enemy* may still involve a number of actions which are perceptible, yet the range of motions and activities is much broader. Examples of this sort of more involved observable activities were listed separately.

running around (the house) – a simple action

running around (dating lots of people – not a simple action)

3.5.3 Perceptible Complex Actions

This refers to the example mentioned just above. One interesting question worth pursuing further is how broad a range of usage do individual verbs command, and can different ranges be determined for different classes (either semantically or syntactically defined) of them?

looking (for a job) – complex

looking (for a dime in purse) – simple

sneezing – always a simple action

3.5.4 Mental States and Events

These refer to internal and intentional events of all kinds. Because it is hard to distinguish the boundaries of a mental event, I did not distinguish generic and non-generic mental events.

intending

trying (*non-physical sense*)

pretending

dreaming

thinking

3.5.5 Abstract Relations/Qualities

One of the most important functions of language is its ability to describe abstractions, apart from the spatio-temporal here-and-now, and apart from the merely observable. *John is standing to the right of Tom* expresses an abstract relational link between the two observables, *John and Tom*. Depending on the position of the observer, the relation *right of* refers to different states of affairs. *Red* on the other hand, is classified as a concrete property, which does not depend on the observer's position in the same

way. Similarly examples such as *conflicting reports* and *boiling water* illustrate a difference between abstract and concrete properties.

3.5.6 Time Words

Words expressing time units such as *morning*, *during* were kept in a separate group. Because relations of time units are abstract, there might be some reason to include them in the category above.

3.5.7 Verbs of Communication

Verbs such as *saying* and even *writing* in certain contexts were kept apart. They involve intentional action, but were not grouped with mental events, because they involve the external world and other intentional subjects as well. Verbs such as *screaming* could be classed as examples of communication as in *I screamed at him*, or as examples of simple actions *she screamed as her dress caught fire*, since here we have entered the realm of largely instinctual behavior. (8) (It should be noted that not everyone would agree in the possibility of such instinctual behavior, e.g. see Goffman's 'Response Cries' 1978)

3.6 Social and Geographical Factors

3.6.1 Etymology

Although not usually considered to be a social dimension, the fact that a certain borrowed word has entered the language does imply that at some time there was a social interaction between speakers/readers/writers of two languages. It implies contact between different linguistic groups. Of interest in relation to this dimension is the question of

whether (ING) is related to borrowing patterns, i.e. are apical forms heavily favored by French-based words, are velars favored by words of Latin origin?

French borrowings might be expected to favor the apical variant because of French *-ant*, e.g. the prepositions in English which end in *-ing* are borrowings from French, *durant* > *during*. Latin borrowings might be expected to favor the velar variant on the basis of the social evaluation of Latin-based words, i.e. Latin words are felt to be more formal than Anglo-Saxon words. Fischer's study (1958) showed some lexical items to favor G more than others. The basis for the distinction seemed to be the learnedness associated with a particular lexical item.

Table 3.12 lists the range of etymological origins found in the data.

Old English	Icelandic
Middle English	Old Norse
Modern English	Other Scandinavian
Old French	Frisian
Modern French	Old High German
Latin	Dutch
Greek	

There are a very small number of examples whose origin is not known, and these were kept separate, e.g. *cutting*, *picking*, *petting*. Many of these languages represent a very small percentage of the data, e.g. Frisian, Old High German and Greek. The majority of forms are of English origin, with French second, and Scandinavian third. (The last includes Norwegian and Icelandic).

3.6.2 Geographical Area

This dimension is of considerable interest, since it provides one of the most useful measures of the continuity of phonological and morphological processes across time. For this reason, a number of British dialects were selected, representing diverse geographical points.

3.6.2.1 Synchronic Data

Moore, Meech and Whitehall (1935) established the following boundaries for the replacement of the present participle suffix *Inde* with *Ing* about 1450. (See Chapter Four, Table 4.5 for a complete citing of the evidence for this boundary (Moore, Meech and Whitehall 1936)) Map 3.1 shows the location of the speech communities in modern England used in this dissertation.

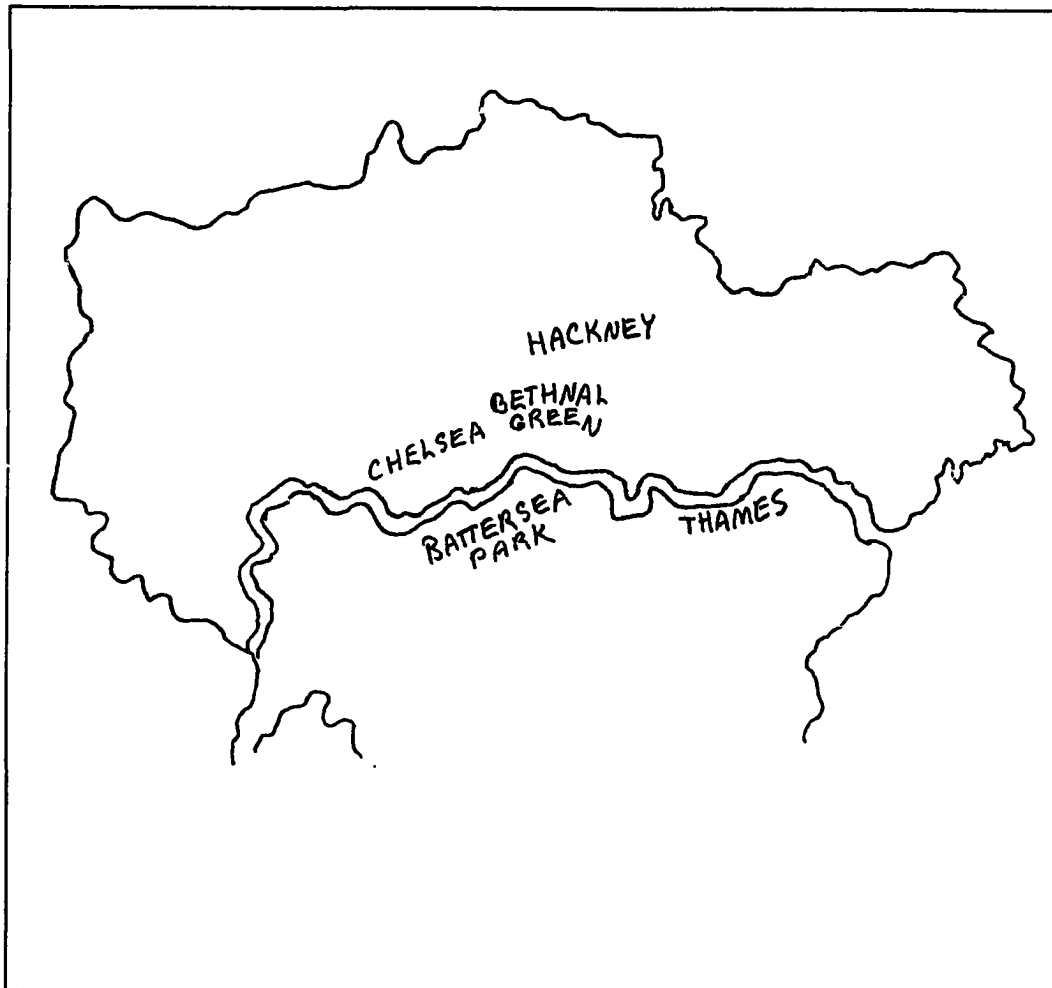
Map 3.1
Location of Urban Centers Represented in the Synchronic Data



Map 3.2 shows the areas in London from which the London speech samples were taken.

Map 3.2

Location of Regions within London Represented in Synchronic Data



The British data represent speech communities geographically and socially closer to the origins of the historical changes related to *-ing*. Yet I included a smaller sample of American southern speech, taken from rural West Texas and urban Atlanta, Georgia. The reason for including the American sample is primarily to serve as a point of comparison to

the British data, Studies report that southern American speech approaches invariant N, (Anshen 1969), (Feagin 1979). Of particular interest is the comparison of the grammatical effect for southern American speech, as compared to British, as well as a comparison of social effects for both regions.

3.6.2.2 Diachronic Data

The availability of written historical documents which approach vernacular speech is much harder to compile than synchronic spoken samples. Because of this, not all regions represented for the synchronic data are represented in the historical data. Geographically, the historical materials are taken from writers from London, with a smaller sampling from Norfolk, Essex and Suffolk. A sample of New England writing is taken from the eighteenth and nineteenth centuries.

The historical documents are letters and diaries, under the assumption that these genres reflect the spoken language more accurately than legal writing. The sample from New England includes fictional dialogue as well. Table 3.13 lists the major historical sources. (Chapter Eight includes other materials in the discussion of the distribution of the apostrophe with (ING) in the nineteenth century, i.e. *in'*).

Table 3.13

Sources of Diachronic Data

Cely Papers	(15th c.)
Paston Letters	(15th c.)
Writings of John Chamberlain	(16th c.)
St. German's Doctor and Student	(16th c.)
Verney Papers	(17th c.)
Diary of Ralph Josselin	(17th c.)
Essex Papers	(late 17th c.)
Diary of Jeremiah Greenman	(18th c.)
Diary of Alfred Jackson	(19th c.)
Diary of Mrs. King	(19th c.)

In addition to these data, I have also incorporated data from a study on *-ing* which examines its developments from the eighth century to the end of the fifteenth century, (Irwin 1967). These data are discussed in detail in Chapter Six (Section 6.5) The sample represents prose material from the following dialects of Old and Middle English. A total of 1801 tokens are included from this study, which represents the data Irwin tabulated in approximately 800 pages of textual materials.

Table 3.14

**Dialects Represented in Irwin's Sample
(from Irwin 1967)**

Old English	Middle English
Mercian	East Midlands
Mercian-Kent	West Midlands
West Saxon	Northeast Midlands
Surrey	Northern
	Southwestern

The data taken from Irwin's study are analyzed separately from the data collected for the present study, because I was not able to recode her data to be commensurate with my own in all dimensions. In those cases where the two data sets are included in a single analysis (table, graph) the source of data is clearly marked.

3.6.3 Social Class

Correlates between the distribution of linguistic variables and social class have been well established, (Labov 1966, 1972), (Sankoff 1980), (Trudgill 1974) and (Milroy 1980). I have categorized the modern British speakers according to the social classes described by Trudgill (1974) and the American southern speakers by the criteria of social class set forth in Labov (1966). For the diachronic data, I divided the data according to the occupation or rank of the writer.

Table 3.15	
Social Strata	
synchronic	diachronic
working class	nobility
urban	clergy
rural	merchants
	farmers

The lowest ranking divisions shown for the diachronic data have retained a continuity with the classes defined for the synchronic data. Farmers correspond to the working class, and merchants to the middle class.

3.6.4 Genre

Linguistic genre has been shown to contribute towards variation in language, (Coates 1983). The synchronic corpus is limited to one genre, the data drawn from tape-recorded interviews. Since there is very little variation of (ING) represented in the diachronic data, a different rationale for including this dimension was to study the distributions of gerundives in the genres, as well as participial constructions.

Table 3.16	
Genres	
synchronic	diachronic
speech	personal letters
	business letters
	wills
	diaries
	humorous fiction

3.6.5 Age

The distribution of linguistic variables has been shown to exhibit differences according to age grouping of speakers, (Labov 1965, 1966) (Cedergren 1973). It is the crucial dimension for determining change in progress, although (ING) has been established as among the most stable of sociolinguistic variables. No current studies report change in progress for (ING).

It is more difficult to establish the exact age of writers in the earliest historical data, in most cases the ages could be approximated from contextual information to within ten years of the actual age. I divided the dimension of age into four categories for the synchronic data, and three for the historical data. The historical data were grouped differently only because of the necessity of age approximation in some cases.

Table 3.17	
Age Groups	
Synchronic	Diachronic
young – 10–17	under 30
young adults – 18–34	30 – 50
middle-aged adults – 35–55	over 50
older adults – 56+	

3.6.6 Sex

This dimension has been established as a significant factor in many current sociolinguistic studies, (Labov 1966), (Cofer 1972), (Trudgill 1972). I will refrain from making any generalizations about the effects of sex in the diachronic data, due to the fact that the majority of the data are taken from male writers.

3.6.7 Era

All of the synchronic data represent British and American speech samples collected in the early 1970s. The historical data are divided by century, representing the fifteenth through the nineteenth centuries.

This completes the review of the dimensions of analysis addressed in this study. The following summary compares the shared dimensions for the synchronic and historical data, and contrasts their differences.

Table 3.18**Summary of Dimensions**

	synchronic	diachronic
preceding phonological environment	yes	no
following phonological environment	yes	no
vowel nucleus	yes	no
stress	yes	no
number of stem syllables	yes	no
orthography	no	yes
grammatical category	yes	yes
type of gerund	yes	yes
complements to gerund	yes	yes
modifiers to gerund	yes	yes
syntactic control of gerunds	yes	yes
semantics of (ING) category	yes	yes
etymology	yes	yes
geographical region	yes	yes
genre	no	yes
social class	yes	yes
age	yes	yes
sex	yes	yes
era	yes	yes

Footnotes

1. Evidence that perceptual properties of linguistic elements are influenced by processes not specific to particular languages is found in studies such as Wright (1979) who shows that in every case examined, the inventory of nasal vowels in a language is always smaller than the inventory of non-nasal vowels, e.g. Dakota (Yankton-Teton), Portuguese (Romance), Beembe (Congo) and Ebie (Niger-Congo). (Wright 1979, p. 129) Wright's conclusion is that the difficulty in maintaining large inventories of nasal vowels is due to the difficulty in perceiving contrasts between nasalized vowels which are close in phonetic space, more difficult than it is for the non-nasalized counterparts. The relevance of this to the present discussion is that Wright's findings illustrate an instance of appealing to a universal perceptual principle independent of a particular language's phonological system.

2. The reduction is as follows:

goin t	vowel reduction
goint	simplification of triphthongs
goint	assimilation of nasal to apical
goin	assimilation of apical stop to nasal
g n	monophthongization

3. Modifiers of gerundive origins are distinguished from participial modifiers in terms of how they are paraphrased, and their stress patterns. For example, 'spinning wheel' with a gerundive modifier means a wheel designed for the purpose of spinning and is paraphrased as 'wheel for spinning'. In contrast, a participial modifier means a wheel in the act of rapid rotation, and is paraphrased as 'wheel that is spinning'. Similarly for the gerundive case, primary stress falls on 'spin', whereas for the participial case, primary stress falls on 'wheel'.

4. I have used the convention of placing an apostrophe after the <n> in transcribing the spoken data to indicate the N variant. When greater phonetic detail is required this is specified accordingly. Each example taken from the spoken corpus is referenced according to its location and tape number.

5. In this case the sentence is certainly acceptable, although it does not correspond in meaning to the original. Pro-form DO substitutes for active verbs, whereas the meaning in the example is passive. However, this is a separate issue and does not disprove the fact

that complements to nouns of cognition may occur with pro-form DO, in the case of WH-movement having applied.

6. There is a reading of this sentence which is acceptable, but it is a reduced relative clause, 'there was none of them (who were) using the boot or head', and no longer the construction under discussion.

7. I thank Anthony Kroch for having initially suggested to me that I look at these complement types along the nominal-verbal demarcation, and look for syntactic tests to distinguish them.

8. Words such as 'anything' and 'nothing' were excluded from this dimension. These items do cover a wide range of applications, referring to both concrete objects as well as very complex sets of events. Yet because they are both high frequency items in the modern language and are also subject to other strong conditioning factors with respect to (ING) I excluded them.

4.0 Historical Continuity in Synchronic Variation

4.1 Introduction

In this chapter I will report the findings of an analysis of (ING) representing the speech of both British and American working class speakers. A total of 3309 examples of this variable were collected from 68 speakers (60 British and 8 southern American). My focus will be the patterns of British (ING), and I will refer to the American sample primarily as a point of comparison.

4.2 The Interview Setting

The corpus represents predominantly urban, and entirely working class speech. The data are taken from tape recorded interviews conducted by William Labov during the early 1970s. (Any names of speakers appearing in this study are pseudonyms to protect individuals' privacy). These data represent a range of speakers and include several styles and diverse topics of conversation. Most of the interviews took place in the homes of the speakers. In several of the tapes the interviewer was in a public park, or at the place where the speaker worked. In some instances the interviewer's wife was also present, and contributed to the dialogue. One interview with the wife of an American railroad man is conducted entirely by the interviewer's wife, Teresa Labov.

The interviews are consistent in format; initially speakers are asked their names and where they grew up. The topic then shifts to questions about fair fights and games the speakers played growing up as children. The interest in these topics varies across speakers to some extent, as well as their willingness to discuss them. In general, a topic was pursued until a natural break occurred, or unless the speaker switched topic in the course of discussing the current one. Topics which occurred consistently across all interviews, besides those already mentioned include: marriage and dating, raising children, jobs, the neighborhood, experiences in school, fate and the supernatural, and (when relevant) dangerous or life-threatening experiences. The aim of each interview was to obtain a

sample of speech monitored as little as possible by the speaker, under the particular circumstances of the interview.

4.3 Profile of the British Speakers

The speakers in the British sample represent 41 males and 19 females. Table 4.1 below shows the breakdown of the data according to sex and age of speaker. (N = 2457 for British)

Table 4.1
Distribution of British (ING) according to Age and Sex

	10-17	18-34	35-55	56+	total
Men	523	458	120	520	1621
Women	444	98	123	171	836
					2457

The data in Table 4.1 represent the speech of different speakers as listed in Table 4.2 below.

Table 4.2

Distribution of British (ING) according to
Number of Speakers per Age Group

	10-17	18-34	35-55	56+	Total
Men	17	7	4	13	41
Women	10	1	3	5	19
					60

The youngest males form the largest group; yet five members of this group represent very low numbers, (less than 10 tokens each). If these youngest males are eliminated, there are 12 males in the youngest age group, (total number of males = 36, N for males = 1592). If the tokens are divided by number of speakers, the following are the average number of tokens per speaker for the men and women respectively.

Men: $1592/36 = 44.22$
Women: $836/19 = 44.00$

Although these numbers are low, it is usual to get about 50 tokens of (ING) per tape, excluding the compounds *anything, everything, something, nothing*. Occasionally speakers used these compounds over 100 times per 45 minute tape. The British synchronic corpus contains 31 tapes with 45 minutes of speech per tape, or 23.25 hours of speech total. (The American sample is eight 45 minute tapes). If the speakers who represent a low proportion of the sample are excluded, (5 males and 1 female) the sample contains 54 main speakers with .47 hours of speech for each one.

A number of the speakers have interviews lasting longer than the duration of a single tape, and are thus represented by an hour or more of speech. In other cases the interview was a group situation with several speakers participating equally. This is especially true for the youngest speakers, who often vie for the attention of the interviewer after a few initial minutes of shyness.

Most of the speech in this sample represents urban British dialects. Table 4.3 below shows the distribution of the data according to sex and urban or rural setting.

Table 4.3

**Distribution of British (ING) according to
Sex and Urban/Rural Setting**

	<u>Urban</u>	<u>Rural</u>	
Men	1527	94	N = 2457
Women	809	27	
Total	2336	121	

In addition, the rural data represent only the speech of speakers in the oldest age category, all of them over 70 years of age. It will be important to bear this in mind when looking at the data for any skewing effects these distributions may cause.

The geographical regions represented in this study are shown in Table 4.4. below, which gives the sample size for each city or region. To the right are the number of speakers representing that speech community.

Table 4.4

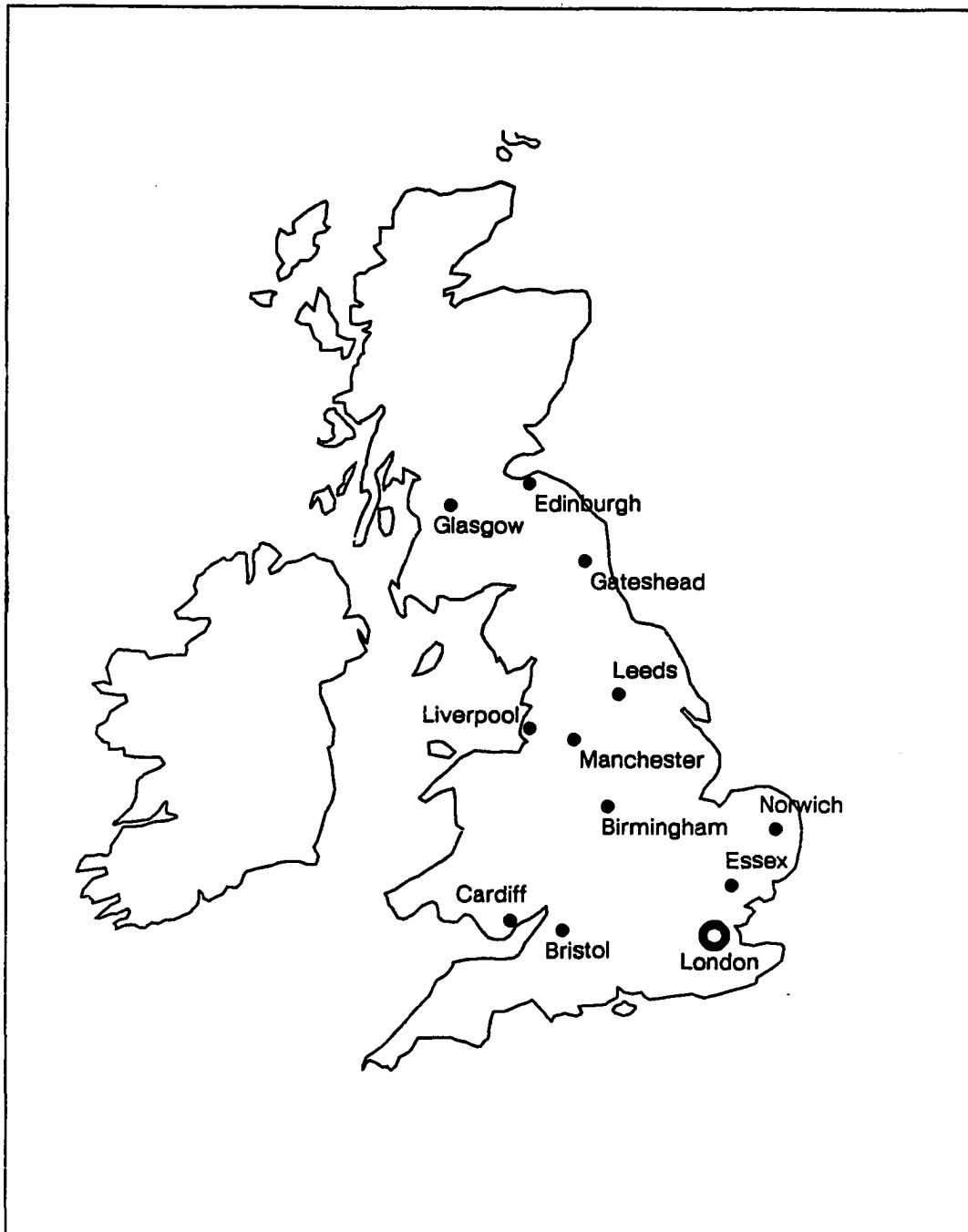
Distribution of British (ING) Data according to Geographical Region
and Number of Speakers for each Region

	<u>N</u>	<u>Number of Speakers</u>
Bristol	157	3
Cardiff	157	4
Southall (London)	203	1
Chelsea (London)	186	2
Hackney (London)	115	2
Battersea Park (London)	189	2
Bethnal Green (London)	89	6
Birmingham	54	1
Manchester	121	7 (5)
Liverpool	288	5
Leeds	71	3
Gateshead	211	8 (5)
Glasgow	191	5
Edinburgh	191	6
Norwich	117	3
Essex	107	2
	<u>2457</u>	<u>60 (55)</u>

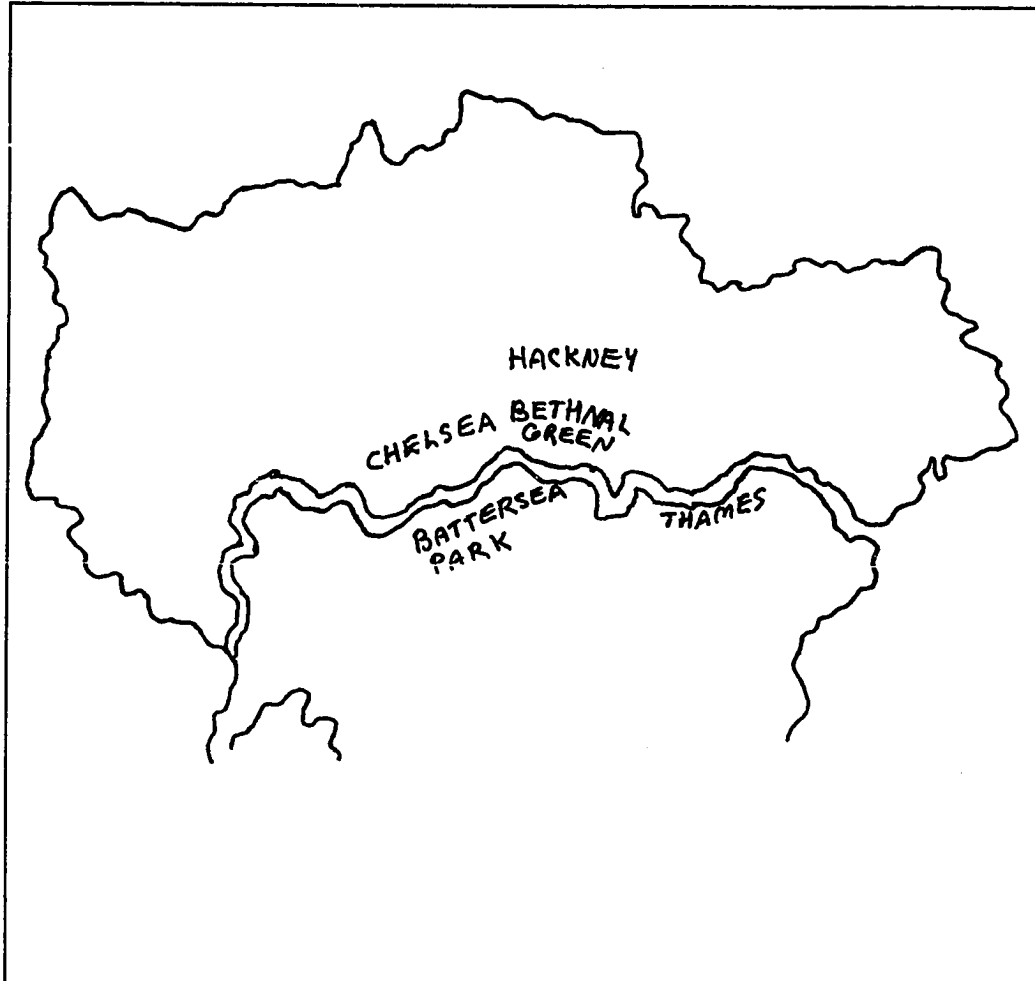
Every region except Birmingham and Southall is represented by more than one speaker. Again it is necessary to keep possible skewing effects in mind in the event that Southall or Birmingham samples are idiosyncratic, rather than representative. In Chapter Three the locations of the cities (and region in the case of Essex) in England and Scotland were shown on maps. These are repeated here for convenience; Map 4.1 gives the overview; Map 4.2 shows the London area in greater detail.

Map 4.1

Locations of Cities Representing British Synchronic Corpus for (ING)



Map 4.2
Location of Regions within Greater London Area



4.4 Regional Patterns

In Chapter Two a number of recent studies on (ING) were reviewed and it was seen that there is a striking consistency among these studies of English speech communities around the world with respect to the social significance of this variable, Shuy, Wolfram and Riley (1968), Trudgill (1972), Wald and Shopen (1981).

It has been shown elsewhere, Labov (1966), Trudgill (1974), Anshen (1969) that this variable is sensitive to sex, style, and socio-economic class. Yet to date there have not been studies of this variable contrasting patterns between geographically adjacent regions. (1)

As stated earlier, (Chapter Two), the present participle in English replaced its original inflectional suffix *-ind* with the modern form *-ing*. (2) By the mid fifteenth century this change had spread through the regions shown below in Map 4.3. This evidence is based on the Middle English dialect study by Moore, Meech and Whitehall (1935). (See Moore, Meech and Whitehall (1935) for a complete listing of the historical materials providing the basis for this isogloss). Table 4.3 below displays the 26 points by which Moore, Meech and Whitehall drew their isogloss.

Map 4.3

Spread of the <ing> Spelling for the English Present Participle c.1450
(based on Moore, Meech and Whitehall 1935)

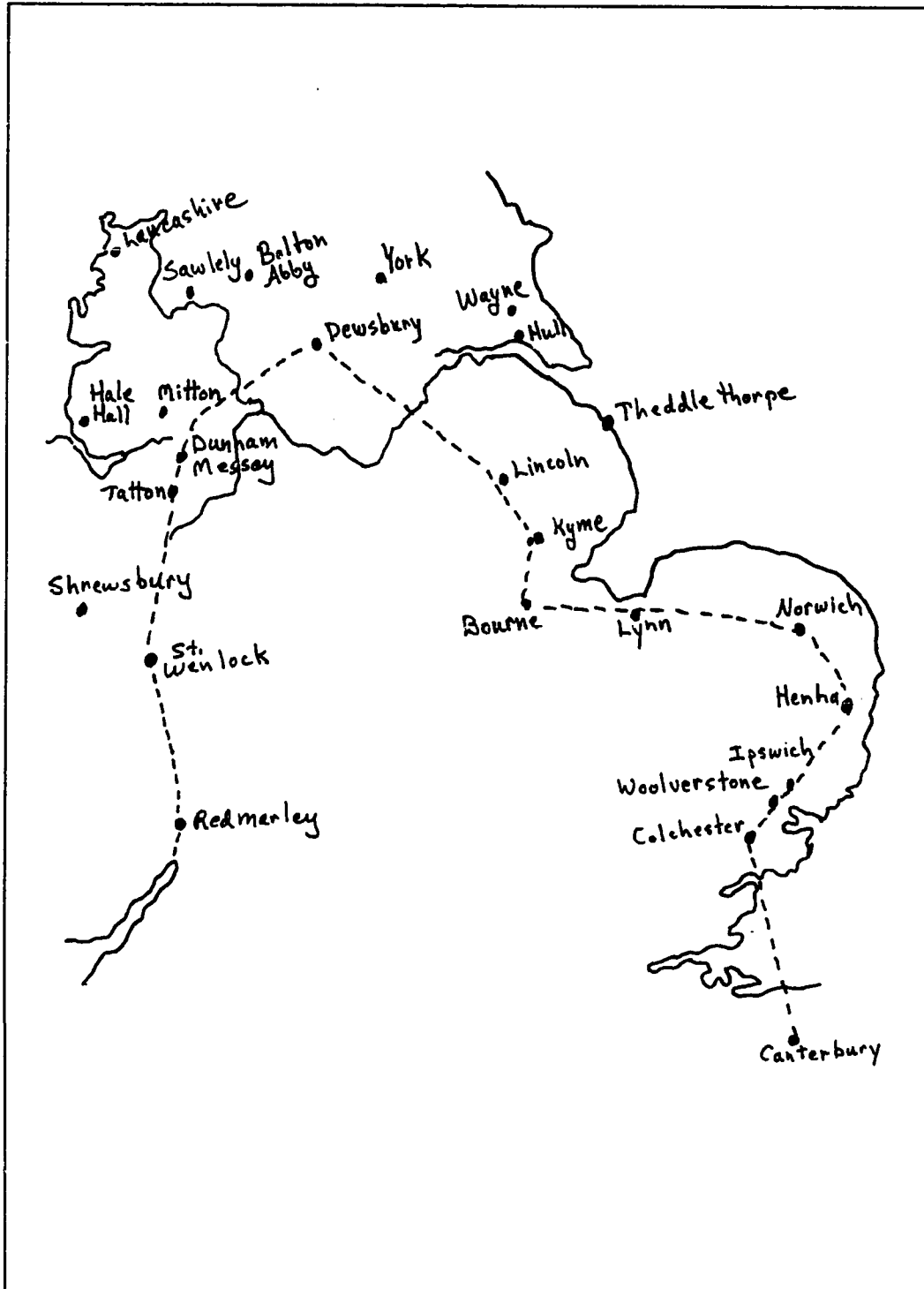


Table 4.5

Summary of Boundary Points for Isogloss between
<ing> and <and> c.1450

(Moore, Meech and Whitehall 1935)

County	Town	Location	Evidence
KENT	Canterbury	at line	strong
ESSEX	Colchester	at line	weak
SUFFOLK	Woolverstone	east	good
	Ipswich	at line	strong
	Henham	at line	weak
NORFOLK	Norwich	at line	strong
	Lynn	at line	strong
LINCOLNSHIRE	Bourne	at line	strong
	Kyme	at line	fair
	Lincoln	at line	strong
	Theddlethorpe	northeast	strong
YORKSHIRE	Dewsbury	at line	good
	Hull	north	good
	Hawne	north	good
	York	north	strong
	Sawlely	northwest	strong
	Bolton Abbey	north	strong
CHESHIRE	Dunham Massey	at line	strong
	Tatton	at line	good
SHROPSHIRE	Gt. Wenlock	at line	strong
	Shrewsbury	west	fair
WORCESTERSHIRE	Redmarley	at line	strong
LANCASHIRE	Mitton	north	good
	Lancaster	northwest	strong
	Hale Hall	west	strong
	Broughton-in-Furness	north	fair

Map 4.3 above highlights 26 points, on the basis of which the demarcation was drawn. The information shown in Table 4.5 is taken from Moore, Meech and Whitehall (1935) in a slightly reformatted display. These points, listed above, include a statement as to the reliability of the evidence for having established each point, i.e. **weak < fair < good < strong**. The location indicates where the evidence was established for the demarcation in relation to the town, i.e. at the town, northeast of it, etc., as well as the reliability of the evidence at that point.

The initial question I raised in relation to this historical situation was: did such a spelling change reflect sound changes and/or morphological change, and if so would there be any remaining clues to be found in the twentieth century variable which pointed back to this change and its boundaries c.1450. I broke this question down into two further questions about the modern data: (1) Is there any discernible demarcation between the regions in modern Britain along the old 1450 lines which is manifested as different grammatical effects on (ING), and (2) is there any discernible difference between such regions with respect to pronunciation of the variable?

Table 4.6 shows the percentages and probabilities for the British speech communities. These were run against sex, age, and grammatical category,

Table 4.6

RUN 1

Probability of Velar Application of (ING) according to Dialect

Dialect Region	p	%	N
Essex	.89	51	107
Birmingham	.85	50	54
Battersea Park	.67	42	170
Hackney	.63	30	102
Manchester	.63	21	131
Chelsea	.58	20	158
Bethnal Green	.56	32	87
Southall	.51	20	192
Cardiff	.49	15	157
Leeds	.47	13	71
Norwich	.42	11	117
Bristol	.42	17	151
Glasgow	.38	19	177
Edinburgh	.38	18	190
Liverpool	.11	2	288
Gateshead	.08	4	211
Men	.46	16	1561
Women	.54	27	802
10-17	.48	19	917
18-34	.36	16	529
35-55	.75	22	241
56+	.39	22	676
input prob.	.27		2363

of cells = 425

chi sq./cell = 1.67

log likelihood = -841.6313

Table 4.6 (continued)

RUN 1

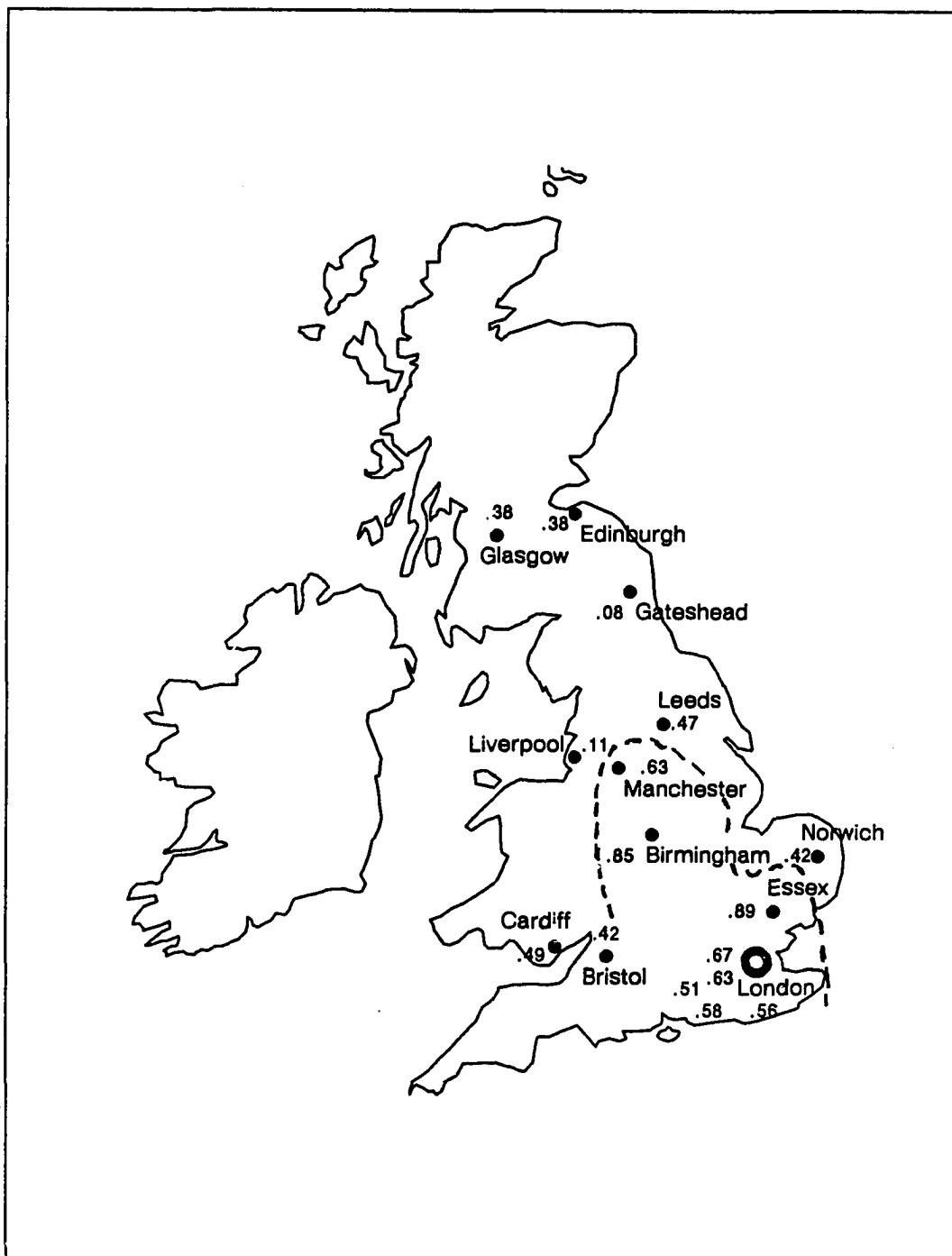
**Probability of Velar Application for (ING) according to
Grammatical Category**

	p	%	N
no/some/any/everything	.96	87	122
proper names	.91	70	27
adjunct modifier (+gerund)	.67	29	28
compound modifier (+gerund)	.66	41	27
derived nominals	.65	32	72
monomorphemics	.51	30	99
predicate adjectives	.50	22	18
adjunct modifier (+participle)	.50	20	29
non-adjunct modifiers (+participle)	.44	18	55
acc-ing	.43	15	26
verb phrase complements (-equi)	.42	15	62
sentential complements	.41	20	46
verb phrase complements (+equi)	.40	18	38
gerunds	.40	17	367
reduced relative clauses	.39	18	79
appositive participles	.36	19	111
quasi-progressives	.30	13	160
periphrastic future progressives	.27	10	973
prepositions	.15	13	24
			2363

(Note: absolute participles, N = 6, have 0% applications (knock-out factor) and were combined with appositives. The figures for dialects form a continuum. The probabilities are shown on Map 4.4 below according to the location of each speech community in relation to the demarcation for *-ing* c.1450.

Map 4.4

Probabilities of Velar Application for Modern British Data by Speech Community



With reference to the isogloss of c.1450, the probabilities are aligned as follows; those regions which favor G, i.e. have a probability of greater than .5, fall within the region which had replaced *-lnd* with *-Ing*, and those which disfavor G (have a probability of less than .5), fall outside the region.

This is under the assumption that Bristol and Cardiff should be included with the northern dialects. Moore, Meech and Whitehall do not have clear evidence for the boundary in southwestern England for the 1450 isogloss, yet the evidence given by them indicate that the spread was from the southeast. Assuming this, it's possible that the change had not spread westward as far as Bristol and Cardiff by the mid fifteenth century.

Although the data show a notable correlation to this historical demarcation, the overall error (determined by the chi square for the run) is considerably greater than 1/cell. An overall fit of about 1/cell is considered to be acceptable, as a general rule of thumb. At first inspection Run 1 (Table 4.6) shows a further demonstration of sensitivity to synchronic grammatical categories in that four sets of subcategories appear at approximately the same level. The proof that these subcategories behave in the same way as far as (ING) is concerned is shown below in Table 4.7, (next page).

The relevant syntactic feature which distinguishes groups A and B in Table 4.7 appears to be whether (ING) occurs in a finite or non-finite construction. The fact that gerunds can be grouped with non-finite participles is consistent with gerunds' not occurring with tense, although they do take aspect. The nominal-verbal effect is seen in the separation of concrete derived nominals (Group C) from gerunds; the former are more nominal as seen by their inability to take oblique or direct objects, as well as their inability to take aspect or passive voice. (See Chapter Three, Section 3.4.1.3). There is no immediate synchronic explanation for the similarity between derived nominals, e.g. *ceiling*, and adjunct modifiers (+gerund), e.g. *waiting list*. Nor is there an immediate synchronic account for the significant differences between the adjunct modifiers (+ger) and the adjunct modifiers (+part), adjectives and predicate adjectives shown in Table 4.11 (see page 111). A reason for this division can be found, however, from a diachronic perspective, the discussion of which will be postponed until Chapters Five and Six.

Table 4.7**Groups of Non-significantly Different Categories**

A		B	
gerunds		adjectives (+part.)	
acc-ing		adjunct modifiers (+part)	
gerund NP complements		predicate adjectives	
verb phrase complements			
reduced relative clauses		log likelihood --835.1331	Not Sig.
appositive participles		log likelihood --835.2291	
sentential complements			
log likelihood --834.5768	Not Sig.	D	
log likelihood --835.1331		progressives	
C		quasi-progressives	
derrived concrete nominals		periphrastic future	
adjunct modifiers (+ger)		log likelihood --835.1131	
compound modifiers (+ger)		log likelihood --838.8604	
log likelihood --834.5768	Not Sig.	4 deg. freedom	Not Sig.
log likelihood --834.5900			

In Table 4.7 the first log likelihood for each group represents the value when categories within each group were run separately. The second value represents the log likelihood when these categories were combined. For each group in Table 4.7 the difference between the two log likelihoods is not significant at the .05 level.

It is also possible to group the urban centers according to those which are not significantly different from each other. Manchester was not significantly different from Battersea and Hackney. Combining all London dialects together was significant at .05. Norwich, Leeds, Bristol, Cardiff, Edinburgh, and Glasgow together were not significantly different at .05. However, Gateshead and Liverpool were significantly different at .001 when combined with the other northern and peripheral regions. Birmingham by itself was not significantly different from London, but Essex was, $p < .001$. Thus five groups were determined to be significant, although the differences in London are marginal.

Table 4.8

Five Significant Regional Groupings for British Data

Southern-internal	Northern-peripheral
Manchester	Bristol
Birmingham	Cardiff
Hackney	Edinburgh
Battersea Park	Glasgow
$p < .05$	Norwich
Chelsea	Leeds
Bethnal Green	$p < .001$
Southall	Liverpool
$p < .001$	Gateshead
Essex	

Despite these differences, the major line of demarcation is between two groups, which correspond to the regions lying inside and outside the Moore, Meech and Whitehall isogloss. A number of additional grammatical categories were also not found to be significantly different from each other.

The adjunct modifiers (+gerund) and concrete derived nominals showed a significant difference at the .001 level when combined with non-finite participles and gerunds. Proper names and the compounds any/every/no/something were barely significant at the .05 level, (chi square = 4.46). Because stress may be a contributing factor to the higher application of G with the compounds, and because both the compounds and names are nominal, I grouped these together. Non of the participial types of adjective (predicate adjective, non-adjunct modifier and adjunct modifier), were significantly different from the finite participles, so these were also grouped together.

The results for the final run from Table 4.6 above are shown in Table 4.9 below. Table 4.9 shows grammatical category run with major dialect region and age. Sex is not shown here, although it proved to be significant, $p < .05$. (3) Age is shown here

combined into two groups, under 35 and over 35. The grammatical categories are shown grouped according to the non-significant groupings discussed in the preceding paragraphs.

Table 4.9

Final Run

Probabilities of Velar Application of (ING) in British Synchronic Data
according to Grammatical Category, Dialect Region and Age

	<u>p</u>	<u>%</u>	<u>N</u>
proper names			
any/every/some/nothing	.93	84	149
derived nominals			
adjunct modifiers (+ger)			
compound modifiers (+ger)	.63	33	127
monomorphemic nouns	.48	30	99
gerunds			
gerund NP complements			
acc-ing			
verb phrase complements			
reduced relative clauses			
appositive participles			
absolute participles	.36	17	735
progressives			
quasi-progressives			
periphrastic future			
non-adjunct modifiers (+part)			
adjunct modifiers (+part)			
predicate adjectives	.26	11	1229
prepositions	.20	13	24
Lon/Man/Bir/Esx	.67	31	1001
Bris/Car/Glg/Edn/Lvp/Gtd/Nor/Lds	.33	11	1362
under 35	.42	18	1446
over 35	.58	22	917
input prob.	.27	20	2363

log likelihood = -912.9797

chi sq./cell = .90

4.4.1 The Nominal-Verbal Continuum

The grammatical factors exhibit a sensitivity to the nominal-verbal scale of (ING) with the more nominal categories favoring G and the less nominal favoring N. One deviation from this pattern are the monomorphemic nouns, which disfavor applications of G. This is probably due to the majority of forms in this category being the lexical items *morning* and *evening*.

In Chapter Three (Table 3.8) a discrete syntactic feature matrix was discussed, represented again here in Figure 4.1.

Figure 4.1
Discrete Feature Matrix

	+N	-N
+V	A	V
-V	N	P

Table 4.10 below shows the results of combining the grammatical categories according to this matrix. Figure 4.2 shows which categories are classified within each group. Gerunds, Acc-ing, and gerunds as NP complements were not included within any of the four feature complexes.

Table 4.10

FINAL RUN

**Probabilities of Velar Application of (ING) according to
Chomsky's Syntactic Feature Matrix**

	<u>p</u>	<u>%</u>	<u>N</u>	
Nominals	.82	56	320	[+N -V]
Modifiers	.59	24	157	[+N +V]
Gerunds	.44	17	393	
Participles	.34	12	1469	[-N +V]
Prepositions	.27	13	24	[-N -v]
Lon/Man/Bir/Esx	.67	31	1001	
Edn/Glg/Liv/Gat/Lds/Nor/Brs/Car	.33	11	1362	
under 35	.43	18	1446	
over 35	.57	22	917	
input prob.	.21	20	2363	

of cells = 20

chi sq./cell = 1.23

log likelihood = -961.2396

Figure 4.2

**Classification of Grammatical Categories by Discrete Feature Matrix
(excluding gerunds, acc-ing and gerunds as NP complements)**

+N -V	+N +V
proper names	adjunct modifiers (+ger)
derived nominals	adjunct modifiers (+part)
any/every/some/nothing	compound modifiers (+ger)
monomorphemics	non-adjunct modifiers (+part)
	predicate adjectives
-N +V	-N -V
verb phrase complements	prepositions
appositive participles	
reduced relative clauses	
absolute participles	
sentential complements	
progressives	
quasi-progressives	
periphrastic future	

In Table 4.10 there are a number of grammatical groups which were significantly different from each other. These are shown in Table 4.11 with the level of significance indicated to the right.

Table 4.11

Significantly Different Categories not Shown in Table 4.10

[+N +A]		[+N +A]
adjunct modifiers compound modifiers (+ger)	+	adjunct modifiers non-adjunct modifiers (+part) predicate adjectives
	p < .05	
[-N +V]		[-N +V]
progressives quasi-progressives periphrastic future	+	verb phrase complements appositive participles
	p < .05	
[+N -V]		[+N -V]
derived nominals monomorphemics	+	proper names any/every/some/nothing
	p < .001	

Table 4.11 shows that the discrete feature matrix combined categories which were significantly different with respect to applications of (ING). From these observations it can be seen that the discrete model does not express the grammatically-conditioned variation of (ING) as well as a linear non-discrete continuum.

The grammatical effect cannot be reduced to other factors. Although there is a correlation between the syntax and semantics of forms with (ING), (e.g. derived nouns and concrete referents, progressives and actions), the grammatical effect cannot be reduced to semantics. In two successive variable rule analyses, eliminating the dimension of semantics from the second run was not significant at the .05 level. This is shown in Table 4.12 below. (Note: the compounds *everything*, *anything*, *something* and *nothing* are included in the first run as a single category).

Table 4.12

Probabilities of Velar Application for Semantic Dimension in British Data

	p	%	N
every/any/some/nothing	.73	88	111
observable attributes	.68	27	44
mental events	.56	19	89
simple actions	.51	15	840
complex actions	.49	15	645
events of communication	.47	12	139
abstract attributes	.46	13	145
concrete objects	.41	36	140
change of state	.35	7	131
temporal referent	.33	25	79
proper names			
any/every/some/nothing	.87	84	149
derived nominals			
adjunct modifiers (+ger)			
compound modifiers (+ger)	.64	33	127
monomorphemic nouns	.59	30	99
gerunds			
gerund NP complements			
acc-ing			
verb phrase complements			
reduced relative clauses			
appositive participles			
absolute participles	.33	17	735
progressives			
quasi-progressives			
periphrastic future			
non-adjunct modifiers (+part)			
adjunct modifiers (+part)			
predicate adjectives	.25	11	1229
prepositions	.26	13	24
Lon/Man/Bir/Esx	.67	31	1001
Bris/Car/Glg/Edn/Lvp/Gtd/Nor/Lds	.33	11	1362
under 35	.42	18	1446
over 35	.58	22	917
input prob.	.30	20	2363

Log Likelihoods for Table 4.12

Run 1	Log likelihood = -903.4393	
	# of cells = 118	
	chi sq./cell = 1.71	
Run 2	Log likelihood = -912.9798	(semantics deleted)
	# of cells = 24	p < .1 Not Significant
	chi sq./cell = 90.2	

Table 4.12 does not show a parallel pattern between grammatical effect and a semantic concrete–abstract continuum. Whatever nominal traits are associated with referentially concrete objects, and verbal traits with referentially abstract processes, it does not appear that these form the basis for the presence of the nominal–verbal continuum for (ING). This continuum would seem to be based on principles more abstract than referential semantics.

The grammatical effect is also not due to the etymological origins of forms, this dimension was also not significant. Table 4.13 below shows that deleting the dimension of etymology from the second run of a variable rule analysis does not result in a significant difference.

Table 4.13
Probabilities of Velar Application for Etymology of British Data

	p	%	N
Germanic	.62	27	11
Latin	.56	21	28
Scandinavian	.49	14	221
English	.46	21	1773
French	.37	11	315
proper names any/every/some/nothing	.93	84	149
derived nominals adjunct modifiers (+ger) compound modifiers (+ger)	.62	33	125
monomorphemic nouns	.47	30	99
gerunds gerund NP complements acc-ing verb phrase complements reduced relative clauses appositive participles absolute participles	.35	17	729
progressives quasi-progressives periphrastic future non-adjunct modifiers (+part) adjunct modifiers (+part) predicate adjectives	.25	11	1222
prepositions	.24	13	24
Lon/Bir/Man/Esx	.67	31	992
Liv/Gat/Gla/Edn/Lds/Nor/Bri/Car	.33	11	1356
under 35	.42	18	1433
over 35	.58	22	915
input prob.	.32	20	2348

Note: 15 tokens of uncertain etymological origin were omitted from Table 4.13.

Log Likelihoods for Table 4.13

Run 1 log likelihood = -902.2907
 # of cells = 71
 chi sq./cell =1.25

Run 2 log likelihood = -905.1354 (etymology deleted) Not Significant
 # of cells = 24
 chi sq./cell =.93

Although it might be expected that the synchronic data might reveal a significant difference in (ING) variation with respect to etymology, no such effect is found. Even a broader stylistic effect of etymology, i.e. assuming French words are more formal than English ones, is not born out by the data. The prepositions in the synchronic data show the lowest application of G, and all are of French origin. I will have more to say about this point.

The effect of number of stem syllables is also not significant with respect to the dependent variable as shown in Table 4.14 below.

Table 4.14
Probabilities of Velar Application according to Number of Stem Syllables
for British (ING) Data

	p	%	N
five syllables	.73	33	3
four syllables	.29	10	21
three syllables	.53	43	240
two syllables	.45	17	2099
proper names any/every/some/nothing	.92	.84	149
derived nominals adjunct modifiers (+ger) compound modifiers (+ger)	.63	33	127
monomorphemic nouns	.49	30	99
gerunds gerund NP complements acc-ing verb phrase complements reduced relative clauses appositive participles absolute participles	.37	17	735
progressives quasi-progressives periphrastic future non-adjunct modifiers (+part) adjunct modifiers (+part) predicate adjectives	.27	11	1229
prepositions	.19	13	24
Lon/Bir/Man/Esx	.67	31	1001
Liv/Gat/Gia/Edn/Lds/Nor/Bri/Car	.33	11	1362
under 35	.42	18	1446
over 35	.58	22	917
input prob.	.31	20	2363

Log Likelihoods for Table 4.14

Run 1	log likelihood = -910.9160		
	# of cells = 56		
	chi sq./cell = 1.42		
Run 2	log likelihood = -912.9798	(syllables deleted)	Not Significant
	# of cells = 24		
	chi sq./cell = .90		

The type of clause which an (ING) category occurs in does not appear to make any difference with respect to (ING) variation, with the possible exception of questions. Main clauses, relative clauses, finite and non-finite subordinate clauses were all combined without a statistically significant difference between the log likelihoods, but the change in log likelihood when questions were deleted was significant at the .001 level. This effect was traced to gerunds which occur in questions. Due to the small number of examples of questions, however (N = 14), this effect may not be as great as it appears for the present corpus. Table 4.15 shows the significance of deleting questions from the dimension of clause type as run against grammatical category, and major dialect regions.

Table 4.15
Probabilities of Velar Application according to Clause Type for
British Data

	<u>p</u>	<u>%</u>	<u>N</u>
questions	.83	29	14
non-finite	.45	20	266
main	.42	20	1413
finite subordinate	.41	19	481
relative clause	.34	13	97
proper names			
any/every/some/nothing	.93	.84	149
derived nominals			
adjunct modifiers (+ger)			
compound modifiers (+ger)	.63	33	127
monomorphemic nouns	.48	30	99
gerunds			
gerund NP complements			
acc-ing			
verb phrase complements			
reduced relative clauses			
appositive participles			
absolute participles	.35	17	735
progressives			
quasi-progressives			
periphrastic future			
non-adjunct modifiers (+part)			
adjunct modifiers (+part)			
predicate adjectives	.26	11	1223
prepositions	.20	13	24
Lon/Bir/Man/Esx	.67	31	992
Liv/Gat/Gla/Edn/Lds/Nor/Bri/Car	.33	11	1356
under 35	.41	18	1433
over 35	.59	22	915
input prob.	.34	20	2348

Log Likelihoods for Table 4.15

Run 1 log likelihood = -908.3504
 # of cells = 92
 chi sq./cell = .93

Run 2 log likelihood = -901.1252 (questions deleted)
 # of cells = 39
 chi sq./cell = .84 p < .001

4.4.2 Ross's Model and (ING)

The grammatical effect shown in Table 4.9 above can be shown to correspond more closely to Ross's continuum, Ross (1973). Both the grammatical effect observed in Table 4.9 and Ross's continuum are linear, unlike the matrix shown in Figure 4.1. Ross's continuum discussed in Chapter Two is shown below in Figure 4.3. The categories which are relevant in the continuum to the British (ING) data are shown in bold-faced print.

Figure 4.3

Correspondence Between Ross's Continuum (1972) and British (ING) Data

verb	>	present participle	>	passive participle	>	adjective	>
		12.1%				25.2%	
		178/1469				36/143	
		preposition	>	adjectival noun	>	noun	
		12.5%				36.7%	
		3/24				72/198	
<i>Key</i>							
<i>present participle – finite participles non-finite participles</i>							
<i>adjectives – adjunct modifiers (ger/part) predicate adjectives non-adjunct modifiers</i>							
<i>prepositions</i>							
<i>nouns – monomorphemics derived nominals proper names</i>							

v

The probabilities and percentages of velar application shown earlier in Table 4.9 roughly correspond to this continuum, with present participles (finite and non-finite) showing lower G than either adjectives or nominals. Yet Ross's continuum would apparently not predict the observed difference between gerundive and participial types of adjectives. One category out of alignment are the prepositions, which show an even lower application of G than the participles. Despite this difference, the second linear continuum described by Ross (1973) for nominal and verbal traits shows a correlation with the ranking of velar applications of the gerund and related categories.

4.4.3 Gerunds

As discussed in Chapter Three, gerunds fall along a nominal-verbal continuum; this is also addressed by Ross who proposes the following order with the most verbal complements towards the left, and the most nominal towards the right. Figure 4.4 suggests that the application of G with (ING) is roughly aligned with increasing nominal traits of the (ING) category.

Figure 4.4

Correlation Between Ross's Continuum (1973) and British (ING) Data

that >	for to >	acc-ing >	(verbal gerunds) gerundive nominal >	(nominal gerunds) action nominal >
		15%	17.5%	18.9%
		4/26	28/160	30/158
	derived nominal >	noun		
	32%	62.5%		
	23/72	155/248		

The difference in velar application between Acc-ing, verbal and nominal gerunds is not statistically significant. Yet if the gerunds (not including Acc-ing) are grouped according to their syntactic position as subject, object or oblique object, there is a difference with respect to (ING). This is shown in Table 4.16.

Table 4.16

Probabilities of Velar Application for Gerunds in British Data
according to Syntactic Position of Gerund

	<u>p</u>	<u>%</u>	<u>N</u>
subject position	.59	28	64
object/oblique position	.41	16	254
object control	.66	31	26
inferrable control	.50	23	26
no control	.46	20	133
subject control	.38	13	133
determiner	.58	28	50
no determiner	.42	16	268
input prob.	.29	18	318

log likelihood = -144.3295

of cells = 9

chi sq./cell = .48

The presence of a determiner was not significant at .05, and deleting this dimension improved the fit of the probabilities to observation from .48/cell to .18/cell. The dimension of control was significant at the .05 level. The difference shown in Table 4.16 between gerunds in different syntactic positions can be correlated to a difference in nominal-verbal attributes, although somewhat more indirectly than the differences between nominal and verbal gerunds.

Wasow and Roeper (1972) argue that control significantly contributes to the nominal or verbal nature of gerunds. (4) In general the data in this study support their view; verbal gerunds manifest overt control, and nominal gerunds do not.

(4.1) *dancin'* is comin' back in.

(Cardiff, A421, J., 643) nominal gerund

(4.2) they caned me for *talkin'*

(Chelsea, A032, J.G., 246) verbal gerund

Neither of the above examples have overt modifiers or possessive pronouns. Yet in (4.1) the subject of *dancing* is non-specific, whereas in (4.2) *talking* is controlled by the object of the main clause. (4.1) is a nominal gerund as shown by the unacceptability of adding verbal elements to it, and the acceptability of adding nominal ones.

- (4.1)' a. **Slowly dancing* is coming back.
b. **Having danced* is coming back.
c. *Slow dancing* is coming back.

Just the opposite is true for (4.2) as shown in (4.2)'.

- (4.2)' a. They caned me for *always talking*.
b. They caned me for *having talked*.
c. They caned me for ?*slow talking/talking slowly*.

Table 4.17 shows the distribution of control for gerunds according to their syntactic position. (5) The association of subject position with non-specific control (a nominal trait) and object/oblique position with subject/object control (a verbal trait) is evident.

Table 4.17

Distribution of Control Type according to Syntactic Position of Gerund

	%			
	subject	object	oblique	
subject control	16.1	57.3	45.5	N = 318
object control	0.0	1.1	12.6	
inferrbale control	14.5	3.4	8.4	
no control	69.3	38.2	33.5	
	99.9%	100%	100%	
	(62)	(89)	(167)	

Control is a verbal trait in the sense that it defines a subject for an expression, a characteristic of sentences. In contrast, no control is a nominal trait in the sense that nouns do not have subjects. Possessive pronouns which occur with both simple nouns and Poss-ing constructions represent an intermediate point between control and no control.

Table 4.18 shows the distribution of determiner types according to the syntactic position of the gerund.

Table 4.18

Distribution of Determiner Types according to Syntactic Position
of Gerund %

	subject	object	oblique	
definite/indefinite article	11.7	20.5	6.7	N = 312
quantifier	8.3	7.9	1.2	
adjective	1.7	10.2	1.8	
no modifier	78.3	61.4	90.2	
	100%	100%	99.9%	
	(60)	(88)	(164)	

(Note: The 6 tokens of possessive noun in the corpus are omitted)

With respect to determiners, the gerunds in oblique position show a difference from those in subject and object positions. In this sense they exhibit greater verbal alignment, since the presence of articles, adjectives and quantifiers is typically associated with nominal forms. This is not a strong effect however, since all three syntactic positions exhibit a large number of examples with no modification,

(4.3) and then in the wintertime you see, *after the autumn sewing was done*

(Essex, A504, M.R., 505) subject position with determiner

(4.4) he lost *all the feeling* in one leg

(Edinburgh, A467, Mrs. Y., 830) object position with quantifier and article

(4.5) that's the trouble about *tryin' to save the fishin' rights* and all that.

(Bristol, A413, G.G., 829) oblique position with no modifier

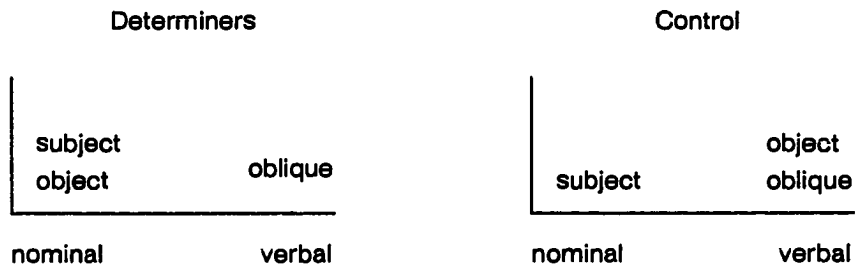
There were only 6 tokens in the synchronic data which exhibited a possessive pronoun, characteristic of Poss-ing. This may be accounted for by the greater stylistic formality of this construction when compared to constructions which exhibit no form of modification.

With respect to control and type of determiner, the syntactic position of gerunds has been shown to manifest a nominal–verbal alignment, with subject position most nominal and oblique most verbal. Gerunds in object position pattern with those in oblique with respect to control, and with those in subject position with respect to determiners. This is schematized in Figure 4.5.

Figure 4.5

Grouping of Gerunds on the Basis of Co-occurrence with Type of Determiner and Type of Control

(Gerunds in their Syntactic Position)



The difference between the major dialect regions with respect to the application of G for gerunds does not show uniform differences across the three syntactic positions. A fanning effect is shown in Table 4.19 below.

Table 4.19

Percentage of Velar Application for Gerunds according to Syntactic Position and Dialect Region

	%	%	%	
	subject	object	oblique	
Inside dialects	35	29	27	N = 318
Outside dialects	24	8	8	
	N = 62	N = 89	N = 167	

4.4.4 Syntactic Control

Besides the patterns of control exhibited for the gerunds, control is also relevant to several categories of the present participle including reduced relative clauses, appositives, and verb phrase complements. Control does not function the same for all syntactic categories; verbal complements take either categorical subject control (i.e. Equi Np deletion) or categorical object control (i.e. without Equi NP Deletion). This fact is illustrated in Table 4.20 below.

Table 4.20

Distribution of types of Syntactic Control according to Grammatical Category

	Control				N = 606
	subject	object	inferrable	indeterminate	
VP complement [+ <i>equi</i>]	38	–	–	–	
VP complement [– <i>equi</i>]	–	62	–	–	
appositive participles	88	13	3	7	
reduced relative clauses	47	31	1	–	
gerunds	136	22	132	26	
	309	128	136	33	

(4.6) ask them if they'd mind *Ø cutting* it for ya.

(Birmingham, A432, M.L., 842) Vcomp [+*equi*]

(4.7) We don't mind *her wearin' it* AS a mini-skirt

(Bethnal Green, A406, Mr.R., 540) Vcomp [–*equi*]

Reduced relative clauses may exhibit either subject or object control:

(4.8) There were so many people *workin' on the farms* at that time of day,

(Essex, A504, Mr. R., 038) (6) subject control

(4.9) ya had a few pais *workin' in the same room*

(Manchester, A414, L.R., 353) object control (7)

Examples of inferrable control and no control are illustrated in the following sentences.

(4.10) (it was) for *breakin' into three houses*

(Battersea Park, A696, R.R., 855) oblique gerund inferrable control

(4.11) There used to be room for *this dress-making and tailoring*
(Birmingham, A432, M.L., 328) oblique gerund no control

(4.12) it was alright goin' up startin on the job...and comin' back down again,
takin' it away
(Glasgow, A679, G.J., 620) appositive participle inferrable control

In (4.10) and (4.12) the context makes it clear that the speaker is referring to himself, whereas in (4.11) the context is dress-making in general.

Because the verbal complements take either subject or object control categorically, and appositives and reduced relative clauses take essentially only explicit control, I only considered the probabilities for gerunds. The results for gerunds were shown above in Table 4.16.

4.4.5 Discussion

From the above tables and examples the existence of a non-discrete continuum has been demonstrated for the grammatical categories occurring with (ING). This continuum is defined as a nominal-verbal scale, and was found to correspond roughly to both the continuum proposed by Ross (1972) and to the continuum for gerunds proposed in Ross (1973). The effect was also shown not to be reducible to other effects such as etymology, semantics, or number of syllables.

In light of these findings the evidence supports the existence of non-discrete categories which speakers have knowledge of and which are represented at a more abstract level of grammar than referential semantics. The inadequacy of a discrete feature matrix in modelling the grammatical effect on (ING) was seen as the inability to account for gradient behavior within and between the discrete categories defined by the system of binary features. The grouping of (ING) categories based on applications of G corresponds approximately to Ross's alignment of nominal and verbal categories along a continuum. (Prepositions showed a lower application of G than would have been expected with respect to Ross's continuum). Ross's adoption of non-discrete categories is also corroborated by

these findings, although the corroboration here is phonological and not a set of syntactic transformations.

I would like to discuss a further effect in the British data which relates to both the grammatical effect and the demarcation between the northern/peripheral and southern/internal dialects. For ease of discussion, and with relevance to the Moore, Meech and Whitehall demarcation, I will refer to the northern/peripheral dialects as *outside* and the southern/internal ones as *inside* dialects.

4.5 The Grammatical Effect and Dialect

Table 4.9 showed a difference between the two major dialect areas with respect to the probabilities of velar application of (ING). This table also showed a grammatical effect on velar application. What Table 4.9 did not indicate, however, was the existence of differences between grammatical categories as contrasted between the two dialect regions. Table 4.21 below shows the major grammatical categories for both regions, and reveals that the differences of velar application between the two regions are more pronounced for some categories than for others.

Table 4.21

Percentage of Velar Application for Major Grammatical Categories
according to Inside and Outside Dialect Regions

Categories	Inside		Outside	
	%	N	%	N
any/every/some/nothing	90.8	79/87	77.1	27/35
proper names	73.3	11/15	66.7	8/12
derived nominals/modifiers (+ger)	38.9	14/36	30.8	28/91
monomorphemics	44.0	22/50	16.3	8/49
gerunds/acc-ing/NP complements	26.1	46/153	11.3	27/240
verb phrase complements	34.3	12/35	6.2	4/65
non-finite participles	31.6	36/114	6.3	8/128
quasi-progressives	21.6	16/74	4.7	4/86
progressives/periphrastic/modifiers (+part)	18.4	78/423	5.9	38/646
prepositions	14.3	2/14	10.0	1/10
		1001		1362

The differences and similarities between the two dialect regions are brought out more sharply by comparing the chi squares between their applications of G for each major grammatical group. This is shown in Table 4.22. (Note: Prepositions and quasi-progressives are not shown for their chi squares, since there were fewer than five tokens per cell).

Table 4.22

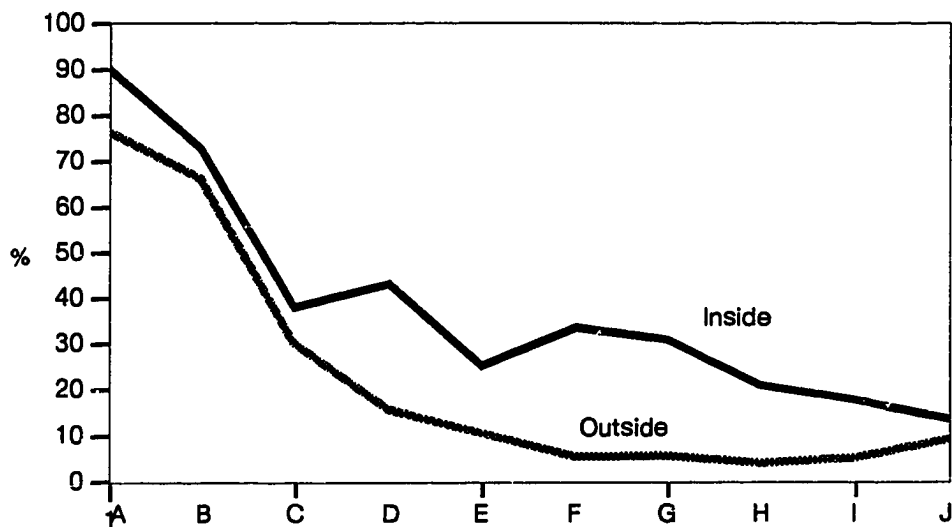
Chi Squares for Grammatical Groups shown in Table 4.21

Categories	chi square	significance
any/every/some/nothing	4.09	.05
proper names	.14	Not Sig.
derived nominals/modifiers (+ger)	.77	Not Sig.
monomorphemics	8.97	.005
gerunds/acc-ing/NP complements	21.87	.001
verb phrase complements	13.40	.001
non-finite participles	30.40	.001
progressives/periphrastic/modifiers (+part)	41.91	.001

With the exception of prepositions, the general trend is that between the dialect regions, there are less differences between the more nominal categories than between the more verbal ones. Figure 4.6 below shows the results from Table 4.21.

Figure 4.6

Graphic Representation of Table 4.21



- | | |
|-------------------------------------|---|
| A any/every/some/nothing | F verb phrase complements |
| B proper names | G non-finite participles |
| C derived nominals/modifiers (+ger) | H quasi-progressives |
| D monomorphemics | I progressives/periphrastic/modifiers (+part) |
| E gerunds/acc-ing/NP complements | J prepositions |

Although the prepositions present some deviation from the basic pattern, these forms historically were borrowings from French, and as such are one class whose forms are not predominately of native origin.

Table 4.23

Distribution of Etymological Origins for (ING) Tokens according to Grammatical Categories

		English	French	Latin	Germanic	Scandinavian	Total
A	%	92.6	7.4	0	0	0	100
	N	25/27	2/27	0/27	0/27	0/27	27
B	%	91.1	8.1	0	0	0	100
	N	91/99	8/99	0/99	0/99	0/99	99
C	%	80.0	13.6	1.6	.8	4.0	100
	N	100/125	17/125	2/125	1/125	5/125	125
D	%	71.9	15.8	1.2	.5	10.6	100
	N	524/729	115/729	9/729	4/729	77/729	729
E	%	74.4	12.6	1.2	.5	11.4	100
	N	909/1222	154/1222	14/1222	6/1222	139/1222	1222
F	%	8.3	79.2	12.5	0	0	100
	N	2/24	19/24	3/24	0/24	0/24	24
							2226

A Proper names

B Monomorphemic nouns

C Derived nominals/modifiers (+ger)

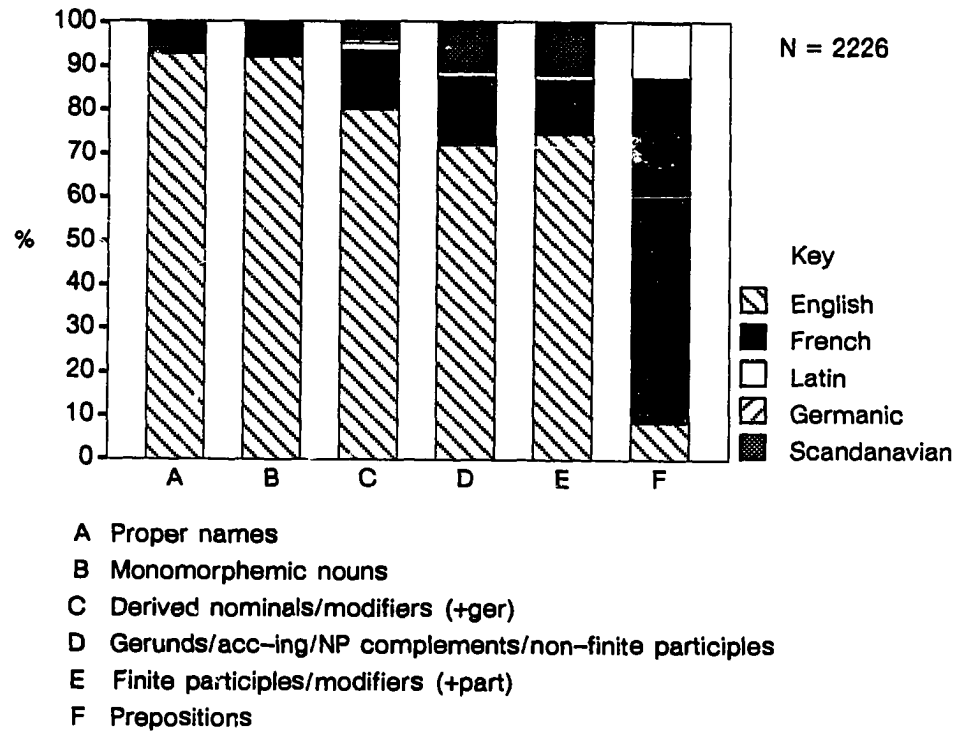
D Gerunds/acc-ing/NP complements/non-finite participles

E Finite participles/modifiers (+part)

F Prepositions

Figure 4.7

Graphic Representation of Data in Table 4.23



Note: In Table 4.23 N does not equal 2363 because there are 15 tokens of unknown origin not included here. Also the compounds *everything*, *anything*, *something* and *nothing* are not shown since they are 100% English origin.

If the percentages for grammatical categories as defined by the discrete feature matrix are compared between the inside and outside dialect regions, there is no observed fanning effect, as shown earlier in Figure 4.6.

Table 4.24

**Comparison of Velar Applications according to Discrete Feature Model
for Inside and Outside Dialect Regions**

	Inside		Outside		
	%	N	%	N	
[+N -V]	68.0	174	40.0	146	N = 2070
[+N +V]	38.0	45	18.0	112	
[-N +V]	21.0	615	5.0	854	
[-N -V]	14.0	14	10.0	10	
	848		1122		

excluding gerunds/acc-ing/NP complements

The loss of the fanning distinction is also seen in the chi squares for the categories shown in Table 4.24, since both nominal and verbal categories are significantly different between the inside and outside regions.

Table 4.25

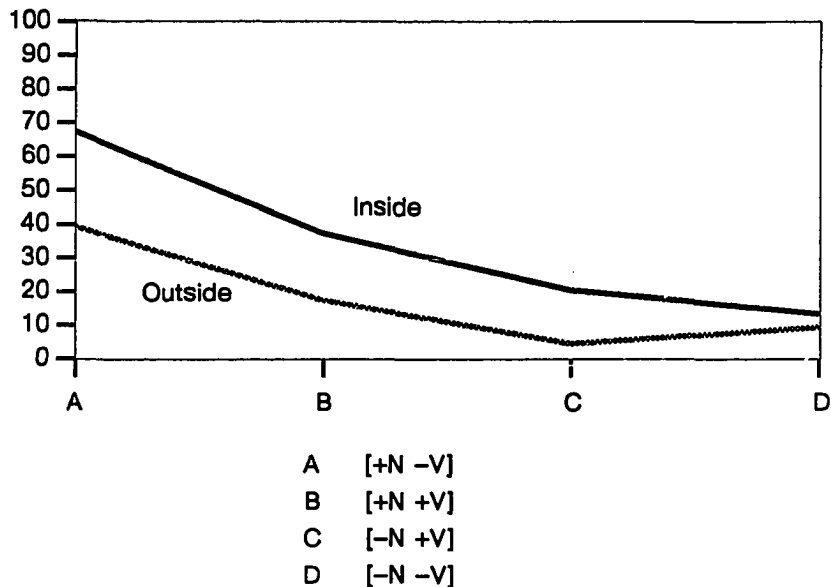
Significance of Chi Squares for Difference between Categories
for Inside and Outside Dialects shown in Table 4.24

[+N -V]	p < .001
[+N +V]	p < .01
[-N +V]	p < .001
[-N -V]	Not Sig.

gerunds/acc-ing/NP complements p < .001 (same as in Table 4.22)

Figure 4.8

Graphic Representation of Data shown in Table 4.24



The greater difference between the verbal categories, as opposed to the nominal ones, leads to the question of whether this effect bears any relation to the historical replacement of *-ind* with *-ing*, this having occurred in the southern part of England, before the northern part. I will postpone this issue until Chapter Six, but the effect shown above is

consistent with the view that the original participle suffix *-ind* was associated with apical N, and *-ing* associated with velar G. In addition it is consistent with the view that the spelling change appearing in the southern dialects during the fifteenth century was indicative of a difference in pronunciation in contrast to the suffix represented by *-ind*. The fact that the nominal categories in both regions are closer is consistent with the view that the feminine suffix *-ing* was pronounced more or less the same in both regions even prior to the change of the participle's suffix.

4.6 The Vowel Nucleus of Modern (ING)

Before turning to address the history of the *-ing* suffix, there remains the issue of the effect of the vowel nucleus on (ING). As discussed in Chapter Two, Woods (1979) reported the significance of three vowel variants; /i/, /ɪ/ and /ə/. Most studies have assumed two values, /i/ with velar G, and /ə/ with apical N. Table 4.26 below shows the distribution of the major vowel variants of the vowel preceding the nasal of (ING) as they occurred in the modern British dialects.

Table 4.26
Distribution of Vowel Variants in (ING) according to British Dialect

	/i/	/ɪ/	/E/	/H/	/ə/	/ŋ/
Chel/South/Beth	10.0	26.6	1.9	17.1	37.1	7.4
Batt/Hackney	15.4	41.0	–	8.3	30.0	5.0
Man/Bir	11.7	47.8	2.2	13.3	21.7	3.3
Essex	1.0	53.3	1.9	6.5	30.0	7.5
Bris/Card	6.0	27.8	–	23.8	34.4	8.0
Leeds/Nor	3.3	40.6	–	15.0	27.2	13.9
Glas/Edin	1.9	21.0	0.2	14.1	41.7	21.0
Liv/Gates	1.5	6.2	1.7	14.5	48.0	28.2

N = 2363

Table 4.26 shows that the outside dialects manifest a higher percentage of syllabic /n/ than the inside ones. The high front variant /i:/ is used predominately in the south. All regions show a relatively frequent use of /ə/ which is, in fact, the most common nucleus associated with apical N. Figure 4.3 below shows the overall distribution for the five major vowel variants in the British data, /i:/, /ɪ/, /ʌ/, /ə/ and /ŋ/ according to the two major dialect regions.

Figure 4.9

Distribution of Five Major Vowel variants in (ING) for the Two Major British Dialect Regions (compiled from Table 4.26)

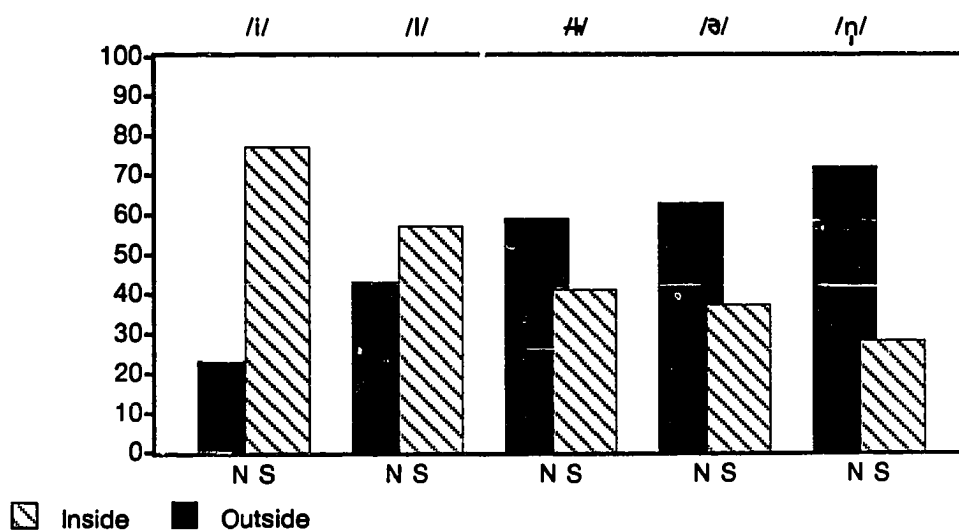


Table 4.27 below shows the probabilities for the vowel variants as run against the two major dialect regions, age and sex.

Table 4.27

**Velar Applications for Inside/Outside Dialects according to
Height of Vowel preceding Nasal**

	p	%	N
[+high] [+front] [+tense]	.97	92	141
[+high] [+front] [-tense]	.69	45	622
[+high] [-front] [-tense]	.28	11	367
[-high] [-front] [-back]	.04	1	839
Lon/Man/Bir/Esx	.58	34	903
Gla/Edn/Lds/Gat/Liv/Nor/Bri/Car	.42	14	1066
	.26	24	1969

log likelihood = -664.7029

of cells = 8

chi sq./cell = .37

Note: syllabic /n/ not included

Regardless of which dimensions vowel height is run against, the probabilities are the same, within one or two points. In examining the association of various grammatical categories with vowel variants there is some association between /l/ and nominal categories and between /ə/ and /ŋ/ with verbal categories. Yet the vowel height which shows the highest correlation to the velar nasal occurs more frequently overall in the data with verbal categories. The distribution of the major vowel variants according to grammatical group are shown below in Table 4.28.

Table 4.28

Distribution of Vowel Variants according to Grammatical Category of (ING)
in British Data

		/i/	/ɪ/	/ɪ/	/ə/	/ɪ/
A	%	1.0	26.5	6.7	1.8	1.0
	N	1/139	105/622	23/344	15/822	3/319
B	%	2.2	7.4	4.1	3.5	1.8
	N	3/139	46/622	14/344	29/822	6/319
C	%	8.6	6.9	7.0	2.8	7.2
	N	12/139	43/622	24/344	23/822	23/319
D	%	40.3	29.7	34.6	31.9	32.0
	N	56/139	185/622	119/344	262/822	102/319
E	%	47.5	47.5	47.4	58.3	56.1
	N	66/139	241/622	163/344	479/822	179/319
F	%	1.0	1.0	3.0	1.7	1.8
	N	1/139	2/622	1/344	14/822	6/319
Total	%	100	100	100	100	100
	N	139	622	344	822	319

N = 2248

(periphrastic *gonna* omitted)
minor variants excluded

- A Proper names/any/every/some/nothing
- B Monomorphemic nouns
- C Derived nominals/modifiers (+ger)
- D Gerunds/acc-ing/NP complements/non-finite participles
- E Finite participles/modifiers (+part)
- F Prepositions

The two vowel variants which show variation between G and N are /ɪ/ and /ɪ/. These are shown below in Table 4.29.

Table 4.29

Percentages of Velar Application for /l/ and #l/
for Two Major British Dialect Regions

	/l/		#l/	
	%	N	%	N
Lon/Man/Bir/Esx	53.3	(359)	17.7	(124)
Stia/Edn/Cat/Liv/Lds/Nor/Car/Dal	27.3	(263)	8.2	(220)
		622		344

With respect to the height of the vowel , there are three major observations.

(1) The overall distribution of the vowel variants is not the same; there is a difference with respect to the two major dialect regions, with the southern internal region manifesting the majority of /l/, and the northern peripheral region manifesting the majority of /ŋ/.

(2) With respect to the application of G and N, for some variants the applications were categorical (i.e. /ŋ/) or nearly categorical (i.e. /ə/ /l/). The vowel variants which showed the greatest variation between N and G also showed a difference between the two major dialect regions, with the southern internal one showing higher G values for these variants than the northern ones.

(3) Although the height of the vowel preceding the nasal is strongly correlated with the value (apical or velar) of the nasal, it has been shown to be independent of the grammatical effect. This can be seen more clearly with the two vowel variants, /l/ and #l/, which showed the greatest variation between N and G among the vowel variants. Table 4.30 shows the applications of velar G with these two variants. The category *Preposition* is not shown in Table 4.30, because N = 3 for these two vowel variants.

Table 4.30

Probability of Velar Application for the Vowel Variants /I/ and #/
according to Grammatical Category

	p	%	N
[+high] [-back]	.72	45	622
[+high] [+back]	.28	12	344
Proper names any/every/som/nothing	.90	90	128
Derived nominals Modifiers (+ger)	.45	43	67
Monomorphemic nouns	.43	47	60
Gerunds Acc-ing NP complements Non-finite participles	.25	25	304
Finite participles Modifiers (+part)	.17	18	404
input prob.	.39	33	963

log likelihood = -440.0545
chi sq./cell = .6
of cells = 42

prepositions, N = 3, omitted

The issue of vowel and following nasal will be taken up again in Chapter Six in the discussion of the mechanisms of the replacement of *-Ind* with *-Ing*.

4.7 Characterizing (ING) for Different Dialects.

The presence of the fanning effect observed between the northern peripheral and southern internal dialects raises the question of whether the conditions on the velar application of (ING) are the same for these regions. Labov (1972) showed that the ordering of constraints on t/d deletion among young black males in New York City was different for two socially defined groups, peer groups and lames. (see Chapter One)

Nearly all the British speakers used in this study are working class, and the overall application of G is much lower than applications reported for higher social classes. (Woods 1979), (Trudgill 1974). The general grammatical effect was observed for all the British

speech communities in this study. The question is to determine whether the relative weights and ordering of the conditions on G (or conversely on N) can be characterized as the same or different for the two major dialect areas.

Table 4.31 below shows the grammatical effect for the inside dialects. This was run against age, and sex. Sex was significant at .001, but deleting it improved the overall fit. The improvement of fit, (chi sq./cell = .83) resulting from deleting sex, is due to the fact that one female speaker in the inside dialect region showed a lower application of G than other female speakers. This speaker is an elderly woman from Essex who received very little education. She showed a lower percentage of G than her husband.

Table 4.31
Velar Applications of (ING) for Inside Dialects

	p	%	N
Proper names any/every/som/nothing	.95	88	102
Derived nominals Modifiers (+ger)	.51	39	36
Monomorphemic nouns Gerunds Acc-ing	.56	44	50
NP complements Non-finite participles	.40	29	302
Finite participles Modifiers (+part)	.31	19	497
Prepositions	.11	14	14
10-17	.59	32	411
18-34	.50	22	321
35-55	.27	21	28
+56	.65	42	241
input prob.	.34	31	1001

log likelihood = -484.1010

The grammatical effect is quite regular for these data. Table 4.32 below shows the probabilities for these same dimensions for the outside dialects.

Table 4.32

Velar Applications of (ING) for Outside Dialects

	p	%	N
Proper names any/every/som/nothing	.93	74	47
Derived nominals Modifiers (+ger)	.66	31	91
Monomorphemic nouns	.44	16	49
Gerunds Acc-ing			
NP complements Non-finite participles	.29	9	433
Finite participles Modifiers (+part)	.23	6	732
Prepositions	.27	10	10
10-17	.47	9	506
18-34	.36	5	208
35-55	.79	23	213
+56	.34	12	435
input prob.	.11	11	1362

log likelihood = -351.9680

Unlike the situation with the southern dialects, sex showed a completely regular pattern for the north. (The Essex data showed a lower percentage of application of G for females, than it did for males. This was the only reverse pattern found for sex, however.)

The grammatical effect can be observed for both regions from Tables 4.31 and 4.32.

Table 4.33

**Comparison of Probabilities of Velar Application according to Grammatical Category
for Inside and Outside Dialect Regions**

	Inside	Outside
Proper names any/every/som/nothing	.95	.93
Derived nominals Modifiers (+ger)	.51	.66
Monomorphemic nouns	.56	.44
Gerunds Acc-ing NP complements		
Non-finite participles	.40	.29
Finite participles Modifiers (+part)	.31	.23
Prepositions	.11	.27
input prob.	.34	.11

Table 4.33 shows that the relative rankings of major grammatical groups are similar. Even though the outside dialect regions show monomorphemic nouns to disfavor velar applications of (ING), in contrast to the probability shown for the inside regions, the relative ranking of monomorphemic nouns in relation to other grammatical groups is similar for both regions.

With respect to other dimensions, i.e vowel height and preceding and following phonological environments, the ordering of conditions favoring G is quite similar for both inside and outside regions.. The following tables are based on two analysis, one for the inside dialects, one for the outsides ones in which vowel height was run against preceding and following phonological environments and against grammatical category.

Table 4.34

Comparison of Probabilities of Velar Application for Vowel Height
for Inside and Outside Dialect Regions

	Inside			Outside		
	p	%	N	p	%	N
+high -back +tense	.99	93	103	.99	89	38
+high -back -tense	.63	51	359	.73	37	263
+high +back -tense	.20	17	138	.23	8	229
-high +back	.02	3	361	.01	1	797
input prob.	.48	32	961	.35	12	1327
log likelihood =	-262.9477			log likelihood = -198.2025		
# of cells =	373			# of cells = 412		
chi sq./cell =	1.22			chi sq./cell = .95		

(Note: syllabics were included with schwa. Although syllabics are actually a knock-out factor (8), they did not change the probabilities for schwa more than one point for either dialect region, since schwa also heavily favors N).

Table 4.35

Comparison of Probabilities of Velar Application for Preceding Phonological Environment for Inside and Outside Dialect Regions

	Inside			Outside		
	p	%	N	p	%	N
+cons +ant	.70	33	239	.53	12	328
-cons -voc	.68	23	203	.58	9	275
+cons +voc	.61	37	101	.57	25	114
+cons +cont	.27	48	191	.49	22	213
+cons +velar	.26	25	227	.34	4	397
input prob.	.48	32	961	.35	12	1327

The effects of preceding environment show the same basic ranking for both regions, with the same factors favoring the application of G. For both dialects the continuants show a high percentage and a low probability. The high percentage is due to the association of continuants with the high G nominal compounds *every/anything*. The preceding environment for these is /θ/. If preceding environment is run without grammatical category, the probability velar application of the continuants goes up significantly.

Table 4.36

Comparison of Probabilities of Velar Application for Following Phonological Environment for Inside and Outside Dialect Regions

	Inside			Outside		
	p	%	N	p	%	N
+cons +velar	.76	32	37	.83	47	34
+cont +velar	.65	29	7	.61	20	30
+cons +voc	.59	35	34	.62	20	44
+cons +ant	.44	32	165	.49	7	246
+cons +cont	.48	34	173	.43	11	240
pause	.39	41	160	.41	21	183
-cons -voc	.32	37	46	.31	9	95
-cons +voc	.34	24	339	.26	7	455
input prob.	.48	32	961	.35	12	1327

Table 4.36 shows very similar effects for both the inside and outside dialect regions according to following phonological environment. From the preceding tables it would therefore seem reasonable to assume that, with respect to the conditions favoring G, both regions are the same. The essential difference is the difference between the verbal grammatical categories.

4.7.1 The Southern American Pattern

With the exception of the differences discussed above, the general pattern for all the British dialects examined in this study is the same, there is a general association of nominal categories with G and verbal categories with N. Without specifying each category in detail, there are no major reverse patterns of conditions on the application of variants for (ING).

The American southern pattern of (ING) shows some differences when compared to the British one. The probabilities of velar G for the Atlanta and Texas speakers are shown below in Table 4.37 according to grammatical category.

Table 4.37

Probabilities of Velar Application for American Southern Dialects
according to Grammatical Category

	p	%	N
every/anything	1.00	99	90
derived nominals	.74	25	12
monomorphemics	.70	25	20
gerunds			
acc-ing			
NP complements	.21	6	124
appositives			
reduced relative clauses			
verb phrase complements	.18	6	72
progressives			
quasi-progressives			
periphrastic future			
modifiers (+part)	.09	2	326
some/nothing	.03	1	102
West Texas	.76	19	157
Atlanta, Georgia	.24	15	589
input prob.	.22	16	746

log likelihood = -94.7599
of cells = 14
chi sq./cell = .46

Knockout Categories - 0% G variant

Proper names 0/6
Prepositions 0/10
Modifiers (+ger) 0/13

Table 4.37 shows a striking difference between the nominal compounds with *anything* and *everything* showing a very high velar application and *nothing* and *something* showing a very low one. This is in sharp contrast to the patterns reported for the British data. Although there is some pattern shown above along a nominal-verbal continuum, proper names (N = 6) were a knock-out factor showing 0% application of G.

From the preceding set of observations it can be seen that the grammatical effect observed for the British dialects is also manifested in the corpus of American southern speech represented in this study, with several exceptions. Table 4.38 contrasts the

probabilities for grammatical categories for both the southern American speech and British speech.

Table 4.38
Comparison of Velar Applications according to Grammatical Category
for British and Southern American (ING) Data

	American		British	
	%	N	%	N
every/anything	99	89/90	95	53/56
derived nominals	25	3/12	32	23/72
monomorphemics	25	5/20	30	30/99
gerunds acc-ing				
NP complements	6	7/124	17.5	67/393
appositives reduced relative clauses				
verb phrase complements	6	4/72	17.5	60/342
progressives quasi-progressives periphrastic future modifiers (+part)	2	8/326	11.1	136/1229
some/nothing	1	1/102	80	53/66
Proper names	0	0/6	70	19/27
Modifiers (+ger)	0	0/13	34.6	11/55
Prepositions	0	0/10	12.5	3/24
		775		2363

Table 4.39

**Comparison of Velar Application according to Vowel Height
for Southern American and British (ING) Data**

American			
	p	%	N
+high -back +tense	.74	33	24
-tense	.28	4	497
input prob.	.16	5	521
syllabic /n/ omitted			

British			
	p	%	N
+high -back +tense	.99	92	141
+high -back -tense	.72	45	622
+high +back -tense	.28	12	344
-high -back -tense	.18	9	23
-high +back -tense	.04	1	839
input prob.	.34	24	1969
syllabic /n/ omitted			

In contrast to the British corpus, the American sample does not show a significant difference between lax vowels, whether high, front or centralized. In other words the British data maintains more significant distinctions among values of the vowel variant for (ING) than do the American southern data. (9)

Table 4.40

Comparison of Velar Application according to Preceding Phonological Environment for Southern American and British (ING) Data

		American			
		p	%	N	
+cons	+ant	.78	14	123	
	liquid	.42	3	61	
+cons	-ant	.41	22	426	
	glide	.36	1	159	
input prob.		.13	15	769	/n/ and / / combined

log likelihood = -94.8224
 # of cells = 24
 chi sq./cell = .46

		British			
		p	%	N	
	liquid	.61	31	215	
+cons	+ant	.51	21	567	
	glide	.49	15	478	
+cons	-ant	.40	20	1028	
input prob.		.33	20	2288	/n/ and / / combined

log likelihood = -939.1697
 # of cells = 171
 chi sq./cell = 1.09

For both the British and American data the percentage of non-apical consonants is ranked higher than the corresponding probabilities. For both dialects preceding environment was run against grammar; the continuants, which were not significantly different from the non-apical stops in probabilities and percentage contribute to the higher percentage of velar application. This is because continuants provide the preceding environment for the compounds *every/anything*, which have been shown to exhibit a high application of velar G. Without the dimension of grammar, the probabilities for preceding continuants is around .80.

Table 4.41

**Comparison of Velar Application for Following Phonological Environment
for Southern American and British (ING) Data**

American

	p	%	N
pause	.75	30	162
+cons +ant	.55	12	270
liquid	.49	14	36
vowel	.46	11	210
glide	.45	10	49
+cons -ant	.29	5	42
input prob.	.05	15	769

log likelihood = -280.8654
of cells = 24
chi sq./cell = .52

British

	p	%	N
+cons -ant	.77	55	71
pause	.55	30	343
+cons +ant	.49	19	824
glide	.44	18	141
liquid	.43	27	78
+cont +ant	.40	22	37
vowel	.39	14	794
input prob.	.33	20	2288

log likelihood = -939.1697
of cells = 171
chi sq./cell = 1.09

Table 4.42

Comparison of Velar Application according to Syntactic Position of Gerunds
for Southern American and British (ING) Data

	American		British		
	p	N	p	N	
subject position	.71	20	.60	62	
objectposition oblique position	.29	87	.40	256	
West Texas	.71	20	.65	126	Inside dialects
Atlanta	.29	87	.35	192	Outside dialects
input prob.	.07	107	.22	318	
# of cells =	4		4		
chi sq./cell =	1.05		.44		

Although combining object and oblique positions for the American data did not result in a significant difference in log likelihood, the resulting fit is slightly worse than before, chi square going from .71 to 1.05 per cell.

The above results support the possibility for writing a variable rule which would encompass both the British and American speakers, a general rule for (ING). Yet there are important differences in the ordering of some of the grammatical categories as shown in Table 4.38. My view is that the southern American speakers should be viewed as not being subject to the grammatical effect, given that these data are not consistent with the nominal-verbal continuum. The social and geographical distance of these speakers from the original demarcation between *-ing* and *-ind* may account for this in part. This issue will be taken up again in Chapter Six.

Both British and American data show the effect of regressive assimilation, both show similar effects of a high, tensed vowel preceding the nasal. Yet the southern Americans do not indicate that the frontness of the vowel favors G. Only the feature of tenseness appears relevant. With respect to the following environment, the American data

do not show any effect of progressive dissimilation, shown for the British data and reported for more northern American systems, (Cofer 1972), (Shuy, Wolfram and Riley 1968).

The grammatical effect is manifested not as the difference between a morphemic boundary or not (as observed in the case of t/d deletion), but rather along a nominal-verbal continuum.

The differences shown above between the British and southern American patterns for (ING) illustrate that, although this variable has been observed throughout the world and appears to be very stable, there are dialectal differences with respect to the conditioning factors, in particular the grammatical conditioning. I would not characterize this difference as one between British and American speech, since the grammatical effect has been reported for northern American speech, (see Chapter Two). In fact, it may well be that southern American speech is fairly unique in this respect. The answer to this question remains for future research.

4.8 Summary

In this chapter the presence of a strong grammatical effect conditioning the realization of the (ING) variable was established. This effect was shown to be gradient in nature. In addition it was shown that this effect was not reducible to other non-grammatical conditions, although the grammatical effect did show sensitivity to an historically-based geographical demarcation in Britain. The existence of a gradient grammatical effect raised the issue of the appropriate representation of this within the grammar, since it was assumed to be part of a speaker's competence. The non-discrete, linear continua postulated by Ross (1972), (1973) were argued to be more suitable as a model of these observations than the discrete syntactic feature matrices of Chomsky (1970) or adopted in Radford (1981). In the next chapter the historical origins of modern (ING) are examined.

Footnotes

1. Trudgill and Hughes (1979) does report on urban speech communities around Britain, but gives only single variants of (ING) for each community.
2. The vowel preceding the nasal had a number of variant spellings, the greatest contrasts occurring between geographical regions: the three major variants are <and> in the north, <ende> in the midlands, <ind> in the south.
3. Sex showed a regular pattern for grammatical groupings and the two major dialect regions, with men showing an expected higher overall application of G.

	%			%	
	Men	Women		Men	Women
names/any/every/no/something	82	87	Ldn/Man/Bir/Esx	27	36
derived nominals/adj. mod. (+ger)	26	47	Liv/Nor/Gts/Gla/ Edn/Car/Bri/Lds	10	15
monomorphemics	30	30			
gerunds/non-finite participles	15	23	N	1561	802
finite participles/modifiers (+part.)	7	18			
prepositions	13	13			
N	1561	802			

However the distribution of G according to age and sex shows a differne pattern, with the older women showing less G than the younger women, and the older men showing more G than the younger men.

	%	
	Men	Women
under 35	12	28
over 35	22	24
N	1561	802

There is not a significant difference between the older males and females, chi square = .7723. However the difference between the younger males and females is significant at .001, chi square = 57.2554. An older Essex woman showed a notably lower percentage of G than the other females.

4. Wasow and Roeper attempt to set this up as a categorical condition, but Ross points out that in fact this condition is not discrete, but again a squishy effect.

5. Gerunds in predicate position were included with subject position.

one sport I didn't take in too much was *swimming*. (G.J. Glasgow A697, 603)

They patterned similarly to subject position both in terms of their control types and their velar applications. Applications of G for gerunds in subject position = 18/64, 28%. Applications of G for gerunds in predicate position = 8/28, 29%.

6. In nearly every example of reduced relatives with subject control, the sentence exhibited there-insertion.

7. Notice the similarity between (4.8) and (4.9) in terms of the existential assertion in both examples. In (4.8) *there* is followed by the copula, making the following NP the understood subject of the sentence, whereas in (4.9) *you had* has essentially the same assertional force as *there*, although the following NP is an object, because the preceding verb is transitive. At least these are the only analyses I am aware of in current syntactic literature.

(4.9) is more colloquial than (4.8), and the contrast between these parallels the contrast reported by Labov and Weiner (1975) for the use of *they* to convey passive meaning. e.g. *they broke it* versus *it was broken*. In the case of both *they* and *you* of example (4.9), no specific referent is intended, they serve a dummy function similar to that for dummy *it* and dummy *there*. The difference retained is active voice.

I can't help but speculate whether either the transitivity of (4.9) or the intransitivity of (4.8) is contaminated by the association between these types of constructions, although the answer to this is in need of further investigation.

8. A knock-out factor is one which has either 100% application of a variable or 0% application. In either case, the algorithm for the variable rule analysis will divide by zero, and for this reason such knock-out factors must be either deleted or combined with other non-categorical factors.

9. The phonetic values of the vowel preceding the nasal are not identical for the British and American speakers, since the vowel systems are not the same. The values shown in Table 4.34 reflect the relative values of the variants with respect to each system.

5.0 The Morphological History of -ING

5.1 Introduction

In this chapter I will discuss the historical data which provide the basis of the diachronic analysis of this study. I will discuss both the distributions of *-ing* as it occurs in a range of constructions found in the fifteenth through the nineteenth century data, as well as the historical origins of *-ing* for each of these constructions. In addition, the orthographic variants are discussed in terms of their correlation to the morphological status of *-ing*. The purpose behind all this is to establish the linguistic mechanisms by which separate, invariant morphological forms became merged as a single form, whose present-day variability still reflects the grammatical differences between the original morphemes.

The data collected for this study are for the most part representative of English at a time when the present participle no longer retains its original form in <nd>. (One exception is data from the Miracle Plays, (Chapter Six, Section 6.4.1). Because of this, I have included data (N = 1801) from an earlier study on *-ing* (Irwin 1967) which presents data from early ninth century English down through the end of the fifteenth century.

These data represent every instance of *-ing* taken from specific corpora; in that respect the methodology is comparable to the present study's. Irwin's data are useful in two ways. The earliest data illustrate the gradual replacement of the Old English feminine verbal noun suffix *-ung* by *-ing*, (see chapter Four), as well as the loss of gender distinction in the thirteenth century between the masculine nouns with *-ing* and the feminine verbal nouns. Her data also illustrate the replacement of the present participle's suffix *-ind* with *-ing* during the fifteenth century in the Midlands.

5.2 Morphological and Syntactic Distributions from an Historical Perspective

In the following sections (5.3 – 5.8) I will discuss the distribution of *-ing* constructions from the early fifteenth through the late nineteenth century. The discussion is organized around the original three morphemes which have merged into the modern day (ING). (1) These morphemes are the Old English masculine derivational suffix {ing}, the Old English feminine derivational suffix {ung} and the present participial inflectional suffix {ind}. The syntactic features of the modern day constructions have been discussed in Chapters Three and Four. In Chapter Six I will discuss what I call the *realignment* of the suffix (to be distinguished from *re-analysis* as defined by Lightfoot (1979) in terms of how the nominal/verbal dichotomy is drawn for contemporary English, in contrast to late Middle and early Modern English.

For the materials from the fifteenth to the nineteenth century, a total of 2329 tokens were collected. The distributions discussed in the following sections (5.3 – 5.8) express the relative frequencies of each form occurring with *-ing* by century. Because it has been established that the progressive increased significantly in the language during the nineteenth century, (Arnaud 1973). I did not include the progressives in these distributions. The progressives are shown by themselves afterwards. The main reason for including these distributions is to illustrate the expansion of the verbal function of *-ing* across time. One way this is manifested is through the rise of the progressive, but several lesser trends of increased verbal use can also be seen in the data below, e.g., verb phrase and sentential complements, quasi-progressives. Also the more verbal constructions with gerunds, e.g., Acc-*ing* constructions show an increase over time. (See Section 5.5.7.).

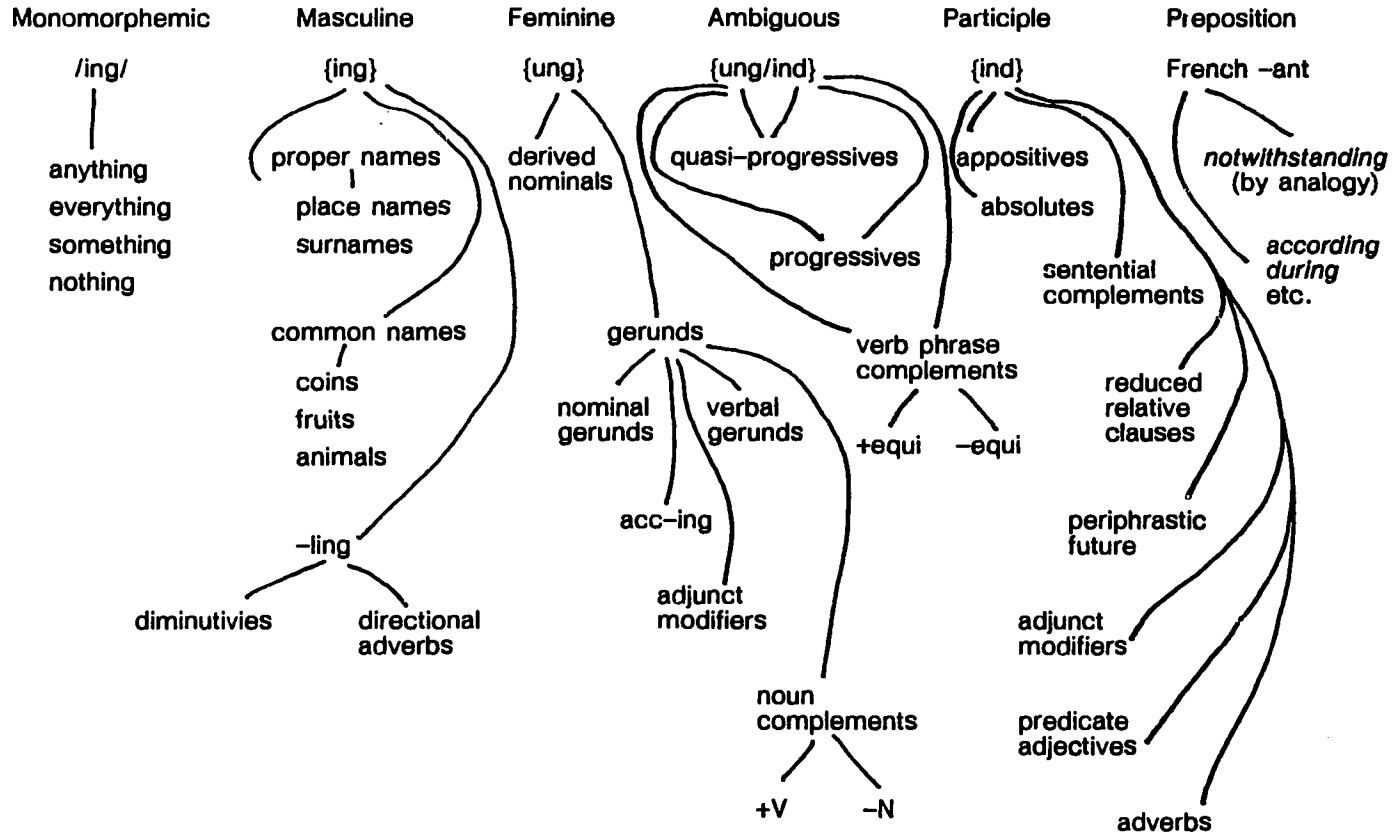
In addition to the prose data, I have included a small sample of dramatic verse, collected from a number of the Miracle Plays. These data are useful in that the original participial suffix is still preserved in some cases, and provides a point of comparison with

the later data in which the original spelling distinctions between verbal nouns and participles is no longer present.

The task of classifying historical *-ing* data is complicated by the fact that the range of constructions in modern English which occur with (ING) has not remained constant over time, either in terms of relative frequency or in terms of orthographic form. There is the further problem that, after the loss of distinction between the participial suffix and that of the verbal noun, there are some structures which are potentially ambiguous as to whether the occurring form is a participle or a verbal noun. These cases are discussed below in Section 5.7. Much of the following discussion in this chapter draws on examples cited in Visser (1973), Marchand 1969), and the Oxford English Dictionary (1908).

The following diagram schematizes the discussion following in Sections 5.3 – 5.8. The discussion traverses the diagram from left to right.

Figure 5.1
The Morphological Origins of Modern (ING)



5.3 Non-monomorphemic -ING

The only words of an historically monomorphemic origin which are of concern to this study are the words *everything*, *anything*, *nothing* and *something*. Today these words are compounds, but in Old English they occurred as separate forms, e.g. *sum þing*. Their relevance to this study is that as compounds, the stress on *thing* is no longer primary, and thus becomes relevant to (ING) defined as unstressed *-ing*, (Labov 1972). *Thing* is common to Old English, Old Norse and Old High German (OED). Originally it had the sense of an assembly or a legal process. In the thirteenth century it acquired the sense of *that which is said* (OED), and in the seventeenth century, *that which exists*, (OED). These later meanings have been preserved in the compounds today.

5.3.1 Everything

In Old English this form occurred as two separate words, the earliest example of a compound cited by the OED from the fourteenth century in Chaucer, (OED). (2) The current contrast in stress between expressions such as *everything that was there* and *every thing that was there* suggests that the compounding of *every* and *thing* did cause a loss of primary stress on *thing*. There is evidence that this pattern was extended to other forms besides *every + thing*, *everywhere* (12th cent.) *everyone* and *everybody* (14th cent.) and even *everywhen*, (1862), (OED).

euerything (c.1385 Chaucer)

euery thyng (c.1440 Generydes & Wyse)

Every thing (1672 Wilkins)

everything (1681 Dryden)

These examples illustrate that the forms occurred variably over time as either separate forms or compounds.

5.3.2 Anything

This occurs as two separate forms in Old English, (OED). The compound *anything* is first attested in the early fifteenth century, (OED). The pattern includes *anybody* and *anywhere* (13th c.), *anyhow* (18th c.).

aeniz þing (c.1000 Ags. Gosp.)

ei þing (c.1230 Ancr. R.)

eny-þinge (1370 Wyclif)

anythyng (c.1400 Dest. Troy)

any thyng (1542 Udall)

any thing (1611 Bible)

anything (1677 Yarranton)

The examples above illustrate the variation between the compound and separate forms, as well as the use of hyphens as a third alternate, suggesting some sense of unity between the separate forms.

5.3.3 Nothing

The expression as separate forms is found in Old English and is cited as a single form first in the thirteenth century, (OED).

nan þing (c.888 Aelfred)

nanes binges (c.1000 Ags. Gosp.)

naþing (c.1200 Vices & Virtues)

na þing (c.1225 Leg. Kath.)

na-thynge (c.1375 Sr. Geg.)

nothing (1456 Sir G. Heye)

na thing (1508 Kennedie)

naything (1596)

These examples again illustrate the maintenance of the separate forms even after the appearance of the compound.

5.3.4 Something

This compound originally occurred as two forms in Old English, and is attested as a single form first towards the end of the sixteenth century, (OED).

sum þinge (c.1000 Ags. Gosp.)

summ þing (c1200 Ormin.)

Sum-thing (c.1300 Cursor M.)

Somþing (1340 Ayenb.)

Sum thing (1382 Wyclif)

sum thing (1503 Dunbar)

some thing (1594 T.B.)

something (1601 Shak.)

something (1681 Dryden)

5.4 The Masculine Derivational Suffix {ING}

This suffix dates back to earliest Old English (OED), and has parallels in other Germanic languages as well; Old High German *-ing*, Old Norse *-Ingr* and *-ungr*. In Old English it could combine with either substantives, or adjectives to derive concrete nouns denoting *one belonging to, kind of* or *one descended from*.

For example, the adjective *earn* = 'miserable' could form *earn+ing* = 'wretch', *brent* meaning 'high' could combine with *-ing* to form *brent+ing* = 'ship'. Although the semantics may be somewhat obscure to us, the idea is *a high one, or a kind of thing which is high*.

The masculine gender in Old English required the following case marking:

	<u>Singular</u>	<u>Plural</u>
nom.	brenting	brentingas
gen.	brentinges	brentinga
acc.	brentinge	brentingas
dat.	brentinge	brentingum

5.4.1 Proper Names

Proper names combined with the masculine suffix to indicate the relationship of *descended from* as in *Woden+ing* = 'son of Woden', or *Aethelwulf+inge* = 'son of 'Aethelwulf'. The suffix could combine with placenames to indicate association with the

place as in *Cent+ing+as* meaning 'men of Kent' and *Read+ing+es* meaning 'men of Read' which today survives as the name *Reading*. For the historical data from the fifteenth through the nineteenth centuries examples of proper names, both placenames and surnames, are shown below.

(5.1) and the manerys of *Merlyngforthe*,
(Paston Letters , p. 41, vol.1) c.1440

(5.2) *Lokyngton*
(Cely Papers, p. 27) c.1450

Other placenames and surnames found in the data include: *Gymmyngham*, *Edyngthorp*, *Bokyngham*, (Buckingham), *Kentyng* (Kent), *Pampyng*, *Harrington*, and *Lockyngton*. Weekly (1916) suggests that placenames with *-ing* contain the meaning of *meadow* because he states that *-ing* also meant *meadow* in Middle English. Without providing concrete evidence he points to names such as *Greening*, *Beeching*, *Fielding* and *Wilding* where an association between *meadow* and the first element of the name, (green, beech, field, wild) is reasonably transparent. Yet the existence of *-ing* as a tribal suffix in early Old English, carrying the meaning *descended from* or *belonging to* is more frequently assumed, (OED), (Anglo-Saxon Dictionary).

In the following table the distribution of proper names for my sample across five centuries is given.

Table 5.1
Relative Frequency of Proper Names with *-ing*
15th – 19th Centuries

	15th	16th	17th	18th	19th	
%	9.4	1.7	9.5	4.5	.9	
N	732	240	504	240	431	N = 2147

progressives omitted

The percentages for each century represent the relative frequency of proper names as compared to the frequencies of other forms in *-ing* for that same century, omitting the progressives, as mentioned before. There is no discernible trend over time involving this distribution, and there is no obvious reason why there should be. However, other categories will show either to have increases or decreases over time, relative to other forms with *-ing*.

5.4.2 Forms derived with *-LING*

This suffix should be mentioned because there are at least two forms surviving in modern English which, although monomorphemic today, were originally derived. I refer to *dumpling* and *darling*. Because these forms occur only in the synchronic data that I collected, there is no table given here for historical distribution. The suffixal form *-ling* is common to the Germanic languages, Middle Low German and Middle Dutch having *-ling(e)*, Friesian *-lings*, Old Norse *-lingr* and Gothic *-liggs*, (OED). *Darling* was originally formed from the Old English adjective *deor* + *-ling*, and *dumpling* was formed from the adjective *dump* meaning *short and stout* at a much later date, (18th century), (OED).

In Old English this suffix was also an adverb of direction, later expanding in connotations. Among the earliest uses are found *baecling* = 'on or towards the ground' (OED) and *grundlinge* = 'to the ground', (OED). Both *baec* and *grund* existed in contrast

to the forms above in Old English. (An interesting backformation from Middle English *groveling* is *grovel* (16th c. Shakespeare) formed on the pattern *suckling* : *suckle*).

5.4.3 Common Nouns

Other senses in which this suffix could be used include names of coins as in *penning* and *shilling*. *Farthing* has a known derivation, combining the form *feortha* meaning *fourth* with the masculine suffix. *Shilling*, on the other hand is found only as a single form in Old English, (OED). The origins of *shilling* are widely disputed, (OED). There is some question as to whether it was monomorphemic in Old English, or derived as *farthing*. The status of *penning* as being either monomorphemic or derived is also uncertain. The existence of a semantic class denoting types of currency suggests that *shilling* and *penning* were derived at an earlier time, but contrastive forms of *scil* and *pen* were no longer in the language. *Penning* develops into first *penig* in early Middle English, then later *peni* in late Middle English, (OED). With the exception of *shilling* these forms did not occur in my historical data.

There was a further use of the masculine ending with names of animals and fruits. Ones which have survived include *herring*, *whiting*, *gelding* (the last is from Old Norse). Others no longer current include *bunting* (a kind of small bird), *sweeting* (a fruit) *biffin* (beefing). These nouns were derived by suffixing the *-ing* suffix to adjectives, e.g. *sweet*, *white*, or other nouns. These derived nouns expressed the masculine case markings.

5.5 The Feminine Derivational Suffix {UNG}

5.5.1 Words which are Monomorphemic in Modern English

There is a small set of words which were originally derived, but have become monomorphemic in Modern English. Among these is the frequently occurring expression *evening*.

5.5.1.1 Evening/Morning

Evening was originally a verbal noun in Old English, *aefnung* formed from the Class II weak verb *aefnian*, 'to grow towards night'. (Stem = *aefn*) Although it was derived as a verbal noun, I have found no examples in my data, nor cited by Irwin (1967) of *evening* occurring with the properties of gerunds, e.g. taking either oblique or direct objects. In modern English it has become monomorphemic, the original verb having become obsolete. In Old English *morning* was originally *morgen* and later in Middle English (c.1250) *morwenige*. Later developments in Middle English include: *morzen*, *morwen*; *morun*, *moren*, *morn*; and *morwe*, *moru*, *morrow*, (OED). From *morn* by analogy to *evening* the form *morn* + *ing* developed.

5.5.1.2 Ceiling

This form is attested first in the fourteenth century (OED), and referred to the lining of a roof or walls. It had a nautical sense as well, referring to the inside planking of a ship's bottom. Although there is no contrastive verb in modern English *to ceil*. Skeat (1927) states that such a verb did exist in Middle English. In the table below the distributions for words which have become monomorphemic in Modern English are shown, excluding proper names and the compounds formed with *thing*. The justification for this was twofold; first I did not find contrastive forms to these items in my data, e.g. no contrastive forms to *shilling*, *farthing* or *evening* (suffixal derivatives are opposable to their unsuffixed bases, and to other derivatives containing the same dependent morpheme (Marchand 1969), and second, grouping the data in this way makes it easier to make comparisons between the historical and the synchronic data.

Table 5.2
Distribution of Monomorphemic Nouns with *-ing*
15th – 19th Centuries

	15th	16th	17th	18th	19th	
%	3.6	0.4	3.8	4.2	1.4	
N	732	240	504	240	431	N = 2147

progressives omitted

The above figures refer only to cases of unstressed *-ing*. (Note: In the earliest data examined for this study (Irwin 1967) I found no instances of final *g* dropped from monomorphemic, monosyllabic words, e.g. I did not find *thing* spelled <thin>).

Table 5.2 shows that although these monomorphemic nouns have contributed only a small proportion of *-ing* examples to each century, they appear to have maintained themselves over time. It should be pointed out, though, that the majority of these examples consist of time expressions such as *morning* and *evening*.

(5.3) Heard this *morning* as if Carr and his Scotch forces were routed by our Horse.

(Diary of Ralph Jossalin, p.79) 1666

(5.4) Tryed 6 Soldiers for being drunk on Duty and one of the Light Company for Damning Congress at *evening*.

(Diary of Jeremiah Greenman, p.223) 1775

5.5.2 Derived Concrete Nouns

Until about 1250 (Irwin 1967), (Moore 1963) the case system of Old English distinguished the masculine nouns derived with *-ing* from the feminine verbal nouns derived with *-ung*. The feminine verbal nouns were formed by adding *-ung* to the verb stems of Class 1 weak verbs in Old English. From the stem *hael* 'to heal' it was possible to form the

verbal noun *hael + ung* meaning *the act of healing*. Class II weak nouns are distinguished in Old English from Class I weak verbs by their forms in the infinitive; Class I take *-an*, and Class II take *-ian*. The *-i* stem is retained in the formation of verbal nouns from Class II verbs, which results in this suffix appearing either as <-iung> or <-ing>. For example Irwin (1967) cites an instance of the verbal noun for a Class II weak verb *hergian* = 'to plunder' as *hergiung* (10th century). Corresponding forms to *-ung* are found in most of the Germanic languages, Old Saxon *-unga*, Old Friesian *-ungelinge/enge*, Middle Low German *-inge*, Old High German *-unga*, and Old Norse *-ung*. A corresponding form is not found for Gothic, nor does this suffix appear to exist outside Germanic, (Marchand 1969), (OED). What is important is that *-ing* and *-ung* were at one time in partial opposition to each other with respect to the case system, with *-ung* eventually becoming supplanted by *-ing*. Below are the strong feminine case markings for *-ung*, and the strong masculine case markings for *-ing*.

	Singular				Plural			
	nom	acc	gen	dat/inst	nom	acc	gen	dat/inst
-ung	ung	unge	unge	unge	unga	unga	unga	ungam
-ing	ing	ing	inges	inge	ingas	ingas	inga	ingum

(Note: The Feminine accusative, genitive, and dative/instrumental singular forms are also found ending in *-a*, (Irwin 1967)).

Derived nouns which denote concrete objects exist in modern English, many of these are not attested until the nineteenth century. Others have been cited as early as the thirteenth century, (OED). Marchand states that

"the semantic shades with which -ing forms words have existed from the earliest periods of the language though the center of semantic gravitation has considerably changed." (Marchand 1969).

In general the modern-day derived nominals refer to concrete objects. Some of these fall into interesting circumscribed semantic domains: construction terms, and clothing terms; The following items are not intended to be exhaustive, however.

5.5.2.1 Building

As a derived noun, this form stands in contrast to forms such as *buildings* on the one hand, and to forms such as *roofing* and *tiling* on the other. It is a derivation resulting from the addition of the suffix *-ing* to the verbal root *build*. The earliest examples of this form are attested in 1297 (Robert of Gloucester, 271, OED) and 1340 (Cursor Mundi, 1774, OED).

5.5.2.2 Roofing

The earliest example of this form as a concrete derived noun is found in 1440 (Pallad. on Husbandry 1,383 Bodlian MSS., OED) '*And lete hem drie er...rovyng [be] sette uppon, lest all be shent.*' Unlike *building*, there are no attested instances of *roofings* in contrast to *roofing*. The meaning denotes the material substance, rather than the object, usually denoted by the zero derivative *roof*.

5.5.2.3 Tiling

1526 is the earliest attested date for this form. *They went up, and lett hym doune thorowe the tylynge* (Tindale Luke v.19, OED). *Tiling* behaves like *building* in that it stands in opposition to the form *tilings*, and denotes objects, rather than a material substance.

5.5.2.4 Caulking

This form is not attested in the Oxford English Dictionary as a derived noun, but as a verbal substantive or attributive. Yet native speakers of English accept it as referring to the

material substance. The earliest attested form is a verbal substantive is c.1481–90. *To the Spanyard for Kalkyng iijid.* (Howard Housch Bks. (1841) 70, OED)

5.5.2.5 Railing

The OED cites this form in 1471, *Pro factura lxiiij rod del Ralyng*, (Durham Acc. Rolls (Surtees) 94.

5.5.2.6 Shelving

The earliest example cited is from 1844, *The best shelving for a milk-house is marble*, (H. Stephens BK. Farm I, 214, OED). This form is a mass noun, not occurring in opposition to **shelvings*.

5.5.2.7 Plumbing

The earliest example cited is from 1756, *As soon as you enter Paris, you will be stopt in our chaise, and your pass and plumbings, and every corner of the whole chaise will be examined*, (Nugent Gr. Tour France IV 33, OED). There is no longer an opposition in modern English between *plumbings* and *plumbing*, the form occurring only in the singular.

5.5.2.8 Clothing

This form is found as early as 1275, (Layamon's Brut 3187, OED) in a collective sense. No examples were cited of this form occurring in the plural.

5.5.2.9 Lining

This form is attested in 1401–2, *In...factura...trium casularum cum lynynges*, (Durham Acc, Rolls (Surtees), 393, OED).

5.5.2.10 Hemming

The earliest example of this is taken from The Early English Psalters, *Doghtres of kinges...In glitterand gilted hemminges*, (c1300 xiiv. 14 [xiv. 13], OED).

5.5.2.11 Embroidering

1548 is the earliest attested instance of this form, *They go with brode & gorgiouse imbroideringes*, (Udall, etc. tr. Erasm. Paraphrase Matt., 106,6, OED).

5.5.2.12 Stitching

1562 is the earliest attested instance of this form, (J. Heywood Prov. & Epigr. (1867) 179, OED).

5.5.2.13 Sewing

The earliest attested instance of this form is from c1400, *& thanne bynde þe nose wiþ two bandis...þe topir schal be leid avoue þat he mowe kepe þe plumaciols, poudre, & besowyngē*, Lanfranc's Cirugie 148, (OED).

The summary of these two semantic classes, construction and garment terminology, and their earliest cited examples is given below.

Construction

Garment

building (1297)

clothing (1275)

roofing (1440)

sewing (c.1400)

railing (1471)

lining (1401-2)

tiling (1526)

hemming (1300)

caulking (not given)

embroidering (1548)

shelving (1844)

stiching (1562)

plumbing (1756)

5.5.3 Derived Forms in the Diachronic Data

Among the most commonly occurring forms found in the historical data which exhibit both nominal and concrete characteristics are: *shipping*, *blessing* and *tidings*. Other less frequently occurring forms include: *lodging*, *writing*, *cunning*, *beginning* and *swelling*. The terms *shipping*, *lodging*, *writing* and *swelling* occurred in contexts which made it clear that physical objects were denoted. In other contexts *writing* occurs as a process. the terms *blessing* and *tidings* also occurred in the plural.

These forms, although derived by the suffixation of *-ing* to a verbal stem, are less productive today than the gerunds. Table 5.3 shows the results of eliciting the judgements of 20 native speakers on the productivity of concrete derived nominals in *-ing*. (See Appendix D for a description of the format).

Table 5.3
Response of 20 Subjects to Acceptability of 0-form Nouns, Plural Nouns, and
Verbs related to Concrete Nouns in -ing

Form	0-form Noun		Plural -s Form		Verb	
roofing	roof	20	roofings	5	to roof	11
tiling	tile	20	tilings	5	to tile	20
ceiling	ceil	0	ceilings	19	to ceil	0
plumbing	plumb	1	plumbings	2	to plumb	4
railing	rail	17	railings	20	to rail	5
caulking	caulk	13	caulkings	5	to caulk	20
silvering	silver	16	silverings	5	to silver	9
shelving	shelf	19	shelvings	7	to shelve	15
housing	house	20	housings	5	to house	17
stitching	stitch	20	stitchings	8	to stitch	20
tinning	tin	18	tinnings	3	to tin	7
lining	line	10	linings	17	to line	18
trimming	trim	17	trimmings	19	to trim	20
tubing	tube	19	tubings	6	to tube	2
dwelling	dwel	0	dwellings	20	to dwell	20
hemming	hem	17	hemmings	3	to hem	19
glazing	glaze	17	glazings	9	to glaze	20
gelding	geld	0	geldings	17	to geld	11
legging	leg	11	leggings	17	to leg	1
stocking	stock	0	stockings	20	to stock	0

Note: '20' next to an item means 20 subjects found the form acceptable; 0 next to an item means no subjects found the form acceptable.

Table 5.4 shows the distribution of derived concrete nouns with *-ing* for the fifteenth through the nineteenth century.

Table 5.4

Distribution of Concrete Derived Nouns in -ing
15th – 19th Centuries

	15th	16th	17th	18th	19th	
%	9.3	4.6	3.1	4.6	7.4	
N	732	240	504	240	431	N = 2147

progressives omitted

There is not a significant change in the relative frequency of these forms over time. Comparing the fifteenth century sample to that of the nineteenth, chi square = 1.2006, not significant at .05.

(5.5) that there was a thryfty woman come forðy the *watterynge* and fond the way stoppyde,

'...that there was a thrifty woman who came by the watering (place) and found the way stopped'.

(Paston Letters, p. 36, vol. 1)

(5.6) and I thank yow hartely of the good *lodgeng* that ye fand us.

'and I thank you very much for the good lodgings that you found us.

(Cely Papers, p. 64)

5.5.4 Adjunct Modifiers

Attributives derived with the feminine suffix occur in Old English and occur in prenominal position. The following examples are taken from the diachronic data.

(5.7) ...and have called for a new *burying place*.

(Diary of Ralph Josselin, p. 49, 1666)

(5.8) but also (pine smell) seems to be a regular *sleeping tonic*.

(Diary of Alfred Jackson, pp. 243) 1849

The modifiers in 5.7 and 5.8 are distinguished from prenominal participial modifiers on the basis of their relation to the following noun. Gerundive modifiers are paraphrased as prepositional complements to the noun, whereas participial modifiers are paraphrased as restrictive relative clauses. Examples 5.9 – 5.10' illustrate this difference.

(5.9) I did not see how it was possible to provide *standing room* for them.

(Diary of Mrs. King, pp. 3) c.1850, gerundive

(5.10) it was fitt ye king had a *standing Army*.

(Essex Papers, p. 166) c.1650 participle

(5.9') standing room = room for standing

(5.10') standing army = army which is standing (not engaged in a war)

A further difference is illustrated by the ability of postposing these modifiers to the immediate right of the N; in general the participial modifiers become adverbial whereas the gerundive ones are ungrammatical in this position in modern English.

(5.11) Jeddah is a *thriving* slavemarket
Jeddah is a slavemarket, *thriving*. participle

(Diary of Mrs Robert King, p.11) c.1850

(5.12) as under *mining law* a day's work must be done...
*as under *law mlnng* a day's work must be done...participle

(Diary of Alfred Jackson, p. 67) 1849

In modern English, stress patterns also serve to distinguish gerundive from participial modifiers in those cases where the modifier is really an adjunct to the following

noun. Compare *spinning wheel* and *spinning wheel* or a wheel that is spinning. The stress pattern is analogous to that discussed for other pairs in English such as *blackbird* and *black bird*.

Table 5.5
Distribution of Prenominal Modifiers (Gerundive)

	15th	16th	17th	18th	19th	
%	0.0	0.4	0.6	2.9	5.6	
N	732	240	504	240	431	N = 2147

5.5.5 Nominal and Verbal Gerunds

The gerunds were derived from Class I weak verbs in early Old English. Before the thirteenth century this process had extended to Class II weak verbs as well as through the strong verb classes, (OED). These forms denoted an abstract act or process. The following examples illustrate this.

<i>feding</i> – act of feeding	from	<i>fedan</i> – to feed (wk. I)
<i>macung</i> – act of making	from	<i>macian</i> – to make, do (wk. II)
<i>brecung</i> – act of breaking	from	<i>brecan</i> – to break (st. IV)
<i>writing</i> – act of writing	from	<i>writan</i> – to write (st. I)

Today the only verbs which cannot form gerunds are the modals.

*their maying	their being	their walking
*their coulding	their having	their eating
*their mighting	their doing	their striking

In addition to this widening distribution came the development of more verbal traits associated with these forms which led in turn to the eventual rise of the modern verbal gerund. (For the syntactic difference between verbal and nominal gerunds see Chapter Three).

The data in this study indicate a rise of verbal traits associated with the gerunds throughout modern English. The first verbal trait occurring in these data is the presence of direct objects following the verbal noun.

(5.13) if he graunt my bodyr Edmund ys son in recompence for *takyng my brody Edumnds son*.

if he would give my brother Edmond his son in compensation for taking my brother Edmund's son.

(Paston Letters, p. 616, vol. 2) c.1450

(5.14) Walter Raleigh Rere Admirall, who is newly restored to *the executing his place* in Court of Captaine of the Garde.

(Letters of John Chamberlain, p. 3) c.1570

Later, in modern English, there is also the co-occurrence of adverbs and periphrastic auxiliary forms with verbal nouns, (Jespersen 1956). Yet periphrastic forms and adverbs occur rarely with gerunds in the data of this study, suggesting that, as verbal features, they are not as prevalent as direct objects, and suggesting that they were acquired at a later time than the direct objects. In (5.14) above the verbal trait of direct object co-occurs with the nominal trait of definite article. This co-occurrence is no longer acceptable in modern English. Although constructions such as (5.14) are not frequent in the data, they appear most frequently during the period just preceding the appearance of the modern verbal gerund. Table 5.7 shows that for the seventeenth century over 12% of the gerunds were of the type shown in (5.14).

The Old English verbal nouns develop from nominals expressing an abstract event or action, to verbal constituents whose only surviving nominal traits are the syntactic

Table 5.7

Distribution of Gerunds as Nominal, Verbal and Intermediate Types

	15th	16th	17th	18th	19th	
nominal gerunds %	86.4	69.1	32.8	21.4	37.3	
verbal gerunds %	12.2	29.9	55.0	78.6	56.8	
intermediate %	1.4	1.0	12.2	0.0	5.9	
	100	100	100	100	100	
	(295)	(97)	(171)	(56)	(117)	N = 736

In Table 5.7 the intermediate sample shown for the nineteenth century contains only instances with a possessive pronoun, i.e., no instances of definite or indefinite article. They were included in this category, however, to maintain consistency across the samples for each century. In earlier centuries, the majority of examples with a preceding determiner (definite, indefinite article, possessive pronoun) occur with articles. The category of verbal gerund in Table 5.7 shows gerunds with direct objects, but without any preceding type of determiner.

Table 5.7 shows that the highest percentage of the intermediate category occur after the period of greatest frequency of the nominal gerunds and during the beginning rise of the verbal gerunds.

5.5.6 The Acc-ing Construction

Related to the verbal gerunds is the construction referred to as Acc-ing. (4) Kellner (1892) states that this construction is much older than the Poss-ing construction. His statement is based on no apparent evidence. A possible source for this belief may arise from the existence of English translations of Latin gerunds, (Callaway 1929). Apart from this influence through translation, there does not appear to be evidence of this form occurring in Old English, (Weber 1900), (Jespersen 1956), (Armstrong (1892)). The historical data in

this study are consistent with the view that the Acc-ing construction expanded as part of the general verbal development of the Old English verbal noun.

Table 5.8
Distribution of Acc-ing 15th – 19th Centuries

	15th	16th	17th	18th	19th	
%	0.1	0.4	1.8	0.4	3.0	
N	732	240	504	240	431	N = 2147

(5.15) Heard farther good news out of Scotland o' (of) *army getting health*
(Diary of Ralph Josselin, p. 79) 1649

(5.16) they could not cross their in Consequence of *so much Ice being in the river.*

(Diary of Jeremiah Greenman, p. 241) 1776

Combining the samples from the fifteenth through the eighteenth centuries and comparing the relative frequency of this to the nineteenth century sample gives a chi square of 16.0682, $p < .001$.

5.5.7 Gerunds as Noun Phrase Complements

These constructions entail the use of a gerund as complement to a preceding noun phrase, the noun phrase usually expressing an abstract idea.

I had *no idea of coming*

He had *no chance of winning*

The modern syntactic characteristics of these constructions have been discussed earlier, (see Chapter Three, Section 3.4.1.5). Visser does not cite examples from Old

English for this type of construction, and none of the later examples he gives from Middle English occurs with the *-ind* suffix of the original participle. These constructions in modern English are not instances of expanded genitive constructions, evidenced by the unacceptability of paraphrases such as **coming's fear* from *fear of coming*. In contrast the nominal gerund construction can be expressed as either *the shooting of the hunters* or *the hunters' shooting*.

- (5.17) *The fear of losing...the lyfe of his sely soule.*
the fear of losing the life of his good soul.

(St. Thom. More, Wks., 1146, D9, Visser vol. 2, p. 1117), 1534

The historical data reveal two basic types of this construction, those which appear to function as nominal complements to NPs and others which appear to function as sentential complements. In (5.18) below, *shipping* refers to actual contents, whereas in (5.19) *putting the coffee* refers to an event.

- (5.18) ...to assist her with grete *store of shipping* of their own charge
(Letters of John Chamberlain, p. 7) c.1570 complement to NP

- (5.19) till our host set *the example of putting the coffe* cup into the egg cup
(Diary of Mrs. Robert King, p.10) c.1850 sentential complement

Unfortunately such examples occurred infrequently in my historical corpus and it is therefore not easy to determine the range of syntactic environments for such constructions. In modern English the types of nouns which take either type of complement represent a number of semantically definable classes. (See Chapter Three).

From examples (5.18) and (5.19) it is apparent that both complement types occur in the syntactic position of noun phrases, similar to the nominal and verbal gerunds. They also exhibit a parallel difference shown between the nominal and verbal gerunds, in that the sentential complement type exhibits verbal characteristics, whereas the nominal complement type does not. For this reason, I assume that these complements are related

to the Old English verbal noun, rather than the Old English participle. How long these constructions have existed, in particular whether they occurred prior to the replacement of *-ind* with *-ing*, is not certain. Table 5.9 shows the distribution of the two complement constructions. With the exception of two examples, one of which was given above, the complements are all of the sentential type.

Table 5.9
Distribution of *-ing* Complements to Noun Phrases

	15th	16th	17th	18th	19th	
%	1.3	4.6	4.0	1.3	2.1	N = 2147
N	732	240	504	240	431	

5.6 Constructions Historically formed with *-ing* or *-ind*

These constructions are treated as ambiguous by virtue of the fact that they originally occurred with both the *-ing* and *-ind* suffixes. Because the formal distinction was eventually lost, it is not always possible to determine whether certain constructions which appear after the replacement of *-ind*, are, historically, participles or verbal nouns. Such constructions were tabulated separately. In Chapter Six I will argue that there is evidence that this group of constructions is more closely aligned with the participles than with the verbal nouns, at least with respect to the dependent variable, the dependent variable defined as presence or absence of final <e>.

5.6.1 Quasi-Progressives

These constructions have occurred since Old English. The examples in (5.20) – (5.21) illustrate that these constructions could occur with either the present participle or

the verbal noun. This is shown by the orthographic differences in the examples, which are taken from texts that still preserved the two original suffixes.

- (5.20) ...to tell the folk that *folwand* to jusu *fell*.
to tell the people that fell flying to Jesus

Curs. Mundi c.1390, Visser, vol. 3, pt. 2, p. 1891

- (5.21) Al-mast in *svoning* thar he *fell*
almost in swooning he fell there – he fell in swooning

Curs. Mundi c.1343, Visser, vol.3, pt.2, p. 1892

- (5.22) they *fell a-chydyng* with craft conveyance

Skelton Magnyf, 1520, Visser, vol.3, pt. 2, p. 1893

Visser classifies the first verbs in these constructions according to the following categories:

inchoative – begin, start
continuative – keep, continue
terminative – stop, quit
motion – come, go
rest – lie, sit, stand
modality – proved, seemed

For each category given by Visser, there are examples which can be found in Old English.

(5.22) above shows a reduced form *a-chydyng* derived from a preposition followed by a verbal noun. This type of construction has been frequently cited with respect to the origin and evolution of the modern progressive tenses of English, (Jespersen 1956), (Curme 1912). Some instances of preposition followed by gerund (verbal noun) are observed in modern English.

He kept on going.

Visser cites at least one example of *a + verbal noun* in Old English which would seem to refute the statement that this contracted form first occurred later in Middle English. Visser states that this form increases substantially during Middle English. The data in my historical corpus do not support this. (See Table 5.10 below). Traugott (1972a) expresses doubt over the frequency of this construction prior to the late nineteenth century.

Visser (1973) states that both the *a + verbal noun* and the present participle, i.e.

he kept a going / he kept going

were considered standard at least into the seventeenth century. Ben Johnson (Visser, vol. 3, pt. 2, p. 1899) cites it as a legitimate construction in his grammar. Table 5.10 below shows the distribution of the quasi-progressives.

Table 5.10

Distribution of Quasi-progressives
15th – 19th Centuries

	15th	16th	17th	18th	19th	
%	0.0	0.8	0.0	0.4	1.4	
N	732	240	504	240	431	N = 2147

Even though examples of the quasi-progressive are cited by Visser from Old and Middle English, my historical data support the view of Traugott that such forms were rare before the twentieth century. (Chapter Four showed this construction to comprise about 7% of the spoken British corpus from the twentieth century, 160/2363 = 6.7%).

(5.23) and on Monday (I) *came posting* to London with your cosen.

(Letters of John Chamberlain, p.15) c.1550

(5.24) they *came scattering*

(Letters of John Chamberlain, p. 21)

- (5.25) *Began betting* just to get near her and hear her talk.
(Diary of Alfred Jackson, p.8 1851)

5.6.2 Verb Phrase Complements

5.6.2.1 Verb Phrase Complements with Equi NP Deletion

The name Equi NP Deletion is used here for reasons relating to the history of generative syntax. The name refers to a deletion rule which deletes an overt subject in an embedded clause, under the condition that this subject is coreferential with either the mainclause subject or object. Recent syntactic theories (Chomsky 1981) analyze these constructions without appealing to a deletion rule, i.e., coreference is accounted for on the basis of more abstract principles not requiring the assumption of an underlying full NP in the embedded clause subject position. (5)

Constructions which today could be analyzed as within the domain of Equi NP Deletion are attested as far back as Old English as shown in (5.26). It has not been resolved to what extent Latin translation influenced the appearance of these constructions, (Visser 1973).

- (5.26) hi andredon *hine ahsiende* = timebant interrogare eum
they dreaded asking (to ask) her – they dreaded her asking
(O.E. Gospels, Mk. 9, 92 Visser, vol. 3, pt. 2, p. 1868)
- (5.27) yf thow will *eschew laghing* in divyne servise
if yow will eschew laughing in divine service
(A Devout Treatise Called he Træe) ed. Vaissier, 22, c.1400, Visser
vol. 3, pt. 2, p. 1870)

In (5.27) there is ambiguity as to whether the expression *laughing* is a gerund, in the sense *laughing* can be interpreted as an abstract object, versus the action of laughing. The position directly following the main verb provides an environment of potential ambiguity between forms which are gerunds and forms which are participles. The data I have located during the time when spelling would disambiguate this are few.

Because these constructions occurred so infrequently in my historical corpus, I have grouped them together with the verbal complements where Equi NP Deletion does not apply. These are discussed in the next section.

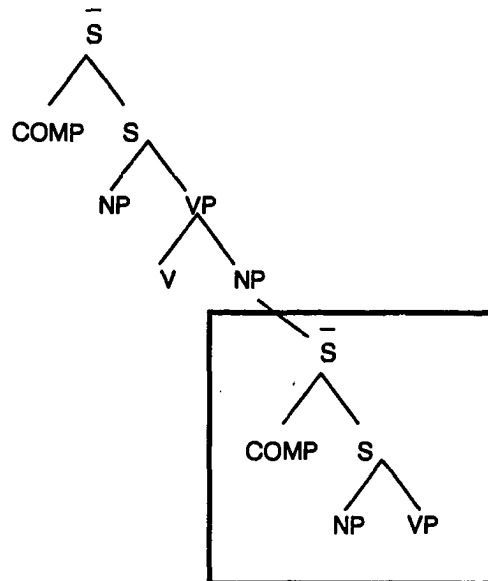
5.6.2.2 Verb Phrase Complements without Equi NP Deletion

This type of verbal complement in modern English is defined by the subcategorization frames of the main verb. The most frequently occurring examples are complements to verbs of perception, e.g., *see*, *hear*, as well as somewhat more indirect types of perception, e.g. *study* and *discover*. There are other verbs which do not take this type of complement, but do take gerund complements. (Some verbs can take either type of complement). These differences are illustrated below. the original observation of this point is due to Fillmore (1963).

I watched Mary beating eggs.	verb phrase complement
*I watched Mary's beating eggs.	verbal gerund
*I watched Mary's beating of the eggs.	nominal gerund
I regretted Mary's having told the lie.	verbal gerund
*I regretted Mary having told the lie.	verb phrase complement
I remember John's loud singing.	nominal gerund
I remember John singing loudly.	verb phrase complement.

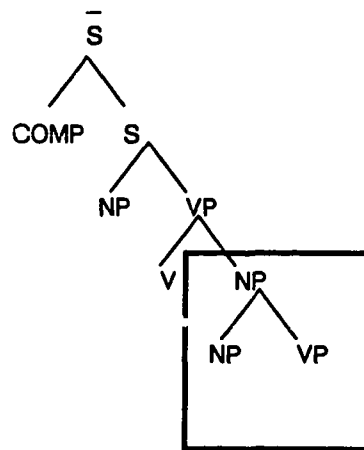
In current syntactic work (Akmajian 1977), (Lasnik and Fiengo 1974), there has been some discussion as to the underlying structure of verb phrase complements. One view assumes them to be sentential complements to the main verb as shown in

Figure 5.2
Verb Phrase Complements as Sentential Structures



Another view assumes that they are NP complements to the main verb as shown in

Figure 5.3
Verb Phrase Complements as NP Structures



Akmajian (1977) argues for the second analysis, with respect to verbal complements of perception verbs. One fact supporting Akmajian's position is that VP complements do not occur with auxiliaries:

*I heard Mary having played my song. (Akmajian 1977)

The first structure given above would predict the acceptability of such sentences. Akmajian also notes that overt complementizers are unacceptable.

- *I heard that Mary playing my song.
- *I heard for Mary to (be) playing my song.
- *I heard Mary's playing my song.

Again, with a sentential analysis there is no apparent way to block the generation of these, unless some additional obligatory rule of zero complementizer for these be added to the grammar, which is without independent motivation.

Akmajian's non-sentential analysis of verb phrase complements provides a structural correlate to the difference in semantic interpretation between complement pairs such as the following:

I saw the moon rising over the mountain. (report of direct perception)
I saw the moon rise over the mountain. (report of indirect perception)

He postulates two subcategorization frames for perception verbs as [_NP[NP VP]] and [_NP VP]. The first frame analyzes the *-ing* complement in a manner similar to the way direct objects would be subcategorized for these verbs. for example *I saw [John]* is structurally parallel to *I saw [the moon rising over the mountain]* except for the internally more complex structure of of the *-ing* complement. In contrast, the sentence *I saw the moon rise over the mountain* is said to be represented by the second frame where the complement is not dominated by an intervening NP, but directly by the main VP. Akmajian's semantic intuitions are that *I saw the moon rise over the mountain* expresses a more indirect report of the perception of the event, than does the sentence *I saw the moon rising over the mountain*. My own intuitions are not clear on this distinction, although formulating the sentences into the present tense sharpens this distinction somewhat for me. *I see the moon rising over the mountains* has the preferred reading of 'right now as I'm perceiving it' whereas *I see the moon rise over the mountains* has the preferred reading of habituality, i.e. not necessarily at this moment in time. If these judgements are correct, Akmajian's analysis receives further support over a sentential analysis of verb phrase complements. The sentential analysis has no way of structurally capturing the difference in semantic interpretation, because both complement types would be assigned the same structure by that analysis, i.e. both would be dominated by S single bar.

The following example from early modern English illustrates that this construction could have a different word order at one time.

(5.28) thai the ship *saw byrnand*,

(Barbour Bruce, XVII, 442, 1375, Visser, vol. 3, pt. 2, p. 2344)

The modern verbs which take verb phrase complements are not, in general, attested until modern English. One notable exception is the verb *see*, e.g. (5.28) above.

The number of verb phrase complements found in my historical corpus is small, as shown in Table 5.11.

Table 5.11
Distribution of Verb Phrase Complements (+/-Equi NP)
15th – 19th Centuries

	15th	16th	17th	18th	19th	
%	0.1	1.3	0.6	1.3	4.4	
N	732	240	504	240	431	N = 2147

Table 5.11 shows the distributions for both types of verb phrase complements, with or without Equi NP Deletion. The data show a marked increase of these constructions between the eighteenth and nineteenth centuries. Combining the samples from the fifteenth through the eighteenth centuries and comparing this to the sample for the nineteenth century gives a chi square of 37.8365, $p < .001$. (6)

5.6.3 Progressives

A number of scholars (Curme 1912), (Jespersen 1956) (Mustanoja 1960), have argued that the modern English progressive is the result of the reduction of a preposition and a verba noun. One frequently cited example of this process is:

the church is on building	>	
the church is a-building	>	reduction
the church is building		deletion

Examples of both the forms *Be + Participle* and *Be + Preposition + Verbal Noun* have been attested from early Middle English onwards, (Visser 1973). The preposition most common with the construction involving the verbal noun is *on*. (7)

The construction containing existential *Be* and present participle has occurred in a number of Indo-European languages, although the functions may not be identical to those of the modern English progressive. Among these languages are Hittite, Vedic, Sanskrit, Classical Latin, Classical Greek, Old Slavonic, Gothic, Old Saxon, Old Frisian and Old Russian, (Visser 1973).

Although there are some statements to the effect that the frequency of the progressive (or expanded form to use Visser's terminology), was rare in Middle English (Arnaud 1982), (Aristar and Dry 1982), some evidence suggests that its occurrence was more prevalent than has been assumed. For example in the northern literature of Middle English the following frequencies are cited for the progressive, (Mosse 1938).

Northern Dialect		
Source	N	
Surtees Psalter	132	
Cursor Mundi	66	
Prick of Conscience	81	
Richard Rolle	185	
Northern Passion	120	(cited in Visser, vol. 3, pt. 2
Barbour's Bruce	173	p. 1993)

Leah Dennis (Visser 1973, vol. 2, p. 1993) is said to report a steadily increasing use of this construction throughout modern English, not a view consistent with Arnaud (1982). Potter (1969) contrasts the following works; in all of Shakespeare there are 8 instances of the form, in *Oliver Twist* alone there are 24, or 4% of the total of instances where the form

could occur, and in *The Catcher in the Rye* there are 75 or 35% of the instances where the form could occur, (Potter 1969, p.125).

Despite these data, in Old English there are apparently only five attested sentences containing *Be + Participle* in the function of Visser's notion of the expanded form, and each of these five cases can be interpreted ambiguously, (see Footnote 3, Chapter Seven for the five examples cited by Visser). In Middle English three forms exist:

- be + preposition +Ving
- be + a + Ving
- be + Ving

Visser considers the possibility that speakers during late Middle English must have still felt *a + V-ing* as a noun, and therefore not accepted it with a verbal function. Yet *a + V-ing* is not found occurring with other nominal features such as the definite article.

In modern English the form has been reinterpreted as a verbal element. Its status at the time of the replacement of *-ind* with *-ing* is not entirely clear at present. Table 5.12 shows the distribution in my historical corpus for the progressives.

Table 5.12

**Distribution of the Progressive
15th – 19th Centuries**

	15th	16th	17th	18th	19th	
%	1.7	5.5	2.1	3.2	15.7	
N	745	254	515	250	511	N = 2275

Table 5.13
Distribution of a + Participle
15th – 19th Centuries

	15th	16th	17th	18th	19th	
%	0.4	0.8	0.0	3.3	3.3	
N	732	240	504	240	431	N = 2147

Table 5.12 shows a significant increase in the progressive during the nineteenth century. Comparing the combined samples of the fifteenth through eighteenth centuries to that of the nineteenth century gives a chi square of 124.8426, $p < .001$.

(Note: The data from the eighteenth century sample contain 54 instances in which the participle begins a main clause without a subject, or a preceding auxiliary verb, e.g., *continuing Near head Quarters a mild (mile) from ye City* (Diary of Jeremiah Greenman, p.19). Such forms constitute 17.8% of the eighteenth century sample and were not found in my corpus of earlier centuries. It seems quite plausible that these can be analyzed as progressives, i.e., they are elliptical forms written hastily in a soldier's diary. Without more concrete evidence, however, I kept them separate from the other progressives. Had they been included in the eighteenth progressive sample, a significant increase in the progressive over time would have been seen a century earlier than shown in Arnaud's work, (Arnaud 1982).

A comparison of Tables 5.12 and 5.13 shows that the proportion of a + *participle* is always lower across time than for the corresponding progressive without preceding a. This may reflect the characteristics of written English, yet Traugott (1972a) states that these constructions do not occur frequently until the nineteenth century. The examples below represent the earliest instances in my corpus of the progressive and of the a + participle type constructions.

- (5.29) *whell ze ar goyng* to a marte
it is good that you are going to a market

(Cely Papers, p. 50) c.1450

- (5.30) and I wholde *wher doyng* among hodyr men
and I would (prefer) that we were doing (business) among other men

(Cely Papers, p. 50) c.1450

(Note: (5.29) and (5.30) express both future and hypothetical situations, not ongoing events.)

- (5.31) *tyl I woste of your a-mendyng*,
until I learn of your recovering

(Paston Letters, p. 218) c.1450

- (5.32) if the post had not *kept* your letter of the eight of May *a seasoninge* till
the sixt

(Letters of John Chamberlain, p. 1) c.1550

The examples begin to occur more frequently in the 1800s, as shown in the following two examples from Sam Slick.

- (5.33) for you might see him sometimes of an arternoon *a swimmin* along
with the boys in the Potomac

(The Clockmaker, p. 84) 1832

- (5.34) and it made our navals look round, like a feller who gets a hoist, to
see who's *a larfin* at him

(The Clockmaker, p. 142) 1832

Note the differences between (5.32) (5.33) and the examples from *The Clockmaker* (Sam Slick). In (5.31) the form is really a gerund, modified by a possessive pronoun and occurring in the position of an NP. In (5.32) the form occurs as the complement of the quasi-modal *kept*. In contrast, the examples from *The Clockmaker* occur in verbal positions.

Example (5.33) occurs as a verb phrase complement, and (5.34) occurs as the main verb in the indirect question.

5.7 The Present Participle Suffix *-Ind*

In the following sections I will discuss constructions which are historically associated with the present participle, i.e. examples of them are found with the original participial suffix *-Ind* prior to the fourteenth and fifteenth centuries. I assume the *periphrastic future tense* to be participial due to its late development (19th century), and because it shares certain distributions with the modern progressive tense, and shares no distributions with the modern gerundive or action nominals. Similarly, although I have found no examples of the sentential complements until Modern English, their shared distributions with other known participials supports the inclusion of them with these.

5.7.1 Appositive Participles

These occur frequently in Old English, and occur originally with the participle *<nd>*. Callaway (1901) has provided considerable evidence that these constructions are largely borrowed from Latin texts in translation, with the exception of appositives which serve an adjectival function. (8) Very rarely in Old English does this construction occur with *-Ing*, the following example is one such rare instance.

(5.35) No wonder though she wepte and cride, *Makend* many a woful mone.

(Gower, C.A., c.1380, Morley, Visser, vol. 2, p. 1133)

The following is an example of the appositive from Middle English.

thei going out, prechiden
they going out, preached.

(c.1382 Wyclif Mark:6:12)

(Note: the final *-en* on the verb conveys plurality).

In modern English only a full NP (not a pronoun) can shift from the main clause onto the non-finite subordinate clause;

John fell down, riding his bicycle.

John riding his bicycle, fell down.

He fell down, riding his bicycle.

*He riding his bicycle, fell down.

Table 5.14
Distribution of Appositive Participles
15th – 19th Centuries

	15th	16th	17th	18th	19th	
%	16.5	21.3	14.5	22.1	18.8	
N	732	240	504	240	431	N = 2147

These non-finite clauses appear fairly constantly throughout the historical periods examined. (9)

(5.36) I recomand [me] on-to yow, *praying yow* that ye wyll in all hast send me word how that ye wyll that...

(Paston Letters, p. 547, vol. 1) c.1450

(5.37) *Wriggling in and out as we did* I could not assume quite the degage air I should have wished.

(Diary of Mrs. R. King, p. 9) c.1850

In contrast to the sentential complements above, these constructions are more loosely conjoined to the main clause and are able to occur in either sentence initial or sentence final position. Sentential complements are usually restricted to final position following a prepositional phrase. Semantically appositive clauses are less tied to the main clause, often expressing a sequential idea or event to the one expressed in the main clause, e.g. cause or consequence. Yet appositives frequently serve the role of adverb, modifying the main clause with respect to manner, location or time.

5.7.2 Absolute Participles

Absolute participles are non-finite clauses loosely subordinated to a main clause. Unlike appositive participles they may express their own surface subjects which are not coreferential with the subject or object of the main clause.

(5.38) Wether (is) open & warm, *the plague decreasing little* at Colchester

(Diary of Ralph Josselin, p.150) 1666

(5.39) ...*but our men being very much fateagued* we could not follow after them.

(Diary of Jeremiah Greenman, p.74) 1776

Table 5.15
Distribution of Absolute Participles
15th – 19th Centuries

	15th	16th	17th	18th	19th	
%	1.9	3.3	11.3	10.4	2.3	
N	732	240	504	240	431	N = 2147

The higher percentage in the seventeenth century sample is probably due to the greater formality of the materials selected for that century. Callaway (1889) provides strong evidence that this construction was originally borrowed from Latin in Old English translations of Latin texts. Houston (1983) presents evidence that this construction has been maintained predominately in learned and formal genres of English. (10) The synchronic data taken from British working class speech show less than .3% of the (ING) sample are absolute participles. (See Chapter Four).

5.7.3 Reduced Relative Clauses

Since the time of Old English the language has used participles <ind> as modifiers of nouns. In modern English the construction known as *whiz deletion* is analyzed as a reduced relative clause.

The girl (who is) dancing with the tall man is my sister.

The data from Middle and Old English support the view that these constructions are participial in nature, and not derived from the verbal noun.

(5.40) *thre thousand hyndes Wylde walkande by wode-lyndes*
 three thousand wild female deer walking in the woodlands

(c.1338 Robert Brunne, Chronicles (Zetsche) 4740, Visser, vol. 2, p. 1106)

(5.41) The erth to norish *bestys creapand*
the earth to nourish beasts (that are) creeping.

(1460 Towneley Plays 3, 56, Visser, vol. 2, p. 1106)

In Old and Middle English, adjectives could appear frequently after the noun they modified, note *hyndes Wylde* above in (5.40). In the data there is some evidence of post-nominal modifiers for nouns, which today would occur in prenominal position.

(5.42) I tryst it chall be better in *tyme commyng*

(Paston Letters, p. 415, c.1450)

(5.43) the *night following*

(John Chamberlain, p. 35, c.1550)

Constructions such as the ones above disappear for the most part after the sixteenth century. All the examples in the data of this form involved time expressions. In contrast, there is a shift towards using *-ing* modifiers in pre-nominal position across time. Looking at the overall distribution of the participial pre-nominal modifier and the post-nominal one, a shift from post-nominal to pre-nominal position can be seen over time as shown in Table 5.16.

Table 5.16
Percentages of Pre-nominal and Post-nominal Modifiers
15th – 19th Centuries

	pre-nominal	post-nominal	N	
15th	71.0	29.0	100	31
16th	40.0	60.0	100	10
17th	7.1	92.9	100	14
18th	10.5	89.5	100	19
19th	0.0	100.0	100	25

N = 99

NOTE: There is no significant difference in the percentages between *adjunct gerundive* modifiers and *adjunct participial* ones.

Although the numbers are small, it is quite clear that post-nominal modifiers disappear during Modern English. They are preserved in the earliest data of this study only in formulaic time expressions.

In modern English the only forms occurring in *-ing* which serve a modifier function and which occur in post-nominal position are reduced relative clauses. The modern contrast between adjectival premodifiers and post phrasal reduced relative clauses can be seen in the following pair:

I saw *the crying girl in the garden*.

I saw *the girl crying in the garden*.

The second example is actually ambiguous between a reduced relative clause, and a verb phrase complement. If the interpretation is adjectival, selecting the girl who was crying, it is analyzed as a reduced relative clause. If it is interpreted adverbially, describing what the girl was doing, it is a verb phrase complement.

I saw *the girl who was crying* in the garden. (rel. cl)

I saw *the girl cry* in the garden. (verb phrase comp.)

Table 5.17

Distribution of Reduced Relative Clauses 15th – 19th Centuries						
	15th	16th	17th	18th	19th	
%	2.6	4.6	3.2	3.3	6.5	
N	732	240	504	240	431	N = 2147

Traugott (1972a) argues that in Old English there were few reduced relative clauses except those of the form *Be + Adj* and also constructions using *gehaten* = 'be called'. She does not address the issue of whether these constructions used the participle in *-ind* or the verbal noun in *-ing* in the adjectival position.

Both Middle English and early Modern English made use of split constructions in which the participle comes before the modified noun, and the complement clause comes after. The example below shows this with the past participle.

(5.44) his *decayed eyes with iniquitie*
his eyes decayed with iniquitie

(Strange News, Nashe 1.262.25, Traugott, 1972a, p. 159)

Traugott states that the conditioning environment for moving (past) participles to pre-nominal position was the widespread use of *Be*.

the tree is fallen > *the fallen tree*

Later, when *Have* replaced *Be* in such constructions, e.g.,

the tree has fallen,

the relationship that was present between the first pair, i.e. *the tree is fallen* and *the fallen tree*, no longer existed. This explains why not all past participles or present ones occur as pre-nominal modifiers.

**The arrived letter.*

(Note: Traugott mentions that in late Middle English and early Modern English, the borrowing of French participles resulted in a renewed appearance of post-nominal modifiers, in analogy to the French, but eventually this trend died out.)

Today the constraints against post-nominal participial modifiers occurring with *-ing* are very strong. If acceptable they are interpreted as clauses and not as modifiers within the same clause as the preceding noun.

the falling leaves > *the leaves, falling*

The presence of the comma in the example above indicates that there is a clausal boundary between *leaves* and *falling*; no boundary is ungrammatical except in the occasional absolute participle constructions such as,

the leaves falling, I decided to go out and rake them up.

In general, reduced relative clauses in modern English require that the *-ing* participle be followed by a complement, either prepositional or adverbially. (Note: non-derived adjectives cannot occur in post position **the house white*, nor **the book yellow*, although *the book yellow with age* is acceptable.)

5.7.4 Sentential Complements

This type of construction occurred in Old English with a participle ending <nd> and was one of the last to give up the original spelling for the <ng>, Visser (1973).

(5.45) the kyng went home *full sore wepand*
 the king went home weeping greatly

(c.1425 Metr. Paraphr Old Test. (ed. Ohlander) 13712, Visser, vol. 2,)

(5.46) thus he rode *sekyng a grete whyle*
 and so he rode seeking a great whale

(1470–85 Malory M.d'A. (Sommer) 578, 7, Visser, vol. 2.)

In the second example above we might analyze the form *sekyng* as part of an appositive adverbial construction. Since there is no pause indicated however, it could also

be a sentential complement which is tied somewhat more closely to the main clause. These two types of constructions are not always distinguished easily, nor are they unrelated, either syntactically and semantically.

Table 5.18
Distribution of Sentential Complements
15th – 19th Centuries

	15th	16th	17th	18th	19th	
%	0.0	0.2	0.2	3.8	4.2	
N	732	240	504	240	431	N = 2147

Although two examples from the fifteenth century are cited above by Visser in (5.45) and (5.46), my own historical data do not show these constructions appearing until the seventeenth century. They are distinguished from other non-finite clauses such as appositives only in terms of their more strictly bound relation to the matrix clause. The following two examples represent the earliest instances of this construction found in my data.

(5.47) Sum of the men made thair Selvs Sick *eating so much*
(Diary of Jeremiah Greenman, p. 19) 1775

(5.48) Sum of the Cannoes over S[et] *crossing the river*
(Diary of Jeremiah Greenman, p. 20) 1775

5.7.5 Periphrastic Future

Most scholars (Jespersen 1956), (Curme 1912) (Wolfram and Christian 1980) maintain that the periphrastic future is a relatively recent development in English, appearing

first in the nineteenth century. As an extension of the progressive in modern language it can be considered to be derived from the participle. My own data contain no examples of this form before the nineteenth century, nor have I found references to it in the work of other scholars before this time period, (Mustanoja 1960).

Table 5.19
Distribution of the Periphrastic Future
15th – 19th Centuries

	15th	16th	17th	18th	19th	
%	0.0	0.0	0.0	0.0	1.4	
N	732	240	504	240	431	N = 2147

The earliest examples of the periphrastic future in my data are:

(5.49) *We are going to try* the flat and if that don't paywe will go off prospecting.

(Diary of Alfred Jackson, p. 28) 1849

(5.50) Says he *is going to make* a survey this week

(Diary of Alfred Jackson, p. 30) 1849

5.7.6 Adjunct Modifiers with –Ind

Examples of this type of construction can be found in Old English.

(5.51) heo haued that *jallinde Yvel*
she had that falling evil

(Ancren Reweie (EETS) 1952, 78, II, Visser, vol. x, p. xx)

In Middle English both these and the adjunct gerundive modifiers (with *-ung*) increase in frequency. Besides the semantic differences between gerundive and participial adjunct modifiers, which can be exemplified by their respective paraphrases, adjunct modifiers which are participial co-occur with adverbs. Gerundive adjunct modifiers co-occur with adjectives.

a rapidly spinning wheel (participle)

a wooden spinning wheel (gerundive)

Table 5.20

Distribution of Adjunct Modifiers (+Participial)
15th – 19th Centuries

	15th	16th	17th	18th	19th	
%	1.2	2.5	2.6	7.1	5.8	
N	732	240	504	240	431	N = 2147

Comparing the samples for the fifteenth and the nineteenth centuries, a chi square of 19.9714 obtains, $p < .001$. This represents a significant increase over time of the occurrence of these constructions. This effect may simply be a manifestation of the general increase of prenominal modifiers in modern English, because a similar pattern is shown for prenominal modifiers which are gerundive in origin.

(5.52) some *enterprising* pilgrim spread the boats hanging on the davits;

(Diary of Mrs. R. King, p. 4) c.1950

(5.53) but there they stuck in a solid *writhing* mass

(Diary of Mrs. R. King, p. 4)

5.7.7 Predicate adjectives

Visser gives evidence that these were originally participles in Old English, and eventually changed their ending to <ing> by about 1205, (Visser 1973).

- (5.54) *Gif we beoth rihtonde*
 if we are doing--what-is--right lit. 'righting'
 (Blickling Homilies, 51,14, Visser, vol. 2, p. 1122)

- (5.55) *for thy hi sunt fleonde*
 (Alfred, Boeth., (Fox), 144, 36, Visser, vol. 2, p. 1122)

Table 5.21

Distribution of Predicate Adjectives 15th – 19th Centuries						
	15th	16th	17th	18th	19th	
%	1.1	1.7	3.4	2.5	2.8	
N	732	240	504	240	431	N = 2147

Table 5.15 suggests a gradual trend of increasing occurrence of the predicate adjectives. A comparison between the distributions for the fifteenth century and the nineteenth century shows a chi square of 4.5914 $p < .05$. Overall, the form does not represent a widespread construction involving *-ing*. The examples below represent some of the earliest instances of this construction in my data.

- (5.56) *in as meche as thei were not wele-wyllyng to be godeman*
 in as much as they were not well-willing to be good men
 (Paston Letters, p. 229) c.1450

- (5.57) *(she is) apt in her learning, tender-hearted and loving*
 (Diary of Ralph Jossalin, p. 74) 1666

5.7.8 Adverbs

Some adverbs in Old English were formed by suffixing the form *-lice* to the present participle of verbs. For example from the verb *scyndan* = 'to hurry, hasten', the participle *scyndend* is formed, to which is added *-lice* forming *scyndendlice* = 'hastily'. Among the adverbs found in the historical corpus are *lovingly*, *accordingly* and *willingly*. The first attested example of *lovingly* is found in 1398 (Trevisa) (OED). The first example of *accordingly* is cited c1440 (Pecock, OED), and *willingly* is c.1385 in Chaucer, (OED). Table 5.22 below presents the distributions for the adverbs.

Table 5.22

Distribution of Adverbs 15th – 19th Centuries						
	15th	16th	17th	18th	19th	
%	0.3	2.9	1.4	0.4	0.2	
N	732	240	504	240	431	N = 2147

From Table 5.22 it is clear that adverbs have comprised a very small proportion of the *-ing* data over the modern period of English. The following two examples illustrate its occurrence, both with and without the final adverbial suffix *-ly*.

(5.58) I recomende me unto yow as *lovyngly* as harte cane thyne (think)

(Paston Letters, p. 33) c.1450

(5.59) the wether hath ben so *exceding* fowle that...

(John Chamberlain p. 27) c.1550

5.8 Prepositions

The use of prepositions in *-ing* has occurred throughout the historical data. These forms include the following:

according
 during
 concerning
 notwithstanding
 saving
 touching
 including

The examples below illustrate the use of these prepositions.

(5.60) for that ye, *acordynge* to the trowth, tolde un-to them...
 (Paston Letters, p. 192)

(5.61) *duryng* his life
 (Paston Letters, p. 195)

(5.62) we had many debates *concerninge* Ireland
 (Essex Papers, p. 177)

(5.63) That those five gentlemen may and ought to come to attend this comittee, *notwithstanding* any warrant ishued.
 (Verney Papers, p. 177) c.1640

(5.64) he aught to haue receyvid any money *savyng* only forthe making of the litell hous
 (Paston Letters, p. 68)

(5.65) *Touching* Flushing, I heare of no alteration.
 (Chamberlain Letters, p. 44)

(5.66) ...and *including* an enormous English troopship just arrived.

(Diary of Mrs. King, p. 18)

These prepositions occur predominately in more formal writing and do not occur in the modern spoken data. Table 5.23 below gives the distributions of these prepositions in the historical data.

Table 5.23

Distribution of Prepositions
15th – 19th Centuries

	15th	16th	17th	18th	19th	
%	8.7	6.7	5.4	3.3	1.4	
N	732	240	504	240	431	N = 2147

Table 5.23 indicates a steady decline of the prepositions; the relative scarcity of these forms in modern American and British working class speech (with the exception of temporal *during*) is consistent with the view that these prepositions are associated with the speech of more educated classes, especially the forms *notwithstanding*, *concerning*, *saving* and *touching*.

With the exception of *notwithstanding*, all the other prepositions occurring in my historical data are of French origin. The earliest attested instance of *during* is found in the fourteenth century in Chaucer *durant*. (OED) Other prepositions are first attested as follows:

concerning (Fr *concernant*) 15th century, OED

touching (Fr *touchant*) c.1350 Will Palermo, OED

considering (Fr *considerant*) c.1396 Chaucer, OED

according (Fr accordant) 15th century OED

Notwithstanding is originally derived from the present participle *wlthstand* which is of native origin, although the subsequent preposition is thought to be modelled after the French equivalent *nonobstant*, (OED).

5.9 Summary of Major Constructions in the Historical Data

Table 5.24 below summarizes the distributions for all the forms discussed above. These are listed according to their morphological histories.

PLEASE NOTE:

**This page not included with
original material. Filmed as
received.**

University Microfilms International

Footnotes

1. A fourth source, *thing*, is also included but this is not an instance of monomorphemic *-ing*.
2. Originally *every* was semantically closer to *each*, the former differed only in its universality of application. Later, *each* came to specify individuals, *every* specified the totality of the group. (OED).
3. One example of this construction did occur in the speech of a British subject, who, in referring to the work he did in winter said *the chopping the tree*. Other speakers, both British and American, reject such types of constructions.
4. The name originates from the attempt to distinguish genitive case marking which is present in nominal gerund constructions that are modified by preceding nouns and pronouns (*Mary's singing*), from constructions in which genitive case marking does not occur, (*Mary singing*). The existence in Latin of gerunds taking modifiers in the genitive or accusative case is the immediate source of the name. Other writers avoid the name, and refer to such constructions as common case. Because the term *Acc-ing* seems to have gained wide acceptance in current syntax, I will adopt it here.
5. In Chomsky's more recent work (1980) there is no rule of Equi NP Deletion. The subject position of the embedded clause contains an empty category PRO which carries person, number, tense, but cannot be governed, nor carry case marking.
6. Sentences of the form NP-V-NP-to-be-being-VPed, (*I saw John to be being helped*), occurred in Old English, (Visser 1973). Only later do constructions such as *I saw John being helped* occur, the constituent *to-be* having been deleted.
7. The preposition *in* also occurs, and gains further ground through the influence of French *en* constructions which were borrowed into English.
8. Callaway shows that literal translations of Latin into Old English show a significantly higher proportion of the appositive participle construction than Old English texts which are either free translation or original literature. Latin has an appositive participle which could have provided a model for the English, *femina clamans discessit* (the woman, shouting, departed). The following figures are compiled from Callaway (1901).

Distribution of Appositive Participles in Old English Literature

	<u>N</u>	<u>%</u>	
free translations/native	43	15	compiled from Callaway 1901
literal translations	241	85	
	<u>281</u>	<u>100</u>	

9. The tape-recorded British speech shows a lower percentage, 5%. This result was also compared to another set of historical data (Houston 1983), which showed that the formality of genre as well as the factor of writing versus speech, contributed to the relative frequency of these forms.

6.0 Establishing the Continuity between Past and Present Morphology

6.1 Historical Data Base

In this chapter the historical data from late Middle and early modern English are discussed in terms of the possibility of locating an orthographic correlate to the modern variation. The corpus used in this chapter is composed primarily of letters and diaries. The nineteenth century sample includes data from dialogue in humorous fiction. The sample from the fifteenth to the seventeenth centuries reveals significant orthographic variation, and these data form the basis of establishing a link between past and present. The data from the eighteenth and nineteenth centuries, although exhibiting more regular spelling, are valuable for establishing the relative frequencies of the grammatical categories over time. (The diary of Jeremiah Greenman (1776) and the dialogue from *The Clockmaker* (1836) are works contained in this corpus which do show occasionally the non-standard spelling <in>. Appendix F gives the complete references for the historical data.

6.2 Distribution of External Factors

Table 6.1 shows the distribution of the data according to age. In most cases the exact age was known, in other cases I approximated the age, based on external evidence, e.g. on the basis of the known age of their children or other relatives. I divided age into three categories, young (under 30), middle aged (30–50) and old (50+).

Table 6.1
Distribution of Historical Data by Age of Writer

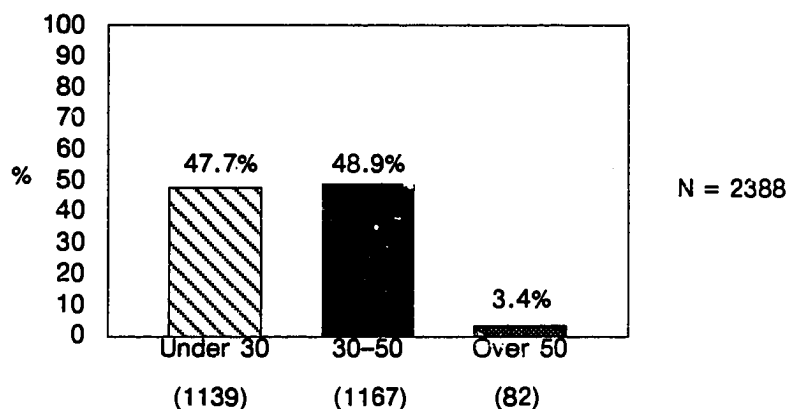
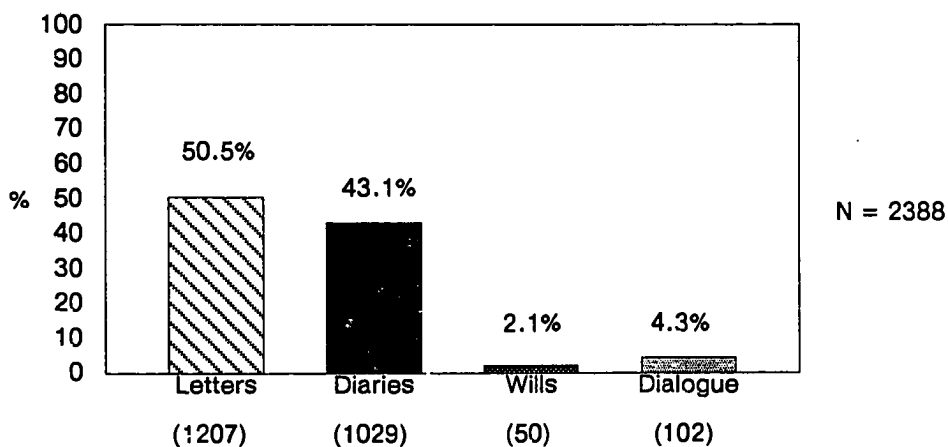


Table 6.2 shows the distribution of the data according to genre.

Table 6.2
Distribution of Historical Data by Genre



The distribution of the data by gender is not uniform across the centuries. The data contain samples from women's writing for the fifteenth century (N = 408) and for the nineteenth century (N = 117). Table 6.3 shows the distribution of data according to gender.

Table 6.3

Distribution of Historical Data according to Gender

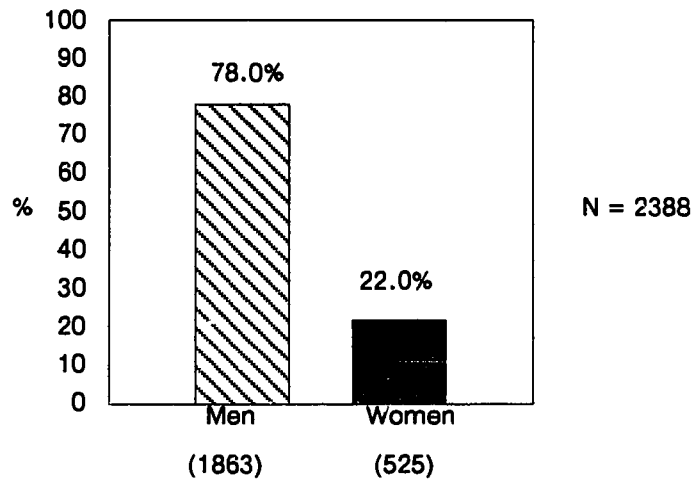
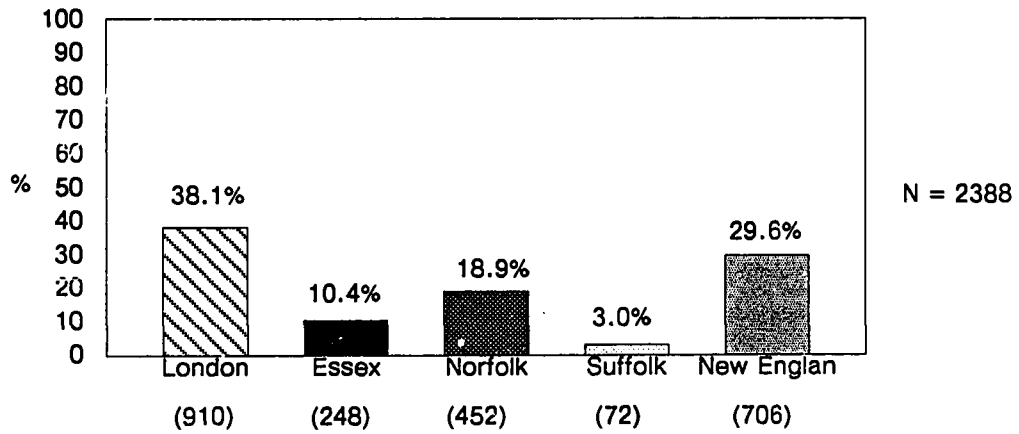


Table 6.4 shows the distribution of the data according to geographical region. These distributions are not uniform across time, e.g. New England is represented only in the nineteenth century.

Table 6.4

Distribution of Historical Data according to Geographical Region



6.3 The Dependent Variable as Presence or Absence of Final <g>

The dependent variable which is phonologically defined for the synchronic data, i.e. /n/ vs /ŋ/, is defined by orthography for the historical data. The initial assumption I made was to treat forms without a final velar consonant <g> as non-applications, and forms which did end with a final velar consonant, with or without a following <e>, as applications. This is not the only way of defining the dependent variable orthographically, as will be shown in Section 6.4 below.

In fact, as the following discussion will show, the variation between spelling forms with or without final <g> is not significant. This may be due in part to the emerging standardization of writing conventions during this period of the language's history. Yet I will show that defining the dependent variable for the historical data by a different criterion does reveal significant patterns of variation.

Figure 6.1 shows the relationship between the division of the historical data according to the morphological origins of *-ing* and the division of the data according to the major modern nominal-verbal categories.

Figure 6.1

**Correspondence Between Old English Morphemes and
-Ing Categories in Modern English**

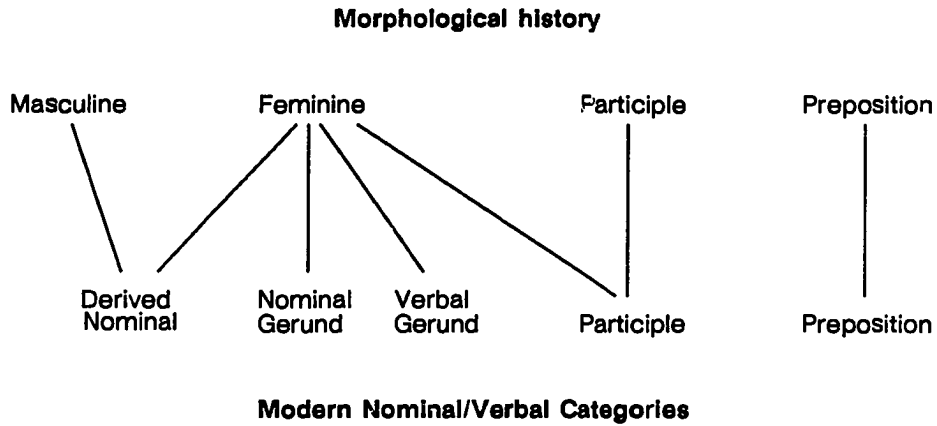


Table 6.5 divides the types of constructions according to their morphological histories; Table 6.6 divides them according to the modern nominal-verbal criteria.

Table 6.5
Presence of Final <g> on Historical -ing
based on Morphological Histories

	15th		16th		17th		18th		19th	
	%	N	%	N	%	N	%	N	%	N
Masculine	91	97	100	5	100	67	100	21	90	10
Feminine	97	384	100	121	100	221	96	78	92	195
Ambiguous	82	17	100	21	100	14	100	76	89	119
Participle	95	196	100	91	100	186	99	121	92	182
Preposition	100	64	100	16	100	27	88	8	100	6
	745		254		515		304		511	

N = 2329

(Note: N is less than 2388 due to eliminating monomorphemic nouns in the genitive case, e.g. *kynges*. I originally collected these to see whether there was orthographic variation in terms of presence or absence of <g>. I did not find any such instances, however.)

KEY

- Masculine:** surnames, place names, common names
Feminine: gerunds, derived concrete nominals, pronominal adjunct modifiers.
evening, morning Acc-ing, complements to NP
Participles: appositive participles, absolute participles, predicate adjectives, pronominal adjunct modifiers, adverbs, periphrastic future, reduced relative clauses, sentential complements
Ambiguous: progressives, verb phrase complements, quasi-progressives
Prepositions: French-based prepositions, *notwithstanding*

Table 6.6

Presence of Final <g> on Historical -ing
 based on Modern Nominal-Verbal Attributes
 15th – 19th centuries

	15th		16th		17th		18th		19th	
	%	N	%	N	%	N	%	N	%	N
Verbal	94	212	100	112	100	200	99	197	91	310
Gerunds	96	306	100	110	100	203	96	67	93	163
Nominal	95	166	100	16	100	85	100	32	90	42
Prepositions	100	64	100	16	100	27	88	8	100	6
	745		254		515		304		511	

N = 2329

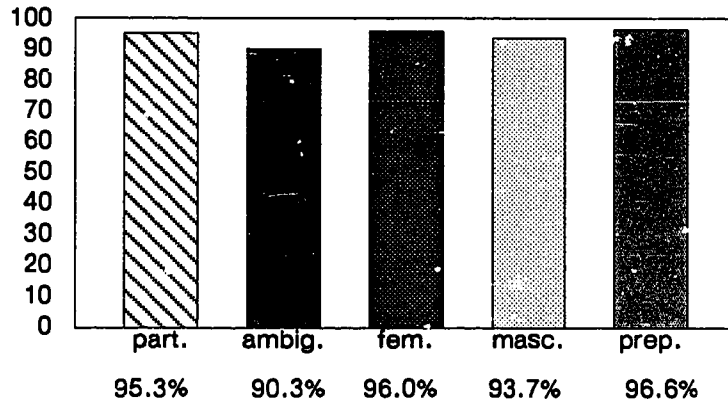
Key

- Verbal: finite and non-finite participles, predicate adjectives, pre and post-nominal modifiers (+part), verb phrase complements
- Gerunds: nominal and verbal gerunds, Acc-ing, complements to NP prenominal adjunct modifiers,
- Nominal: proper names, monomorphemics, derived concrete nominals any/every/some/nothing
- Prepositions: French-based prepositions, *notwithstanding*

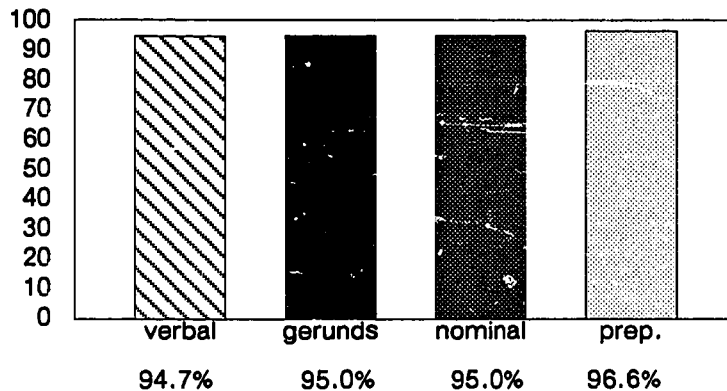
The grouping of categories above is not identical to the grouping shown in Chapter Four. The difference lies in the grouping here of finite and non-finite participles together. The distributions of categories across time is not the same, e.g. the occurrence of finite participles before the nineteenth century is not great. Many of the non-finite categories do not occur frequently in the historical data, e.g. sentential complements and verb phrase complements. If the non-finite participles are grouped with the gerunds, the percentages are not changed significantly for the above data.

The categorical results shown above for the sixteenth and seventeenth century samples do not necessarily indicate categorical velar pronunciation, but rather the conventionalization of writing. The emergence of variation again during the eighteenth century (with apostrophe <in'>), suggests that these spelling variants may carry evaluative meaning. In all of the non-applications of the nineteenth century sample, the data are taken from fictional writing portraying dialect. (1)

Table 6.7
Percentage of Final <g> in Historical Data
A
Morphological History



B
Modern Nominal-Verbal Attributes



Contrasting the occurrence of final <g> under A between masculine forms and the participle forms gives a chi square of only 2.1715, not significant at .05. Comparing the occurrence of final <g> between the verbal and nominal categories under B gives an even lower chi square of .0123. This is nowhere near the difference observed between the verbal and nominal categories reported in Chapter Four, Table 4.9.

There is the further problem that, with respect to time, there is no observed regularity. In other words the data above are taken from disjoint time periods, since the data between them showed categorical presence of final <g>.

6.4 The Dependent Variable as Presence or Absence of Final <a>

An alternative in examining the dependent variable in the historical data is to look at other differences in the orthography. The two relevant dimensions here are the representation of the vowel preceding <ng>, and the presence or absence of a final <e> following <ng>.

The variation of the orthography of the vowel preceding <ng> does not reveal any significant variation with respect to patterning according to grammatical categories.

	<y>		<i>		<e>	
	N	%	N	%	N	%
nominals	182/659	27.6	339/803	42.2	3/12	25.0
gerunds	113/659	42.2	109/803	13.6	2/12	16.7
prepositions	67/659	10.2	40/803	5.0	0/12	0.0
verbals	297/659	45.1	315/803	39.2	7/12	58.3
		100		100		100

Table 6.9 shows the occurrences of final <e> in the data according to the morphological history of the forms, and Table 6.10 shows it according to the nominal-verbals continuum. Because final <e> has disappeared from the orthography completely by the eighteenth century in these data, only the fifteenth through the seventeenth centuries are represented.

Table 6.9
 Percentage of Final <e> in Historical Data according to
 Morphological History
 15th – 17th centuries

	%	N
Masculine	7.8	167
Feminine	9.4	716
Ambiguous	1.9	472
Participle	2.5	52
Preposition	5.6	107
	1514	

Comparing the distribution of final <e> for the masculine and participial forms, chi square = 9.0168 $p < .001$. The ranking of percentages is not quite regular however, since the verbal nouns show a slightly higher percentage of application than the masculine forms. The groupings in Table 6.10 are the same as shown in Table 6.6 above, for the reasons discussed there. This is further justified by the fact that with respect to final <e> gerunds and non-finite participles do not show the same percentage; appositive participles showed only 2.5% application of <e> for the fifteenth through the seventeenth century, whereas gerunds showed 7.8% for the same time span.

Table 6.10
 Distribution of Final <e> for Historical Data according to
 Modern Nominal-Verbal Attributes
 15th – 17th Centuries

	%	N
Nominal	13.0	264
Gerunds	8.0	619
Verbal	2.0	524
Prepositions	6.0	107
	1514	

Key

- Verbal:** finite and non-finite participles, predicate adjectives, pre and post-nominal modifiers (+part), verb phrase complements
- Gerunds:** nominal and verbal gerunds, Acc-ing, complements to NP prenominal adjunct modifiers,
- Nominal:** proper names, monomorphemics, derived concrete nominals any/every/some/nothing
- Prepositions:** French-based prepositions, *notwithstanding*

In Table 6.10 the ranking between nominal and verbal categories displays the continuum observed in Chapter Four that was shown for the spoken data. Comparing the nominal and verbal categories for presence of final <e>, chi square = 32.0585, $p < .001$. It is clear that the presence or absence of final <e> in the historical data provides a much stronger historical link to the observed modern grammatical effect on (ING), than does the presence or absence of final <g>.

The grammatical effect is not manifest clearly in the case of gerunds in the historical data, as shown in Table 6.11.

Table 6.11

Percentage of Final <e> in Historical Data according to
Nominal-Verbal Attributes of Gerunds
15th - 17th Centuries

	<u>%</u>	<u>N</u>
Nominal Gerunds	7.4	377
Verbal Gerunds	8.8	125
Ambiguous	6.7	60
		<u>562</u>

Table 6.11 shows the percentage of final <e> according to whether the gerund is nominal or verbal. (See Section 3.4.1.4 for the syntactic differences between these). The

third category represents examples whose context could not disambiguate between nominal and verbal gerund.

A comparison of the percentage of final <e> for nominal and verbal gerunds gives a chi square of only .2470, not significant at .05. If the percentage of final <e> for these constructions is examined by century (15th – 17th), no consistent trend can be observed which shows the nominal–verbal effect.

Table 6.12
Percentage of Final <e> by Century according to Type of Gerund
(15th – 17th Centuries)

	15th	16th	17th
Nominal gerunds	2.0	33.0	2.0
Verbal gerunds	0.0	0.0	11.0
Ambiguous	3.0	15.0	7.0

In contrast, if the syntactic position of the gerund is taken into account, significant differences occur in the percentage of final <e>.

Table 6.13
Percentage of Final <e> according to Syntactic Position of Gerund
(15th – 17th Centuries)

	%	N
subject	25.4	59
object	9.6	94
oblique	4.9	410
	N = 563	

A comparison between the percentage of final <e> for subject and oblique position gives a chi square of 35.4474, $p < .001$. Comparing the percentages of final <e> for subject and object positions gives a chi square of 6.8848, $p < .05$. Table 6.14 shows the distribution of final <e> for these data by century.

Table 6.14

Percentage of Final <e> by Century according to Syntactic Position of Gerunds

	15th	16th	17th
subject	0.0	52.0	25.0
object	4.0	27.0	5.0
oblique	2.0	17.0	5.0

The data for the fifteenth century show a marked deviation from the overall trend, with subject position showing a much lower percentage of final <e> than either object or oblique position. This exception to the general pattern is due to the difference between dialects as shown in Table 6.15.

Table 6.15

Percentage of Final <e> on Gerunds according to Dialect Region

	subject	object	oblique	
London/Essex	24.0 (62)	15.0 (59)	8.0 (257)	N = 563
Norfolk/Suffolk	0.0 (17)	0.0 (32)	0.0 (136)	

Although final <e> is completely absent from the gerunds from the Norfolk and Suffolk materials, it does occur in 2.0% of the nominal categories for these two regions. Most of the data from the fifteenth century are taken from Norfolk and Suffolk materials, and the data for the sixteenth and seventeenth centuries are taken completely from London materials.

Table 6.16
Distribution of the Historical Data by Dialect
15th – 17th Centuries

	London	Essex	Norfolk	Suffolk	
15th c.	.01%	35.5%	61.2%	3.2%	
16th c.	100%	–	–	–	N = 1514
17th c.	100%	–	–	–	

Note: This table includes gerunds, participles, nouns, prepositions

The probabilities for the historical data (15th – 17th centuries) according to geographical region, grammatical category and syntactic position of gerund are shown in Table 6.17. Table 6.17 compares two successive analyses for these dimensions.

Table 6.17

Applications of Final <e> for Historical Data according to Dialect,
Grammatical Category and Syntactic Position of Gerund
(15th – 17th centuries)

	RUN 1			RUN 2			
	p	%	N	p	%	N	
Nominals	.69	13	264	.71	13	264	
Gerunds	.57	8	619	.55	8	619	
Prepositions	.48	6	107	.49	6	107	
Participles	.27	2	524	.26	2	524	
Subject	.68	25	59	.66	25	59	
Object	.50	10	94	.51	10	94	
Oblique	.32	5	410	.33	5	410	
Essex	.81	14	240	Essex/	.77	9	1010
London	.70	8	770	London			
Suffolk	.31	2	53	Suffolk/	.23	1	504
Norfolk	.18	1	451	Norfolk			
			1514			1514	
	Input = .04			Input = .03			
	chi sq./cell = 1.58			chi sq./cell = .57			
	log likelihood = -312.4596			log likelihood = -315.5265			

The difference in the log likelihoods shown in Table 6.17 is significant at .05, but the fit (chi square/cell) is noticeably improved. Map 6.1 shows the geographical proximity of the data sources to each other.

Table 6.18 shows both the grammatical effect and the geographical effect for the distribution of final <e>. This roughly parallels the presence of these two effects shown for the synchronic data in Chapter Four.

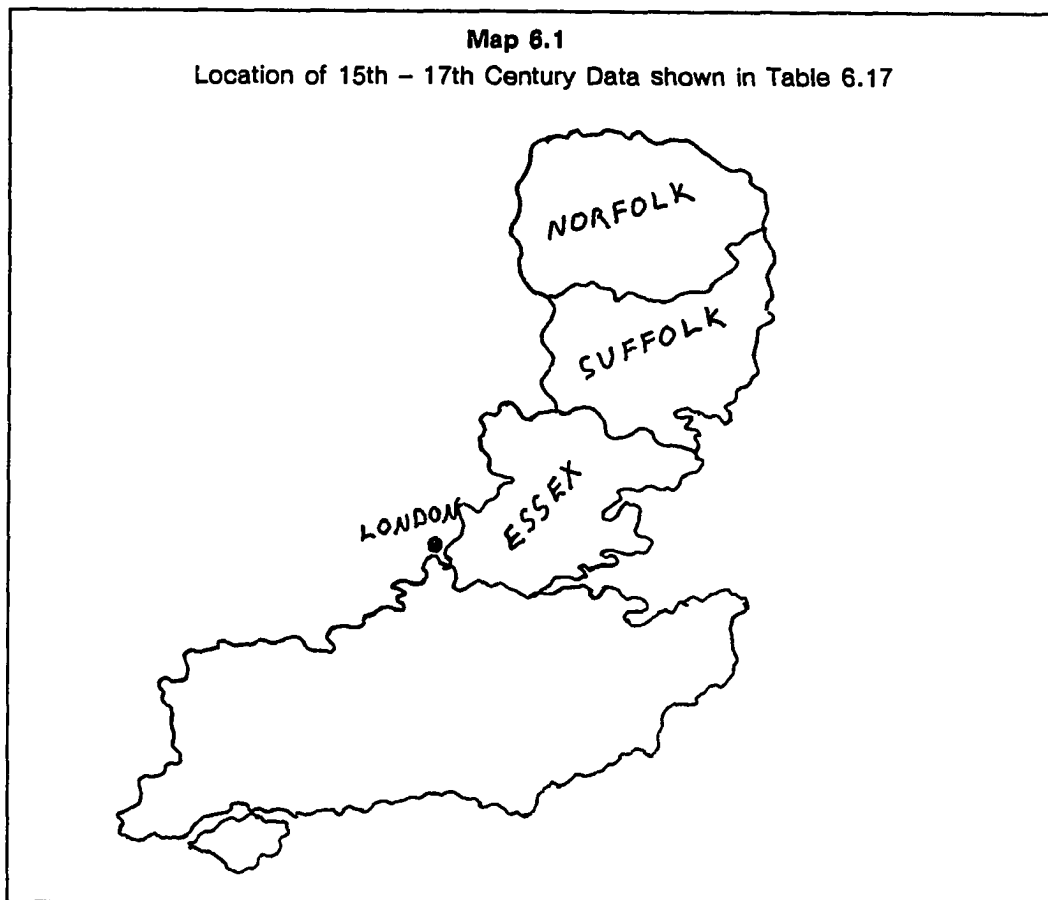


Table 6.18 shows both the grammatical effect and the geographical effect for the distribution of final <e>. This roughly parallels the presence of these two effects shown for the synchronic data in Chapter Four.

Table 6.18

Percentage of Final <e> for London/Essex and Norfolk/Suffolk
according to Grammatical Category

	London/Essex		Norfolk/Suffolk		
Nominal	18.0	(155)	5.0	(109)	N = 1514
Gerund	11.0	(427)	0.0	(192)	
Prepositional	10.0	(52)	0.0	(45)	
Participle	4.0	(366)	0.0	(158)	

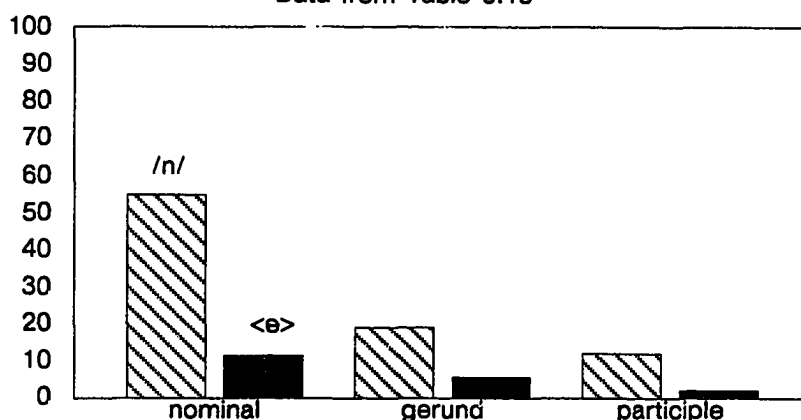
Assuming that London and Essex represent regions falling within the 1450 isogloss, and that Norfolk and Suffolk fall outside it, Table 6.19 compares the percentages of final <e> for the historical data to the percentage of final /ŋ/ for the synchronic data.

Table 6.19

Comparison between Diachronic <e> and Synchronic /ŋ/

	% <e>		% /ŋ/		
Nominals	11.5	(264)	55.0	(320)	
Gerunds	5.5	(619)	19.0	(448)	
Participles	2.0	(524)	12.0	(1469)	
	1407		2339		prepositions omitted
	(15th – 17th cent.)		(20th cent.)		

Figure 6.2
 Comparison of Final <e> and /ŋ/ for Historical Data and Synchronic Data
 Data from Table 6.19



The presence or absence of final <e> therefore appears to provide a clearer indication of a link between the modern grammatical effect observed for (ING) and the historical origins of this effect, than either the orthographic representation of the vowel preceding the nasal of *-ing*, or the variant spelling with final <g>. Given the modern grammatical effect on (ING) variation established in Chapter Four, the variation in final <e> in the historical data would appear to delineate roughly the same dimension between nominal and verbal categories.

6.4.1 Evidence from the Miracle Plays

Further evidence for final <e> being the appropriate dependent variable for the historical data comes from a small sample of dramatic verse collected from late Middle and early modern English. I collected data from several of the Miracle Plays, choosing texts which originated in different geographic regions. The plays include the following: N-Towne (northeast Midlands, c.1468), Townley Plays (north Lancashire, c.1450), Chester Plays (c.1400, west Midlands), York Plays (Yorkshire), Norwich Plays (Norwich, c.1570), and the Brome Ms. (Suffolk, c.1470-80). For the complete references of the plays see Appendix F.

Only a small sample from each play was taken, approximately 20 pages of text for each play. In all, a total of 234 tokens of *-ing* in various spellings were collected. The northern plays still show the original participle ending <and>.

(6.1) Nay, John, that is not well *fitand* (Townley Plays, The Surtees Society p. 167)

Table 6.20 shows the probabilities of application of final <e> according to grammatical category, era and geographical region. The number of tokens shown in 6.20 is 185, because Suffolk proved to be a knock-out factor. A knock-out factor occurs when all examples of the data within a certain category occur categorically as one variant or the other. In the case of Suffolk, there were no occurrences of final <e>.

Table 6.20
Application of Final <e> in the Miracle Plays

	p	%	N
nominals	.76	43	35
gerunds	.47	25	101
prepositions	.42	36	11
participles	.33	32	38
East Midlands	.73	53	17
Norfolk	.67	60	25
West Midlands	.64	60	42
York/Lancashire	.09	7	101
early 15th cent.	.53	60	42
late 15th cent.	.43	14	118
late 16th cent.	.54	60	25
input prob.	.43	30	185

log likelihood = -78.0245

of cells = 15

chi sq./cell = .71

Era proved to be insignificant; deleting it resulted in the log likelihood of -78.0245 . York and Lancashire were significantly different from the other groups at the .001 level.

Although the numbers are small, the grammatical effect reported for the historical prose data is revealed here also. The higher presence of final <e> in the dramatic verse may indicate more conservative language, than the prose, if it is assumed that final <e> is relic case marking. The Norwich plays show a higher incidence of final <e> than the Norwich prose. Yet Suffolk prose and plays show overall a low presence of final <e>, and the northernmost samples from Lancashire and York show significantly less of this variant. Thus, the data from the Miracle Plays are consistent with the general north-south distinction already shown for the synchronic British speech and the historical British prose of the fifteenth through seventeenth centuries.

6.4.2 The Presence of Final <e> and Other Dimensions

The grammatical effect manifested in data from the fifteenth through seventeenth centuries also shown when grammatical category is run against other factors as well, as shown in Table 6.21 below.

Table 6.21

Application of Final <e> according to Etymology, Clause Type, Grammatical Category and Era

	p	%	N	
French	.65	8	392	
Scandinavian	.49	4	55	
English	.48	5	975	
Latin	.37	3	31	log likelihood = -240.2647
nonfinite clause	.57	5	490	chi sq./cell = .84
subordinate clause	.52	7	325	
relative clause	.51	8	95	
main clause	.41	5	543	etymology deleted
nominal	.77	9	207	log likelihood = -241.1318
gerunds	.58	8	620	Not Significant
prepositions	.43	6	107	clause type deleted
verbal	.22	2	519	log likelihood = -240.4186
15th century	.33	3	701	Not Significant
16th century	.80	17	249	
17th century	.34	3	503	era deleted
				log likelihood = -271.3781
				Significant .001
input prob.	.09	6	1453	

The distributional facts of final <e> raise the question of whether such a spelling difference reflected a difference in pronunciation in the language. One possibility is that there was such a difference in pronunciation manifested between participles on the one hand, and nominals derived with the masculine and feminine suffixes on the other. The parallel patterns displayed above in Figure 6.2 support the view that such a difference between the participle and the derived forms did exist, and is related to the modern variation, even though the morphology associated with *-ing* has undergone a metamorphosis,

A more difficult question is to determine on the basis of spelling variants, what the difference in pronunciation actually was. Does the presence of a final <e> indicate that

the *-ing* suffix was pronounced with a final velar nasal? Conversely, does its absence indicate a final apical nasal? Related to this question is the further issue of whether or not final <d> was pronounced on the suffix of the present participle.

Related to these questions is the issue of whether final <e> in the data above is a relic of Middle English case marking, and if so, whether it survives only in writing at this late date, or still reflects patterns in speech.

These issues are the topic of the following sections. The discussion will include data which represent earlier periods of the language, when spelling variants were more diverse, and the conventions of modern spelling had not been established.

6.5 Final <e> and the Case System of Old and Middle English

It has been pointed out many times that one of the most fundamental differences between Old and Modern English is the presence of a well-developed case system in the former, and its noticeable absence in the latter, (Moore 1963), (Lightfoot 1979) (Traugott 1972a).

By the beginning of Middle English (c.1150) the case system had been considerably reduced from that of Old English. In the following discussion, based on Moore (1963), the function of final <e> as a Middle English case marker is considered, as well as its relation to its Old English predecessors. The examples below are all taken from Moore (1963).

6.5.1 Etymological Final <e>

In Middle English there are a number of noun classes which occur with final <e>.

A. Nouns

1. Nouns in Old English which ended in a/e/u.
tīma → *time* 'time'
2. Nouns descended from the Old English feminine declensions which ended in a consonant.
rest → *reste*
3. Some Old English nouns which ended in *-en*, lose the final nasal
maegden → *mayde* 'maid'
4. Some nouns borrowed from Old French retain the final <e> in Middle English
corage → *corage* 'courage'
5. Nouns from Old English which retained their dative case in a petrified form, a fixed expression.
ouȝ of towne

B. Adjectives

1. Adjectives which were derived from Old English adjectives whose stems ended in <e>.
hleane → *lene* 'lean'
2. The comparative form of a few adjectives.
mara → *mare* → *more* 'more'
3. The dative of Old English in a fixed expression
with-alle
4. Adjectives derived from Old French ones.
estrange → *straunge* 'strange'

C. Pronouns

1. Old English pronouns ending in <e> variably retained the <e>.
ure —> *ours* - *our*
hire —> *here* - *her* - *hire* 'her'

D. Adverbs/Prepositions/Conjunctions

1. Adverbs derived from adjectives
faire from *fair*
2. Adverbs, prepositions and conjunctions which in Old English ended in a vowel.
sove —> *sove* 'soon'
3. Adverbs, prepositions and conjunctions which in Old English ended in *-an*.
biforan —> *bifore* 'before'

6.5.2 Inflectional Final <e>

Moore lists a number of verb forms in Middle English which manifest a final <e>.

A. Present Tense Singular

1. Indicative (strong and weak verbs) *ride*, *luvie*
Subjunctive (strong and weak verbs) *bunde* (bind), *luvede*
Imperative singular (weak verbs) *luve*

B. Past Tense Singular

1. Indicative 1st and 3rd person (weak verbs) *luvede*
Indicative 2nd person (strong verbs) *ride*
Subjunctive (strong and weak verbs) *luvede*, *ride*

C. Non-finite

1. Present participle (strong and weak verbs) *ridende*, *luviende*
Inflected infinitive (monosyllabics) *to luviene*, *to bindenne*

(Verb Forms taking either final <e> or final <en>)

D. Present Tense Plural

1. Indicative (strong and weak verbs) *luve(n), ride(n)* (Midlands)
Subjunctive (strong and weak verbs) *ride(n), luvie(n)*

E. Past Tense Plural

1. Indicative (strong and weak verbs) *luvede(n), ride(n)*
Subjunctive (strong and weak verbs) *luvede(n), binde(n)*

F. Non-finite

1. Past participles (strong verbs) *ride(n)*

G. Modifiers

1. Adjectives in Middle English corresponding to Old English weak adjectives received final <e>
2. Definite articles, demonstratives and possessive pronouns all received final <e> in Middle English.

6.5.3 Inorganic Final <e>

In addition to the examples above there are words in Middle English which manifest a final <e>, even though the corresponding form in Old English did not possess this.

hiw —> *hewe* 'hue'

6.5.4 Scribal Final <e>

Moore also lists what he calls *scribal <e>* in which it is assumed that the letter was never pronounced, but is written to add orthographic symmetry, for example in poetry, (see Moore 1963). One such example is the word *manne* rhymed with *beganne*; Moore states that in the first example there is no evidence to assume that the final <e> was ever pronounced.

From the examples above it is clear that final <e> played a diverse role in Middle English. The difference in distribution of final <e> for the data discussed earlier in this chapter suggests that the role of final <e> as an inflectional marking on participles is diminished in contrast to its role as an inflectional marking with derived nouns. As a marker of inflection with nominals, final <e> is the relic of the case system which distinguished five cases in Old English: nominative, accusative, dative, instrumental and genitive. There were six basic paradigms in Old English; the strong

masculine, feminine and neuter, and the weak masculine, feminine and neuter. The basic patterns are summarized below in Figure 6.3

Figure 6.3
Paradigms for Old English Nouns

	Nom.	Acc.	Dat.	Inst.	Gen.	
	Singular					
strong masculine	bat	bat	bate	bate	bates	
strong feminine	glof	glofe	glofe	glofe	glofe	
strong neuter	scip	scip	scipe	scipe	scipes	
weak masculine	mona	monan	monan	monan	monan	
weak feminine	eare	eare	earan	earan	earan	
weak neuter	sunne	sunnan	sunnan	sunnan	sunnan	
	Plural					
strong masculine	batas	batas	batum	batum	bata	
strong feminine	glofa	glofa	glofum	glofum	glofa	
strong neuter	scipu	scipu	scipum	scipum	scipa	
weak masculine	monan	monan	monum	monum	monena	
weak feminine	sunnan	sunnan	sunnum	sunnum	sunnena	
weak neuter	earan	earan	earum	earum	earena	
	'boat'	'glove'	'ship'	'moon'	'ear'	'sun'

The derived nouns in *-ing* were historically inflected like strong feminine and strong masculine nouns, not weak feminine or masculine.

6.6 Data from Irwin's Study of *-ING*

In this section I would like to examine data reported in an earlier study on the history of the *-ing* suffix, (Irwin 1967). In this study Irwin examined approximately 800 pages of prose texts representing 800 years beginning in the eighth century down to and including the fifteenth century. This represents approximately 100 pages of prose

material examined for each century. Irwin lists the spelling variants for the verbal nouns and the present participle for this time period.

Table 6.22 shows the distributions of Irwin's data which I compiled from her discussions and summaries in her thesis.

Table 6.22

Distribution of Masculine Nouns, Feminine Nouns and Present Participles
in Old, Middle and early Modern english
(compiled from Irwin 1967)

	masc.	fem.	masc./fem.	part.	Total
8th cent.	9	48	—	80	137
9th cent.	0	7	—	9	16
10th cent.	19	76	—	70	165
11th cent.	28	168	—	144	340
12th cent.	21	134	—	116	271
13th cent.	—	—	121	86	207
14th cent.	—	—	191	104	295
15th cent.	—	—	221	149	370
	433	77	533	758	1801

The third column *masc/fem* indicates the loss of gender distinction between the original masculine and feminine nouns. Table 6.22 shows this to be during the twelfth century. The sample for the ninth century is small because it is taken from glosses, the only prose materials Irwin found available. The data are taken from a number of Old and Middle English dialects. Table 6.23 below shows the range of dialects covered in the Irwin data. (For a complete listing of the texts included in Irwin's study see Appendix F).

Table 6.23

Range of Dialect Sample in Irwin's Data : 8th – 15th Centuries
(compiled from Irwin 1967)

	8th	9th	10th	11th	12th	13th	14th	15th
Old English								
Mercian	2	2						
Mercian-Kent		7						
Kent		3					1	
West Saxon		3	5	9	8	1		
Surrey			1					
Middle English								
NE Midlands					1			
Northern					1			2
East Midlands						2	3	4
West Midlands							1	
Southwestern						3	1	
Southern							3	1
uncertain							1	

Note: The numbers indicate the number of sources for each century

Tables 6.24–6.27 below, also compiled from Irwin (1967) display the major spelling variants for the data above, by century.

Table 6.24

Major Spelling Variants for Feminine Nouns: 8th – 12th Centuries
(compiled from Irwin 1967)

	ung(e)	iung(e)	ong(e)	óng	ing(e)	yng(e)	eng(e)	ig	in
8th cent.	36	6	–	–	6	–	–	–	–
9th cent.	5	–	2	–	–	–	–	–	–
10th cent.	61	2	–	2	8	–	2	1	–
11th cent.	105	–	–	–	59	–	–	4	–
12th cent.	113	–	1	–	17	1	–	1	1
	302	8	3	2	90	1	2	6	1

N – 415

Table 6.25

Major Spelling Variants for Masculine Nouns : 8th – 12th Centuries
(compiled from Irwin 1967)

	<u>ing</u>	<u>ling</u>	<u>ong</u>	<u>ung</u>	<u>ig</u>	<u>in</u>
8th cent.	7	2	-	-	-	-
9th cent.	-	-	-	-	-	-
10th cent.	16	-	3	-	-	-
11th cent.	14	4	-	-	-	-
12th cent.	16*	4	-	1	-	-
	53	10	3	1	0	0

N = 67

* One instance of <ing> actually represents a noun which conventionally ended in <ig>, another instance of <ing> represented a noun conventionally ending in <in>.

Table 6.26

Spelling Variants for Masculine and Feminine Nouns
13th – 15th Centuries
(compiled from Irwin 1967)

	<u>ung</u>	<u>ing</u>	<u>eng</u>	<u>yng</u>	<u>ig</u>	<u>yg</u>	<u>in</u>
13th cent.	29	73	16	-	-	-	-
14th cent.	21	77	-	88	2	2	-
15th cent.	56	-	165	-	-	-	-
	50	206	16	253	2	2	0

N = 529

Table 6.27

Spelling Variants of the Present Participle: 8th – 15th Centuries

(compiled from Irwin 1967)

	inde	iende	ende	ande	aende	ynde	unde	onde	en	in	yng	ing
8th cent.	1	–	71	–	8	–	–	–	–	–	–	–
9th cent.	–	–	7	–	–	–	1	–	–	1	–	–
10th cent.	–	1	63	–	–	–	–	–	–	–	–	–
11th cent.	–	27	114	–	–	–	–	1	1	1	–	–
12th cent.	2	17	94	1	–	–	–	1	1	–	–	–
13th cent.	32	21	31	2	–	–	–	–	–	–	–	–
14th cent.	34	–	–	54	–	12	–	–	–	–	1	–
15th cent.	–	–	1–enge	64	–	1	–	–	–	–	60	23
	69	66	380	121	8	13	1	2	2	2	61	23

N = 748

Note: 42 tokens are missing from original 1801, these constitute occasional spellings which I excluded from the above. Tables 6.24, 6.25, 6.26 and 6.27 = 1759.

The tables above show a noticeable absence of <in> as a variant for the verbal nouns and masculine concrete nouns. There is only 1 of these in contrast to another variant, <ig> of which there are 8 instances. Although 4 instances of <in/en> occur for the present participle, this variation is overshadowed by the greater variation found in the vowel preceding the nasal of the suffix.

Table 6.25 above gave a broad view of the orthography of the feminine verbal nouns. The following summary in Table 6.28 shows the orthographic variations in finer detail, (compiled from Irwin 1967). Here also, the data from the thirteenth through the fifteenth century represent tokens no longer distinguishing between the original Old English masculine –ing and feminine –ung suffixes.

Table 6.28

Orthographic Variants of the Verbal Noun: 8th – 15th Centuries
(compiled from Irwin 1967)

	8th	9th	10th	11th	12th	13th	14th	15th
ung	17	2	15	20	19	6	–	–
ungV	6	3	48	85	94	18	21	–
ong	–	1	–	–	1	–	–	–
onge	–	1	–	–	–	–	–	–
iung	2	–	1	–	–	–	–	–
iungV	2	–	2	–	–	1	–	–
ing	4	–	2	43	6	13	10	21
ingV	1	–	6	15	8	62	58	35
iinge	–	–	–	–	–	–	1	–
iyng	–	–	–	–	–	–	2	–
yyng	–	–	–	–	–	–	5	–
yyng	–	–	–	–	–	–	2	–
yng	–	–	–	–	1	–	41	78
yng	–	–	–	–	–	–	36	87
enge	–	–	1	–	–	3	–	–
ienge	–	–	–	–	–	14	2	–
ieng	–	–	–	–	–	–	4	–
eyng	–	–	–	–	–	–	1	–
ug	–	–	1	–	–	–	–	–
ig	–	–	–	4	1	–	–	–
ige	–	–	–	–	–	–	3	–
un	–	–	–	–	1	–	–	–
in	–	–	–	–	–	1	–	–
en	–	–	–	–	–	–	1	–

(Note: the symbol 'V' at the end of suffixes stands for the presence of a case marker, whether it is <e> <a> or <um>. The presence of a final <e> following the suffixes indicates that only final <e> occurred in the data for those cases.)

Table 6.28 shows the gradual replacement of <ung> with <ing> and the later appearance of <yng>. The greatest variation in spelling forms occurs during the fourteenth century, a century after the loss of gender distinction between masculine and feminine nouns. The variation in vowel orthography cannot be wholly attributed to differences in scribal practices for different regional dialects. (2)

6.6.1 The Presence of Final <e> in Irwin's Data

Table 6.28 above presented detailed information on the vowel preceding the nasal of *-ing*. However, the final vowel is not <e> in every case. In the preceding discussion it was seen how the endings found after the *-ing* suffix originally represented the case system of Old English. In Irwin's data the endings are <e> for singular accusative, <a> for plural nominative/accusative, and <um> for plural dative/instrumental. Yet <e> gains in relative frequency until, by the thirteenth century, it is the only surviving ending. (3)

The fact that final <e> has expanded to mark cases originally marked by <a> or <um> is illustrated by the occurrence in the twelfth century sample of two plural subjects which take final <e>. Plural nominatives of the strong feminine declension in Old English were originally marked with final <a>. Similarly the dative/instrumentals in the plural, originally marked with <um> take <e> in some instances. (See Irwin 1967, p.111).

In Section 6.3 above it was shown that final <e> by late Middle/ early modern English shows a higher occurrence of the more nominal categories of *-ing* than of the verbal ones. It was also shown that this was not due to other factors such as etymology, and although geographical region influenced this variation, a separate grammatical effect was found also.

In Table 6.29 below the distribution of a final ending, either <e> <a> or <um> is shown for Irwin's data on the verbal nouns. (Note: the masculine nouns from the ninth through the twelfth centuries were excluded, however they show a very similar pattern to the feminine nouns of that same time span.) The data in Table 6.29 are divided into the three syntactic positions of subject, object and oblique object. The complements of genitive constructions and compound nouns (e.g., *leorning-cnihtum*) were kept separately since, in the former, case marking was categorically present, and in the latter, case marking was categorically absent.

Table 6.29

**Percentage of Final Case-marking on Verbal Nouns according to Syntactic Position
9th – 15th Centuries**

(compiled from Irwin 1967)

	subject		object		oblique		genitive comp.		compounds		Total
	%	N	%	N	%	N	%	N	%	N	N
9th cent.*	0	3	100	3	100	1	-	-	-	-	7
10th cent.	0	20	100	17	97	35	100	5	-	-	77
11th cent.	9	41	83	23	100	71	100	8	0	22	165
12th cent.	18	22	97	34	100	67	-	-	0	7	123
13th cent.	84	32	94	34	88	48	100	4	-	-	118
14th cent.	80	51	74	47	67	91	-	-	-	-	189
15th cent.	77	44	43	51	45	114	-	-	-	-	209
	213		209		427		17		29		895

* (the data from the eighth century are omitted because the sources Irwin used were glosses and word lists which did not give the contexts of the verbal nouns syntactically.)

Table 6.29 shows a striking shift of final <æ> from the object and oblique positions to subject position. This pattern is made visually more clear in Figure 6.4 below. This striking effect of syntactic position on the presence or absence of final <æ> is nowhere discussed by Irwin.

Figure 6.4

Representation of Data from Table 6.29
(genitive complements and compounds omitted)

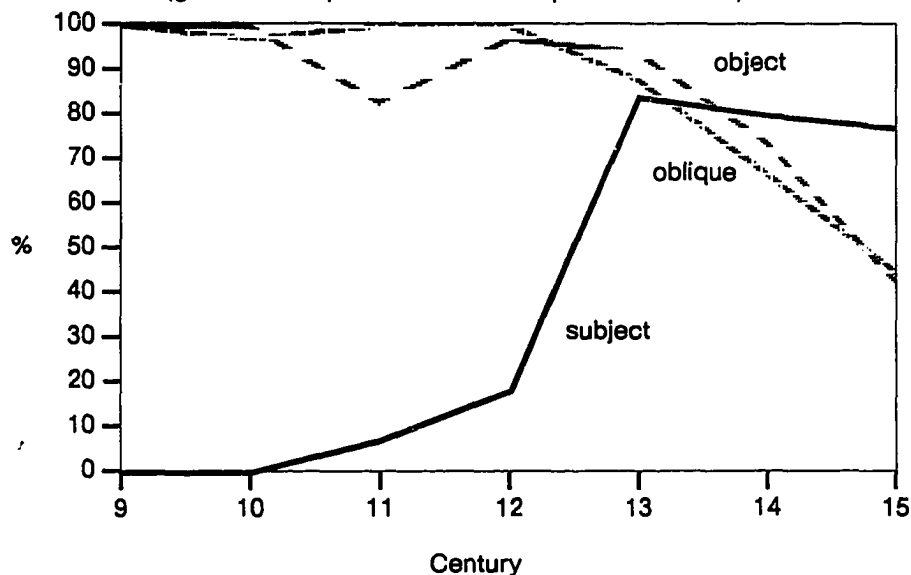


Figure 6.4 shows a cross-over pattern for the distribution of final <e> according to the syntactic position. Prior to the thirteenth century verbal nouns in subject position show a markedly lower percentage of case marking than verbal nouns in object and oblique position.

During the thirteenth century there is a dramatic shift in the distribution of final <e>. At this time as well, other remnant case markings represented by orthography other than <e> have disappeared from the verbal nouns, (Irwin, p. 133). (One instance with *ae* is cited, however, *gemunae*, (Irwin 1967, p. 133). It is during this century as well that the distinction between masculine and feminine nouns derived with *-ing* is lost.

As final <e> expands at the expense of the other original case markings of Old English, its presence eventually no longer serves the function of case-marking. This is shown by the convergence during the thirteenth century of all three syntactic positions in regards to the occurrence of final <e>. Comparing the subject position against object and oblique positions, a chi square of .7847 is obtained for the thirteenth century sample, not

even significant at the .05 level. This lack of distinction continues into the fourteenth century sample where the chi square = 2.1888, again not significant at the .05 level.

Yet as Figure 6.4 indicates, two centuries after the case distinction has been lost, the verbal nouns in subject position are retaining the final <e> more than either of the object verbal nouns. The chi square on final <e> for the fifteenth century sample is 15.1679, significant at the .001 level. This exactly parallels the results shown for gerunds in the data discussed in Table 6.13 above. The fact that results converge from two separately collected data samples adds further support to the conclusion that final <e> took on a new function in the language during the 15th century, at least with respect to the gerunds.

Although it was shown in Table 6.11 above that final <e> does not directly correspond to the nominal/verbal distinction manifest between nominal gerunds and verbal gerunds, I will show here that in fact, nominal traits are associated more with gerunds in subject position than with gerunds in object or oblique position. The two criteria to be discussed are (1) the type of modifier a gerund takes, and (2) the syntactic control of the gerund.

6.7 The Association of Nominal Traits with Syntactic Position of Gerunds

In the historical data collected for this study a number of modifier types appeared before the gerund. These include: definite articles, indefinite articles, quantifiers, adjectives, possessive pronouns, nouns, and no modifier. In modern English, and in the majority of the historical data, articles co-occur with nominal gerunds and not with verbal gerunds. This is categorically true for adjectives. On the other hand, possessive pronouns and nouns co-occur with either type of gerund. Both nominal and verbal gerunds may occur with no preceding modifier. Table 6.30 gives the distributions for (1) combined determiners, quantifiers and adjectives, (2) pronouns and nouns and (3) no modifiers.

Table 6.30 below shows the distribution of these three groupings of modifier type according to the syntactic position of the gerund they modify.

Table 6.30

Distributions of Modifiers according to Syntactic Position of Gerund
15th -19th Centuries

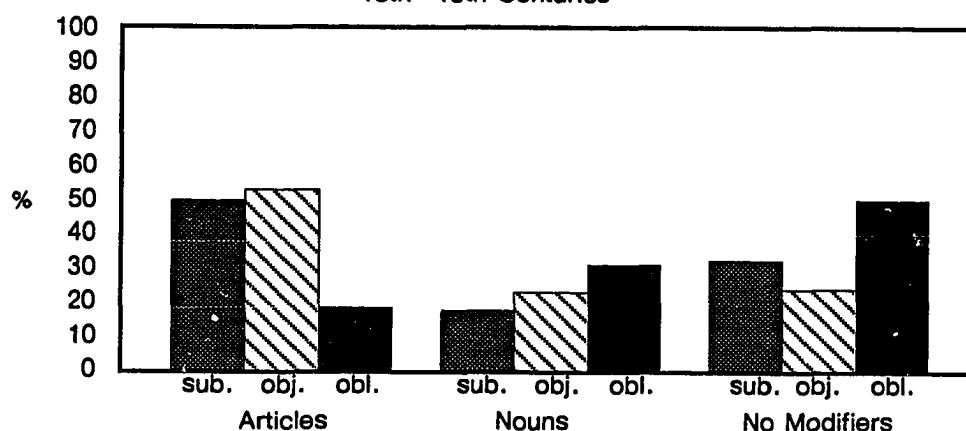


Table 6.31

Data Shown in Table 6.30

		subject	object	oblique	
articles	%	50.0	53.1	18.6	
adjectives	N	37	60	102	
quantifiers					
pronouns	%	17.6	23.0	31.1	N = 737
nouns	N	13	26	171	
no modifier	%	32.4	23.9	50.1	
	N	24	27	276	

The association of articles and adjectives with subject and object position and the lack of such traits with oblique position is shown clearly in the table above. Comparing the distribution of determiners between subject and oblique position gives a chi square of 17.7683, $p < .001$. Conversely, pronouns and nouns are associated somewhat more with oblique position than with subject position, chi square = 5.7367, $p <$

.02. The absence of any modifier is associated more strongly with oblique than with subject position, chi square = 8.2315, $p < .005$.

That modifiers such as articles and adjectives are more nominal than possessive pronouns and nouns rests on the fact that, apart from gerunds, determiners and quantifiers co-occur with nouns, and are never present with other verbal constituents.

the house/ a house/ many houses
*the be going/ *a was going/ *some to go

Although pronouns and nouns in the genitive case do co-occur with nouns, they also co-occur with verbal elements as well, although not in the genitive case. Possessive pronouns and nouns parallel subjects with respect to their function in the sentence or phrase, both carry person and number.

John's going – John was going
her singing – she was singing

With respect to no modifier, it is unclear why this should be associated more with oblique position than with subject position. One account, however, is simply that this is the indirect result of the fact that subject position tends to co-occur with a modifier.

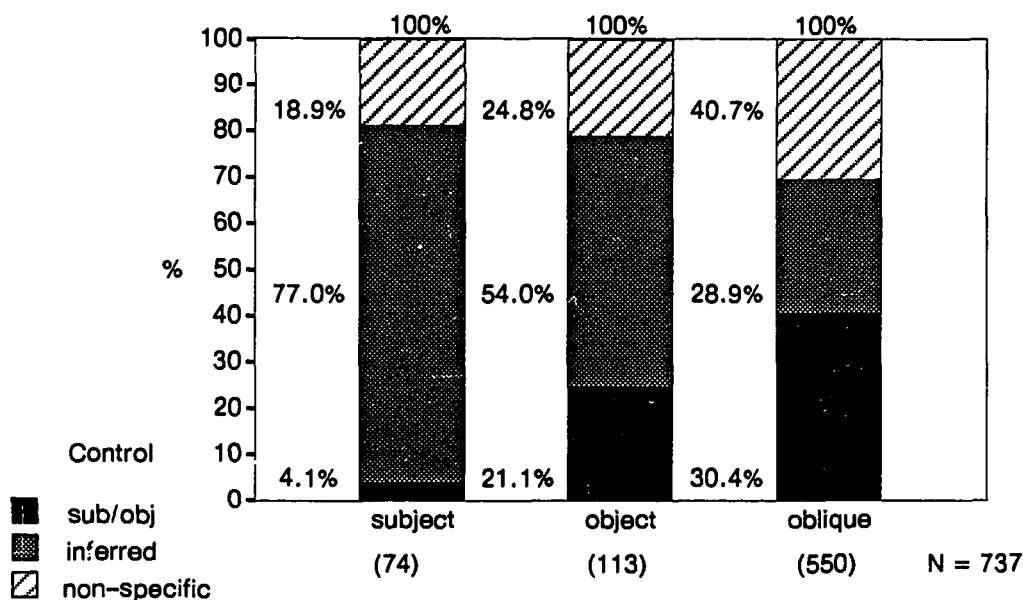
The interpretation of the gerund's agent, i.e. who performs the action described by the gerund, may be controlled either by the preceding subject or object, or may be inferrable from the discourse context, or it may be unspecified. Some syntacticians (Wasow and Roeper 1972) and Thompson (1973) have argued that control is directly connected to the nominal or verbal status of the gerund, i.e. whether it is interpreted as a nominal or verbal gerund. (See Chapter Three, Section 3.4.3 for a discussion of the definition of *control*).

(6.2) I like singing (singing controlled by subject) —>
I like singing loudly (verbal gerund)

(6.3) I like singing (singing not controlled by subject) →
 I like loud singing (nominal gerund)

In addition to the possibilities mentioned above, there is a fifth which is determined by a possessive noun or pronoun. Because this is identical to the category discussed above, I kept it separate in Table 6.32 below. I grouped subject and object control together, because for each syntactic position, the percentages were close, and also because these two categories both have overt sources of control which are present within the same sentence. In contrast, inferrable and non-specific control represent sources which are either not in the same sentence or not clearly evident. These latter were grouped together.

Table 6.32
 Distribution of Syntactic Control for Gerunds according to Syntactic Position
 15th – 19th Centuries



Contrasting the distributions for subject and oblique position with respect to inferred control gives a chi square of 63.7997 $p < .001$. Similarly, contrasting the distributions for object and oblique position with respect to subject/object control gives a chi square of 10.1193, $p < .005$. Control is not wholly independent from determiner type,

since the presence of a definite article implies that the control is either non-specific or inferred. Compare the following examples:

- (6.4) I didn't enjoy *the dancing*
dancing is not controlled by *I*, therefore it is inferred from preceding discourse or non-specific)
- (6.5) I didn't enjoy *dancing*
(without article, *dancing* is controlled by *I*)

Thompson (1973) states that the semantics of the matrix verb contributes to the control reading of gerunds in situations where an article is not present. Thompson states that matrix verbs denoting the private experience of the speaker favor a reading of subject control as shown in (6.6). Verbs more distant in terms of the speaker's immediate experience, e.g. verbs of communication, do not favor such readings, as shown in (6.7).

- (6.6) John *avoided* smoking in his house. (*John* controls gerund)
- (6.7) John *allowed* smoking in his house. (*John* not explicit controller)

The reasons for why subject position should be more nominal than oblique position are not wholly apparent. One possibility is that gerunds in subject position are more fixed than in oblique position; oblique position allows some freedom of movement for the gerund, e.g. it can be fronted. (6.7) illustrates the movement of an oblique gerund, and (6.8) shows the unacceptability of moving a subject gerund.

- (6.8) He made a fortune *by investing in real estate*.
By investing in real estate, he made a fortune.
He made, *by investing in real estate*, a fortune.
- (6.9) *Investing in real estate* made his fortune.
*Made his fortune, *investing in real estate*.
*Made, *investing in real estate*, his fortune.

Recalling Ross's arguments about nouniness (discussed in Chapter Two), the observations here are in accordance, i.e. oblique positions are more flexible, and thus are expected to parallel the more verbal elements on the continuum, whereas subject

positions are more rigid and parallel the more nominal end of the it. This phenomenon requires further research. I would like to return to the issue of case marking and the present participle.

6.8 Case Marking and the Present Participle: Irwin's Data

Given the results in section 6.6 above, I next examined the occurrence of final <e> on the present participles in Irwin's data. Since most of her data occur before the time of the replacement of *-ind* with *-ing*, the data primarily relate to the presence of case marking on the original *-ind* suffix.

Irwin classified her data according to whether the participle was adjectival or was part of a phrasal verb. In the latter case, the only marking after <nd> was <e>, in earlier times (e.g. 8th century) this was often spelled <i>, and corresponds to the common Germanic participle also ending in <i>.

Adjectives in Old English agreed with the noun they modified in case, number and gender. For each gender there are two sets of adjectival endings, strong and weak. Strong endings are used when no preceding determiner, demonstrative or pronoun is present which carries inflectional information; weak endings are used when there is such a preceding determiner, demonstrative or pronoun. The situation parallels that of modern German in which the expression *alter Mann* 'old man' takes a strong adjective, and expresses masculine nominative case. Similarly, Old English paralleled modern German in instances such as *der alte Mann* 'the old man', in which the adjective no longer expresses this information, since it is conveyed by the preceding definite article. The following table summarizes the paradigms for the adjective case marking for three phrases: *the hard stone*, *the wise word* and *the good lore* in Old English.

Table 6.33

Summary of Adjectival Endings in Old English

		Weak	Strong	
Masculine	nom.	se hearda stan	heard stan	singular
	acc.	bona heardan stan	heardna stan	
	dat.	baem heardan stane	heardum stane	plural
	inst.	by heardan stane	hearde stane	
	gen.	baes heardan stanes	heardes stanes	
	nom/acc.	ba heardan stanas	hearde stanas	plural
	dat./inst.	baem heardum stanum	heardum stanum	
	gen.	bara hearena stana	heardra stana	
Neuter	nom.	baet wise word	wis word	
	acc.	baet wise word	wis word	
	dat.	baem wisan worde	wisum worde	
	inst.	by wisan worde	wise worde	
	gen.	baes wisan wordes	wises wordes	
	nom/acc.	bawisan word	wis word	
	dat./inst.	baem wisum wordum	wisum wordum	
	gen.	bara wisena worda	wisra worda	
Feminine	nom.	seo gode lar	god lar	
	acc.	ba godan lare	gode lare	
	dat.	baera godan lare	godre lare	
	inst.	baera godan lare	godre lare	
	gen.	baera godan lare	godre lare	
	nom/acc.	ba godan lara	gode lara	
	dat./inst.	baem godum larum	godum larum	
	gen.	bara godena lara	godra lara	

Table 6.34 shows the distribution of the case markings occurring on the present participle from the ninth through the fifteenth centuries. The figures below in Table 6.34 show only case marking on the participle as it occurs as an adjective, not as a phrasal verb, e.g. *bernynde hokes* 'burning hooks' (Irwin, p. 139), but not *weren walkinde* 'were walking' (Irwin, p. 161).

Table 6.34

Distribution of Case-marking on Adjectival Present Participles in Irwin's Data
9th –15th Centuries

	<e>	<a>	<um>	<ra>	<an>	<na>	<es>
	%	%	%	%	%	%	%
9th cent.	100	–	–	–	–	–	–
10th cent.	80.6	8.3	8.3	–	2.8	–	–
11th cent.	75.7	1.4	10.0	1.4	3.6	7.1	0.7
12th cent.	88.2	1.2	2.4	2.4	4.6	–	1.2
13th cent.	93.2	–	2.7	2.7	–	–	1.4
14th cent.	100	–	–	–	–	–	–
15th cent.	100	–	–	–	–	–	–
	100	100	100	100	100	100	100
	(5)	(36)	(140)	(85)	(74)	(42)	(58)

Again, the loss of all case marking except final <e> can be seen by the fourteenth century. These data do not show participial forms without final case marking. If we compare tokens with any form of case marking against those without, this time including both adjectival and phrasal uses, the pattern in Table 6.35 can be seen.

Table 6.35

Distribution of Final Case-marking versus No Case-marking
on Present Participles in Irwin's Data
(compiled from Irwin 1967)

	Vnd*		and		ng		N = 655
	%	N	%	N	%	N	
9th cent.	100	5	-	-	-	-	
10th cent.	100	70	-	-	-	-	
11th cent.	100	142	-	-	-	-	
12th cent.	100	107	-	-	-	-	
13th cent.	100	86	-	-	-	-	
14th cent.	89	47	0	55	50	2	
15th cent.	100	1	30	56	44	84	
		458		111		86	

*(the V indicates the variants except <and>. e.g. <iende> <ende> <inde> etc.)

It is clear that final <e> throughout the period of the original *-ind* suffix was maintained in the southern dialects. This is consistent with the notion that it was the southern dialects that retained the inflectional system longer than in the north Brunner (1955) argues that the inflections were lost from north to south, district by district.

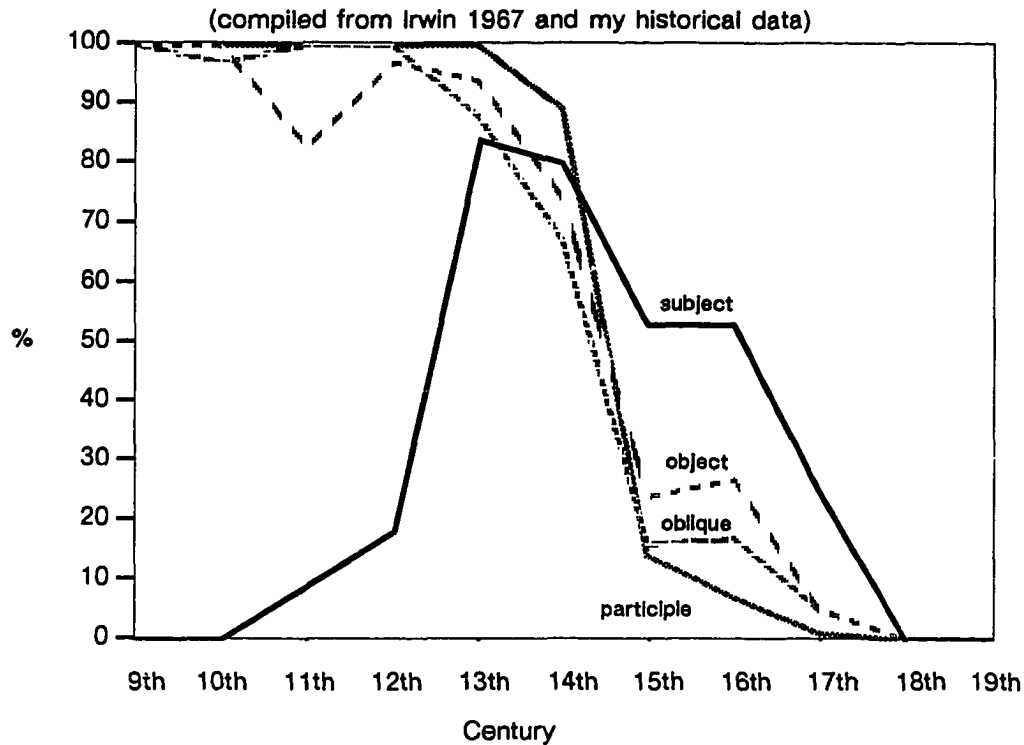
From Tables 6.34 and 6.35, and from the attested loss of case marking it is still difficult to establish on the basis of these alone, whether the final <d> was pronounced throughout this time. One token from the twelfth century sample has the <d> omitted and later corrected interlineally, (Irwin, p.122). Yet all the evidence has shown that the spelling change was uni-directional <nd> going to <ng>, as seen from Tables 6.35, 6.24 - 6.27 above.

Table 6.35 above shows that it is nearly two hundred years after the collapse of final <e> as case marker on the verbal nouns that the present participle adopts the verbal noun ending. The northern <and> data from the fourteenth and fifteenth century sample

remain distinct still, (although the increase in final <e> from 0 to 30% is notable in the fifteenth century sample). In conjunction with this fact we can also see that the retention of final <e> diminishes significantly on the participles at this time – the same time during which the presence of final <e> has begun to indicate a nominal function.

Figure 6.5 below combines the historical data presented in Section 6.4 and Irwin's data presented above and displays the occurrences of final <e> across time for three categories: gerunds in subject position, gerunds in object/oblique position, and present participles. The figures for the fifteenth century represent the combined figures of Irwin's data and my own, since this is one century where the two samples overlap.

Figure 6.5
 Percentage of Final <e> across Time for Gerunds and Present Participles
 according to Syntactic Position
 8th – 19th Centuries



	Century										
	9th	10th	11th	12th	13th	14th	15th	16th	17th	18th	19th
gerunds	7	77	165	123	118	189	504	97	171	56	117
participles ^N	5	36	140	85	74	42	263	105	189	184	267
	12	113	305	208	192	231	767	202	360	240	384
	N = 3614										

(The northern data <and> in Irwin's participles were not included since they represent a different pattern with respect to final <e> as discussed earlier). For my own historical data the group of participles included finite participle and non-finite participles,

excluding verb phrase complements. It also included participial adjectives, to be comparable to Irwin's data.

The decreasing percentage of final <e> for the gerunds in object/oblique position and for the participles during early Modern English, against the greater retention of final <e> on the gerunds in subject position, supports the hypothesis that final <e> had been re-analyzed as a nominal marking.

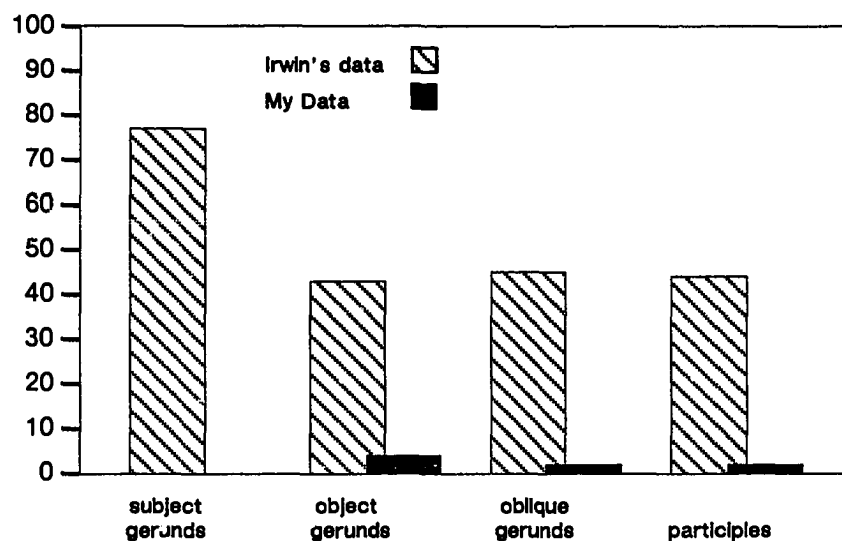
(In using the term *re-analysis* I do not commit myself to the technical meaning of this term as defined in Lightfoot (1979). I mean that a form which had served a previous function within the grammar no longer serves that function, but appears to have taken on a new function, following a period during which no clear function was discernible.)

The difference in occurrence of final <e> that was shown above in Table 6.17 between nominals, gerunds, and verbals further supports the idea that final <e> was a marker of nominal categories, rather than verbal ones.

There is one deviation that must be pointed out for Figure 6.6 above. The data collected for this study for the fifteenth century, when separated out from Irwin's data, shows a much sharper decline in occurrence of final <e>. Figure 6.6 below brings this out.

Figure 6.6

Difference in the Data Samples for the Fifteenth Century



	subject gerunds	object gerunds	oblique gerunds	participles
Irwin	34/44	22/51	51/114	37/84
My Data	0/18	2/51	4/226	3/205

This discrepancy may be accounted for by considering the sources of the data for the fifteenth century. Table 6.17 showed a significant difference between Essex and London on the one hand, and Norfolk and Suffolk on the other. The fifteenth century data collected for this study represent primarily Suffolk and Norfolk data. Norfolk lies almost entirely outside the 1450 demarcation in Map 6.1 above, and Suffolk lies half outside it, whereas both London and Essex are inside.

In addition, Irwin's data for the fifteenth century are primarily taken from East Midlands material. Her northern data for this century (which comprise about 29% of her

fifteenth century sample) are from York and Richard Rolles, but the participles were excluded because they are represented as <and>.

Therefore the marked drop in final <e> for the fifteenth century data shown in Figure 6.7 above can be interpreted as including data from dialects to the north and east of the Moore, Meech and Whitehall demarcation for *-ing*. This interpretation supports the idea that final <e> is an orthographic link to the present day variation of (ING), since not only does it reveal a grammatical effect, but also a geographical one.

The eventual decline of final <e> on the *-ing* suffix is of course a reflection of the conventionalization of the writing system. I will now turn to the issue of what this spelling form can reveal about the pronunciation of the suffixes *-ing* and *-ind* prior to, as well as after, their merging in the southern dialects.

6.9 Stress and *-ing*

It has been assumed by a number of scholars (Langenhove 1925), (Armstrong 1892), (Poutsma 1923), (Wyld 1936) that the suffix of the present participle was unstressed, having a centralized vowel and an apical nasal.

Irwin's data show that <d> is retained on the present participle throughout the time before the participle's ending changes to *-ing*, and in the southern and Midland dialects, final <e> or some other case marking is nearly always present. The idea that there was a confusion between the endings of the present participle and the verbal noun is not supported orthographically in Irwin's data, since the spelling change is clearly uni-directional, nd → ng, and shows a nearly categorical replacement of <nd> with <ng> during the fifteenth century.

It is a difficult issue to resolve whether or not final <d> was pronounced in the language prior to the time *-nd* is replaced by *-ng*. Dobson (1957) suggests the possibility that final <d> did represent a dental which was lost by Middle English, leaving an apical nasal, and that there was a similar process with final <g> representing a velar stop, also lost by Middle English. This would have resulted in /ln/ and /ln/ respectively. Dobson cites

grammars from the late sixteenth and early seventeenth centuries which indicate recognition of /n/ as a phoneme in English for the first time, (Robinson 1617), (Gil 1619), (Hodges 1644) and (Coles 1674).

Such a view would account for the present variation between apical and velar nasals observed for (ING), but still leaves unexplained why the two were set up in variation, and did not survive as categorically distinct morphemes.

If one assumes that both <-ind> and <-ing> represented unstressed syllables with centralized vowels, then there are some grounds for assuming a confusion between them, subsequent to a loss of distinct final consonants. Yet this would lead most naturally to the expectation that /ln/ would become the invariant form for the suffix. In Chapter Four Section 4.6 it was shown that a centralized vowel overwhelmingly favors an apical nasal, not a velar. This view of invariant /ln/ as the historical predecessor to (ING) is expressed by Wyld. (1936) Yet in face of the modern variation Wyld must account for the re-appearance of /ln/.

I will argue that /ln/ was never lost, but actually played a role in the rise of the modern variable (ING). My view differs from Wyld's in that he argues that /ln/ was a relatively late variant (c.1820s) and is completely social in origin, whereas my view is that /ln/ has existed from Old English on, and whose social significance was overlaid on its grammatical significance. (This overlaid effect is the topic of Chapter Eight).

6.9.1 Secondary Stress Patterns in Old and Middle English

Derivative suffixes in Old English were assumed to receive secondary stress if preceded by a long syllable, or its equivalent, when the suffix is followed by an unaccented syllable. (Long syllables in Old English are those which contain either a long vowel or diphthong, or a short vowel followed by two consonants, (Campbell 1959)). The suffixes subject to receiving such secondary stress (or half-stress) include: *-en*, *-end*, *-ere*, *-ig*, *-ing*, *-ung*, *-isc*, *-ness*, and the participial suffix *-ende*, also *-enne* and *-est*, (Campbell 1959).

The following examples illustrate the conditioning on secondary stress,

aebelinges singende

but

cyringes wesende,

because in the first two examples the suffix is preceded by long syllables, and in the second two it is not.

Campbell states further that secondary stress on syllables which, themselves, did not have double final consonants was very light, and these syllables were subject to change and loss in late Old English. By this reasoning we would expect the suffixes listed above to separate into two classes, Column A would have been lost more readily than Column B.

<u>Column A</u>	<u>Column B</u>
<i>en</i>	<i>ung</i>
<i>ere</i>	<i>ing</i>
<i>ig</i>	<i>end</i>
<i>an</i>	<i>isc</i>
	<i>ness</i>
	<i>est</i>
	<i>enne</i>

The form *-an* occurred as both an inflectional ending on the infinitives of verbs (e.g. *lufian*, 'to love', *fedan* 'to feed') and also as the inflectional ending on the weak noun classes for the following cases:

Weak Masculine	singular	acc./dat./inst./gen.	monan – <i>moon</i>
	plural	nom./acc.	
Weak Neuter	singular	dat./inst./gen.	earan – <i>ear</i>
	plural	nom./acc.	
Weak Feminine	singular	acc./dat./inst./gen.	sunnan – <i>sun</i>
	plural	nom./acc.	

These endings werē subsequently lost during Middle English.

Similarly, many of the past participles in Old English eventually lost *-en*. The past participle for *drip*, originally a Class I strong verb in Old English was *dropen*, *wash*, a strong Class VI was *woscon*, and *help*, a strong Class III was *holpen*.

The other suffixes shown in Column A have survived, however, and these are derivative endings.

–ig stanig > *stony* burstig > *thirsty*
–ere bacere > *baker* writere > *writer*

From Column B several derivative suffixes have survived into modern English, (–est 'sweetest', –ness 'goodness', –isc 'childish'). Yet –end, both inflectional for the present participle, and derivative for nouns derived from the present participle, (e.g. *Healand* 'savior' from *healende* 'healing/saving') no longer exist. The suffix –enne of the inflected infinitive (e.g. *to raedenne* 'to read' dative case) was lost during Middle English.

These observations suggest that the derivational endings survived in English more than the inflectional ones. Joynes (1958) interprets these findings as supporting the view that derivational suffixes in general in Old English received greater stress than inflectional ones. Given the generally accepted view that primary stress in Old English fell on the root syllable, (Marckwardt and Rosier 1972), (Moore 1963), (Campbell 1959), any difference

between stress on derivational and inflectional suffixes would be a difference in secondary stress. Campbell alludes to this distinction above with regards to Columns A and B, though he assigns this difference in secondary stress along purely phonological lines, and not grammatical.

It is generally accepted that the vowels in Old English in unaccented syllables were not centralized, but retained the features of height, rounding, frontedness and backness associated with vowels in stressed syllables. (Marckwardt and Rosier 1972), (Campbell 1959), (Brunner 1963). The centralization of unstressed vowels is associated with the loss of final inflections. Given these facts, it is possible that *-ing*, receiving secondary stress (by the observations above), retained a vowel nucleus that was front and high, not centralized schwa.

The occasional spellings of *-ing* as <in> may not represent /In/ as Wyld argues; it has already been shown that <in> does not provide a convincing orthographic link to the modern grammatical effect on (ING), (see Section 3. above) but also it has been shown that, in Irwin's sample <ig> occurred 6 times to the one instance of <in> as a spelling variant of *-ing*. (See Table 6.24 above).

The phoneme /ŋ/ has never been represented by a single grapheme in English, but as it acquired phonemic status in the language, it is possible that writers could have represented it as either <n> or <g>. The Old English spelling <ng> bore a close relation to the phonemic facts of Old English; <n> represented the phoneme /n/ and <g> the following phoneme /g/. The new phonemic facts of late Middle English had to make do with the old spelling system. Assuming that as /ŋ/ became a phoneme there was still variation in pronunciation between [ŋ] and [ng], the former may have been written on occasion with either a plain <n> or <g>. This would be in response to the no longer obligatory conditioning environment for the velar nasal, namely a following velar stop.

The assumption that there was a high front vowel in the nucleus of *-ing* also provides an account of how the present participle acquired this suffix. As discussed in Chapter Two, a number of scholars have argued for the existence of a confusion between

the participle and verbal noun suffixes on the basis of confusion of final nasals, following the loss of final stops /d/ and /g/. Little attention has been paid to the vowel quality. In accounting for the modern variable (ING) it has been shown that vowel quality plays a significant role in the realization of the nasal dependent variable.

The question is, what features of the *-ind* suffix could have led to its replacement with *-ing*? Unlike other inflectional suffixes, e.g., those of the infinitives, the participle retained a suffix, replacing one with another. There is no spelling evidence to support the idea that the participle first lost one ending and later added *-ing*. The fact that there was always some suffix supports the idea that this inflectional ending may have received slightly greater secondary stress than, e.g. inflectional *-en*. This makes it more likely that the vowel, represented in the southern dialects by <i> <ə> and <ie> was not centralized, but retained some frontness and height. The situation is then one where two morphemes are co-existing, one with a high front vowel followed by a velar nasal, the other with a mid to high front vowel followed by an apical nasal.

Dobson (1957) suggests that [ɪŋ] tends towards [ɪn] by assimilation of [ŋ] to a dental, under the influence of a preceding high vowel. This may be true from an articulatory standpoint, but acoustically, a high front vowel would influence the perception of the nasal in the opposite direction. Habick (1980) in measurements for vowels and consonants in American English showed the following loci for F1 and F2 for high front vowel, schwa, and velar and apical stops, respectively.

/iy/	F1 – 350 Hz	/ə/	F1 – 550 Hz
	F2 – 2400 Hz		F2 – 1700 Hz
/g/	F1 – 400 Hz	/d/	F1 – 500 Hz
	F2 – 2000 Hz		F2 – 1600 Hz

These values show that the high front vowel has formants close to those for the velar region, and schwa has formants close to those for the apical region. In modern

English the high vowel present in the variant [ɪn] makes it difficult to perceive the articulated apical, which in fact sounds close or identical to a velar nasal.

This statement receives further confirmation from an experiment I conducted on listeners' ability to perceive nasal stops following a number of preceding vowels.

6.9.2 Experimental Results on the Perception of a Nasal Stop Following High Front and Mid Central Vowels

I designed two experiments which were to test the effect of a preceding vowel on the perception of the following nasals [n] and [ŋ] for both stressed and unstressed syllables.

In an earlier study, Zee (1981) reports that /n/ and /ŋ/ tend to be confused with each other when the preceding vowel is [i], but that [n] and [ŋ] are correctly identified when the preceding vowel is [a]. Zee's results show that the misperception of [ŋ] as [n] is somewhat greater than the misperception of [n] as [ŋ], (Zee 1981, p.38).

The results of my experiments are given below in Table 6.35 and Figure 6.8. For a complete description of the experimental procedures see Appendix C.

Table 6.36

Percentage of Correct Guesses for Unstressed -iNG Syllables for 15 Listeners

	1st Guess	2nd Guess		1st Guess	2nd Guess
be [iŋ]	100%	100%	kiss [iŋ]	100%	100%
be [in]	80.0%	46.7%	kiss [in]	66.7%	60.0%
be [ɪŋ]	93.3%	100%	kiss [ɪŋ]	100%	100%
be [ɪn]	100%	100%	kiss [ɪn]	100%	100%
be [əŋ]	86.7%	40.0%	kiss [əŋ]	33.3%	86.7%
be [ən]	100%	93.3%	kiss [ən]	100%	93.3%
sell [iŋ]	100%	100%	talk [iŋ]	100%	93.3%
sell [in]	46.7%	46.7%	talk [in]	33.3%	20.0%
sell [ɪŋ]	93.3%	100%	talk [ɪŋ]	100%	86.7%
sell [ɪn]	100%	100%	talk [ɪn]	93.3%	100%
sell [əŋ]	80.0%	66.7%	talk [əŋ]	20.0%	40.0%
sell [ən]	100%	100%	talk [ən]	100%	93.3%
stoop [iŋ]	100%	66.7%			
stoop [in]	66.7%	53.3%			
stoop [ɪŋ]	100%	100%			
stoop [ɪn]	93.3%	100%			
stoop [əŋ]	66.7%	66.7%			
stoop [ən]	100%	100%			

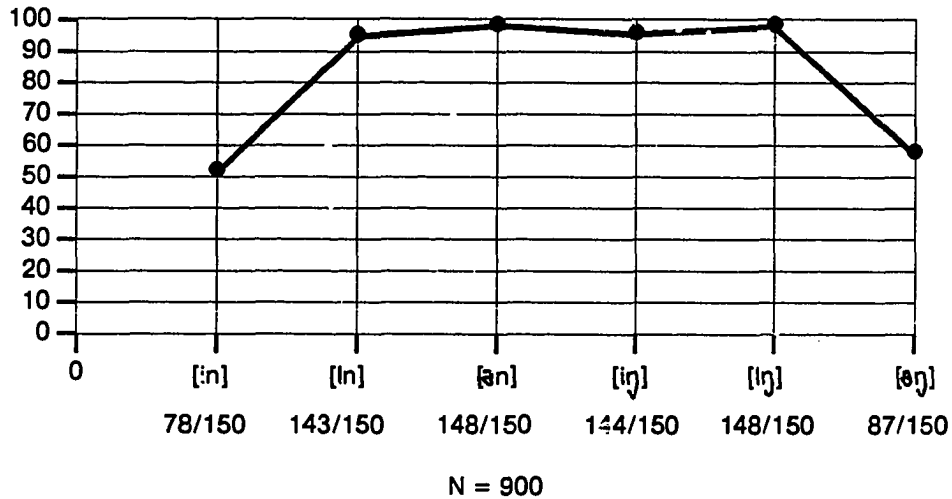
N = 900

Table 6.36 shows that [n] tends to be perceived as [ŋ] in the environment of preceding [i]. These results are for unstressed final *-ing*.

Conversely, in unstressed syllables [ŋ] tends to be perceived as [n] in the environment of preceding [ə]. Figure 6.8 displays the results of Table 6.36 in graphic form,

Figure 6.7

Percentage of Correct Guesses for Six Unstressed Variants of (ING)
for Fifteen Listeners



Applying these acoustic facts to fifteenth century Midlands English, locates a source of potential confusion between the *-ind* and *-ing* morphemes which is based on observable processes at work today. This account assumes that final <d> is silent in Middle English during the replacement of *-ind* with *-ing*, since the presence of /d/ would tend to resolve the perceptual confusion of the nasals. Given the unidirectionality of the change, this assumption is reasonable.

Further support for the argument that the vowel preceding the nasal played an important role in the replacement of *-ind* with *-ing* comes from the fact that in the northern dialects *-and* was not replaced by *-ing* until over a century after its replacement in the Midlands. The vowel represented in <and>, whether centralized or low and back, would have been acoustically more distant from the front vowel represented by <i> in *-ing* in the northern dialects. In turn, greater acoustic distance between the vowels of *-and* and *-ing* in the north would have not led so easily to a confusion between their following nasals.

Given the preceding discussion, what is the role of final <e> in relation to the changes discussed? Its significance as the surviving relic of the Old English case marking system has already been discussed, (Section 6.5 above). The question remains as to how long it was actually pronounced in the language. Northern <and> shows almost no final <e>. In the southern data from Irwin we have seen that both the participle and the verbal noun retain final <e> prior to the replacement of *-ind* with *-ing*. Assuming that <d> became silent, there are two possibilities for *-inde*. Either final <e> was silent or it was a syllable consisting of an unstressed centralized vowel. The two possibilities are as given below. The orthographic representation is given under each postulated phonemic representation, and the point of replacement with *-ing* indicated..

/Ində/ → /ind/ → /In/	or	/Ində/ → /Innə/ → /In/
<inde>	<inde>	<inde>
	<inde>	<inde> ? <indɛ>
	<i>ing</i>	<i>ing</i>

In the second case, it is conceivable that if both *-Ində* and *-Inge* were pronounced with final unstressed schwa, that there could still be perceptual ambiguity between the nasals in the preceding syllable, assuming the vowels preceding the nasals of *-ind* and *-ing* were front and high.

I think it is more reasonable to assume that final <e> was silent on the present participle at the time of its replacement with *-ing*. During the thirteenth century, the time during which Irwin's data show no case function for final <e> with respect to the verbal nouns, final <e> is still occurring 100% of the time on the present participle in the southern and Midland dialects. In the fourteenth century it is still retained 89% of the time in these dialects. In the fifteenth century, however, when the participle now occurs as *-ing* (except for 1 token of *-ind*) final <e> occurs only 44% of the time. It is during this century when the grammatical function of final <e> shows up along the nominal-verbal dimension.

It seems highly improbable that final <e>, which by the thirteenth century no longer differentiates masculine, feminine, neuter nouns, nor their syntactic position, but also does not differentiate adjectival participles from phrasal ones earlier formed with the suffix *-nd* should suddenly become re-analyzed as a nominal-verbal derivational ending two centuries later.

Rather than interpreting final <e> as a syllable, its presence, (subsequent to its loss of significance as a case marker) could simply indicate that final /g/ was still being pronounced. Irwin's data show occasional spellings with final <c>, suggesting that the final stop could be devoiced, (*waeterhaigunc*, 'water hallowing', p. 70, Irwin 1967). This process can be seen today as well in British working class speech, especially the nominal compounds, e.g., *nothing*, *anything*.

This assumption would be consistent with the grammatical effect observed with final <e>. The fact that the participle does not adopt the *-ing* suffix until well after the thirteenth century suggests that during the thirteenth century the final conditioning environment for /ŋ/ in *-ing*, namely [g], was still widespread. Its presence may have served to distinguish the verbal nouns and participles, despite any similarities between the vowels preceding *-nd* and *-ng*. As [g] became less frequent as a conditioning environment for /ŋ/, i.e. as /ŋ/ became a separate phoneme, the difference between the two suffixes would be further diminished, and finally lost altogether. Thus the written language by the fifteenth century reflects this essentially completed change in the southern dialects of England.

I will briefly re-state the most important points of the preceding discussion.

(1) *-ing* and *-nd* were, respectively, derivational and inflectional suffixes which survived into Middle and modern English, and were not lost as many other inflectional and derivational endings of Old English were which had consisted of a vowel followed by nasal.

(2) The retention of these endings (plus the appearance of *-ing* on occasional infinitives, etc.) leads to the idea that these suffixes received greater stress than other derivational and inflectional endings which were lost.

(3) The possibility of greater stress on the suffix would allow as well for the likelihood that the vowel was not centralized, but was possibly a high front vowel, in the southern dialects. The orthographic evidence does not contradict this notion, except in the northern dialects where the spelling merger to *-ing* did not take place until much later.

(4) The occurrence of a high front vowel would in turn cause the following nasal to be perceived as a velar, rather than an apical.

(5) This (the point in 4) would be consistent with the fact that *-ind* changed to *-ing* and not the other way around, assuming that final <d> on the participle was no longer pronounced. (In fact Irwin's data show no variant spellings of the verbal nouns in *-ind*). Such a situation does not preclude, however the possibility that the participles were also pronounced with an apical nasal.

(6) The presence of a high front vowel preceding the nasal of these two suffixes would also account for why the present participle in the northern dialects did not appear as <ing> until over a hundred years later. From the spelling evidence of the north, <and> on the participle, it seems unlikely that the vowel in this nucleus would have been close to that of the verbal noun ending which in the northern dialects is also spelled <ing>. Eventually through the rise of standard English, the spelling in the north would also change, but this is a different cause. This could also account for why the northern dialects show greater occurrences of schwa in modern English on the participles than do the southern dialects.

(7) The presence of final <e> as a nominal marker may indicate a difference in pronunciation; this possibility represents an historical link to the grammatical effect discussed in Chapter Four. Its shift in Irwin's data from the marker of case on object/oblique verbal nouns to its association with the subject ones, and its association with gerunds in subject position, (as well as the subject gerunds in the data for this study), support the idea that it became associated with nominals, against the increasing verbalization of *-ing*. (The increased verbalization of *-ing* will be discussed further in

Chapter Seven). In other words when final case marking no longer played the role in English which it once had, the remnants of it represented by <e> adhered to the more nominal origins of the verbal nouns. Rather than assuming <e> represented a separate syllable, after its loss of case significance, it could have indicated the presence of final conditioning [g], which retained a stronger association with the nominals categories than with the verbal ones.

The point here is that, even though the present participle assimilated the ending of the verbal nouns on the basis of some perceived traits of similarity (the vowel nucleus) the differences between them at the grammatical level were still great enough to maintain distinction. There is no need to suppose that the spelling merger implied the lack of any remaining systematic variation between the verbal nouns and the participles. Chapter Four has already demonstrated that non-random variation plays a role with respect to the modern suffix and its grammatical functions.

6.10 The Relationship between the Gerund, the Inflected Infinitive and the Present Participle

Because it has been argued (Langenhove 1925) that the grammatical change involving the *-ing* suffix had more to do with a confusion between the gerunds and the infinitive than between the gerunds and the present participle, it is worth taking a brief look at the motivation behind this point of view.

What some scholars have argued is that the modern verbal gerund is descended from the inflected infinitive, whereas the modern nominal gerund is descended from the original verbal nouns (abstract feminine). (see South Caroline REF) We find the following type of statement from Langenhove:

"Already in early Middle English most southern and certainly nearly all Midland and Northern dialects had reduced the original ending in <enne> either to <in> or <en>. This stage once having been reached, the substitution of [ng] for [n] in a final syllable with reduced secondary stress or weak stress was an easy process, which is still daily illustrated in modern English and other germanic languages." (Langenhove 1925 p. 126.)

Langenhove refers here to the inflected infinitive in English, which he claims became functionally confounded with the gerund. He gives no examples of this process in modern English, nor in other Germanic languages. From Chapter Four just the opposite process was shown; final syllables with reduced stress which end in *-ing* become realized as /n/.

There is some evidence, though scarce, that spelling variants of the infinitive developed from <enne> to <en> to <ing>, but the actual number of examples of the infinitive with the <ing> spelling variant is not large. (Irwin (1967) lists only 1 example in her 800 page, 800 year sample; Visser (1973) lists several such examples.) It is interesting therefore that Langenhove states that the inflected infinitive *to + infinitive + ing* predominated during the fourteenth century.

Langenhove states further that verbal nouns throughout Middle English ended in <n>. Again Irwin's data show only 2 examples of this. Langenhove infers from these facts that in the spoken language, verbal nouns (gerunds) and prepositional infinitives were not distinguished. He is implying that they were not distinguished in terms of function as well as in pronunciation. Yet at most what has been shown is that evidence for spelling confusion may indicate similarity in pronunciation it does not by itself provide evidence for formal or functional confounding. There is some evidence that, at least temporarily, the inflected infinitive took on the *-ing* suffix in the southern dialects. The following examples cited by Einkenkel (1914) support this.

(6.10) that he will put his own child *to nourishing* to another woman

(Morte D'artur.) late Middle English

(6.11) Guy, hir loue and *to coming* husband

(Caxton, Ch the Gr) Middle English

(6.12) he was *to deyinge*

(Lucas 7,2 erat moriturus) Middle English

(6.13) and that he thouzt nouzt on nothing *to comyng*

(Berl +Jos F94.) Middle English

(6.14) and if you was to make an honest woman, I should not be angry; but
you must have *to doing* with an gentleman, you nasty slut!

Sommerset dialect) Modern English

The following is a brief synopsis of historical facts regarding the infinitives.

(1) The Old English infinitives were verbs of action. The inflected infinitive was in the dative case and preceded by *to*. (in poetry sometimes, but never in prose, the uninflected infinitive is occasionally preceded by *to*) (4)

(2) In late Old English and early Middle English *to + Inf* increases in frequency over the plain infinitive. This is the situation today. (5)

(3) In early Middle English in the south and southwestern dialects, the <ende> replaces the <enne> of the inflected infinitive, (Brunner 1963).

(4) In the thirteenth century the *to* of *to + Infinitive* loses its prepositional force, it becomes a mere grammatical form devoid of meaning, (Mustanoja 1960).

(5) Then in the southern dialects, from the thirteenth to the fifteenth century, <inge> comes to be used for <enne> as shown above in the data cited from Einkenel (1914). (Irwin's data show no evidence of this, however, contrary to the statements of Visser and Mustanoja) (6)

(6) Long (1944) states that in the fifteenth century the southern dialects had retained the inflectional endings more than in the north, where they were largely lost at this time.

(7) The inflectional endings persist as a dialect feature. The infinitive <n> survives in works such as the Book of Margery Kemp (c.1400) and the works of Lovelich (c.1450).

(3) and (5) above suggest the possibility that the present participle and later the verbal noun could have been confounded with the inflected infinitive. In modern English there is one environment shared by the infinitive, the participle and verbal noun.

it began to rain
it began raining

he continued to sing
he continued singing

It was shown in Chapter Five, (Figure 5.1) that the complements of quasi-progressives could be either verbal nouns or participles, and it's not easy to trace uniquely the origin of modern constructions to one or the other of these.

But even today there are some aspectual differences between the acceptability of an infinitive and the other forms.

it kept *to rain
it kept raining

it stopped *to rain
it stopped raining

she finished *to eat
she finished eating

she liked going to the film last night
she liked *to go to the film last night
she liked to go to films

he would like to fly tomorrow morning
he would like *flying tomorrow morning
he would like flying if he tried it

he would have preferred to fly yesterday
he would have preferred flying yesterday
he would have preferred ?flying if he tried it

With these forms occurring as the complements to main clauses without Equi NP Deletion, the differences are even more noticeable.

she had them clapping their hands
she had them *to clap their hands

he wants her to make him dinner
he wants her *making him dinner

she saw him walking across the bridge
she saw him *to walk across the bridge

From these observations and from the limited nature of the data showing the inflected infinitive with a final <ing>, it seems likely that any confounding which may have occurred between the infinitive and the participle or verbal noun was constrained. More likely it seems that, for a time, the suffix <ing> was surviving as the main nasal-final suffix, and that eventually the grammatical differences among the infinitives and the participle and verbal noun sorted themselves out phonologically.

6.11 Concluding Remarks

In this chapter I have argued that, overall, the spelling evidence does not support the notion that the verbal noun and the present participle became confounded due to having similarly unstressed suffixes consisting in a centralized vowel and apical nasal. The spelling evidence is more consistent with the idea that there was some stress on the *-ing* syllable and that the vowel quality preceding the nasal in the suffixes of the participle and the verbal noun in the southern dialects shared phonetic qualities which contributed to the following nasal being perceived as a velar. This would explain both why the spelling moves clearly from <nd> to <ng> and not the other way, and why the northern dialects did not make this merger at the same time, the vowel preceding the nasals of the suffixes here being more dissimilar.

Amid the changes taking place, the distinction between nominal and verbal occurrences of forms in *-ing* appears to have survived at least for a while in the use (nominal) or non-use (verbal) of final <e>. Such a differentiation in early modern English would give one account for how the original grammatical delineation survived across time,

even after the more salient differences in spelling and pronunciation had disappeared. The fact that this is not a categorical statement about either the spelling or the pronunciation of the verbal nouns and the participles is not paradoxical if one assumes that variation is inherent in the structures of language. Some account of the directedness of this variation has been presented in the preceding section.

In the next chapter I will discuss the evidence for the increasing verbalization of *-ing* and the syntactic environments which could have led to a syntactic syncretism between *-ind* and *-ing*.

Footnotes

1. They are taken from the nineteenth century novel *The Clockmaker The Sayings and Doings of Sam Slick of Slickville*, (Haliburton 1836).
2. For example in the 8th century corpus the variations in the vowel were all found among Mercian materials (Irwin, 1967, p. 52). Although the *-and* suffix on the present participle is a spelling characteristic of the northern dialects, other variation in the participle's suffix, especially in the south is not equally dialectal in nature, (Sweet 1885).
3. The other ending is *<es>* for occasional plurals.
4. The earliest documentation of *for-to* is 1066 (Visser, 1973). In the Book of London English (1384–1425) the ratio between *to* and *for to* is 5–1. The origins of *for to* are unclear.
5. One possible reason for the rise of the inflected infinitive may have been its use in expressing the passive. For the passive Old English had three possibilities: (1) *wesan/beon + past participle*, (2) *weorthan + past participle*, (3) *to + Inflected Infinitive*. The infinitive may have gained ground at the expense of *weorthan + past participle* which was eventually lost altogether. Yet the passive in Middle English could still be expressed by either an active or a passive infinitive, *he is not to blame = he is not to be blamed*. Chaucer frequently used the active infinitive form for a passive sense, (Visser 1973).
6. Occasionally the construction *to + Ing* is used to translate a Latin future participle, especially in Wycliff and Trevisa.

7.0 The Expanding Verbal Function of –ING

7.1 Introduction

In Chapters Four and Six a continuity between the present and the past was established on the basis of an observed correlation between the grammatical conditioning of (ING) and geographical dialect, as well as an observed correlation between historical orthography and the grammatical conditioning.

These correlations have demonstrated a continuity in terms of categorical differences in the past being preserved in noncategorical variation in the present. In addition to this process, a trend towards increasing verbalization of (ING) is observed. In this chapter the increased verbal function of (ING) will be addressed.

This has relevance to the phonological variation because the increasing verbal function may serve to explain in part why the apical variant has continued to survive so robustly, despite the fact that the original form of the participle was replaced by the nominal form, and not the other way around.

I will argue that the synchronic continuum should not be viewed as the structural endpoint of a categorically discrete change, but provides a snapshot of a continuum which is probably still in the process of change.

7.2 The Morphological Status of Synchronic (ING)

The task of representing the morphology of (ING) adequately within a formal grammar with respect to its inflectional and derivational status is complex. From an historical perspective, there is some motivation for assuming the existence of separate suffixes, inflectional and derivational, respectively. The issue of how to represent these within a synchronic description of the grammar entails deciding, among other things, whether these are discretely separate morphemes, or whether there is evidence of a continuum.

It has already been shown in Chapter Four that the grammatical categories occurring with (ING) exhibit a continuum with respect to applications of G, and that this effect is not the result of external conditioning factors.

7.2.1 Generative Models

In Chomsky (1970) it is implicit that inflectional *-ing* is derived at the transformational level, presumably by a rule of affix-hopping which attaches this suffix to the verb form, producing, for example, the surface structure progressives of English. Based on a number of observations (1) Chomsky concludes that verbal gerunds, *John's refusing the offer*, are also transformationally derived, in contrast to derived nominals, *John's refusal of the offer*, which are derived in the lexicon, i.e. at the morphological level.

An intermediate case, which Chomsky calls a *mixed form* (nominal gerunds), are assumed to be derived at the lexical or morphological level. Given the greater verbal properties associated with verbal gerunds than with either derived nominals or nominal gerunds, is it the case that verbal gerunds are assigned an inflectional ending? They do occur with auxiliaries as sentences do. Yet, they still occur in the position of noun phrases, and in this respect are different from progressive and appositive verb forms in *-ing*. Chomsky (1970) postulates the following base form for verbal gerunds upon which regular transformations are expected to apply, and whose semantic interpretation is regularly paralleled by that of the corresponding sentence.

[NP	nom	(aspect)	VP]
S			S

The element *nom* which occurs in other analyses as well, avoids addressing the issue of the status of *-ing* directly, whether it is the same {ING} as the one which occurs with affix-hopping, (inflectional) or a different one (derivational).

Schachter (1976) and Horn (1975) both argue for non-transformational analyses of verbal gerunds. (Everyone seems to agree that nominal gerunds are not transformationally derived). Schachter assigns verbal gerunds the underlying structure of nominalized verb phrases, rather than nominalized sentences. His base rules for this are

NP → (DET) NOM

NOM → VP

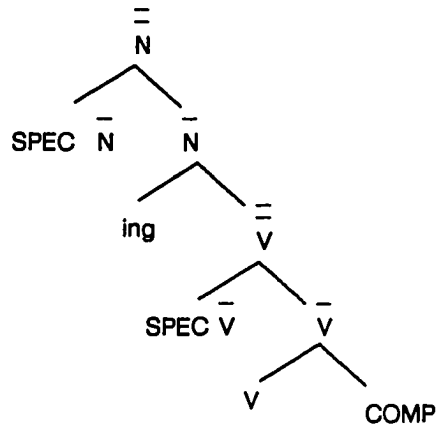
His rejection of the sentential analysis of verbal gerunds is largely based on the observed differences of the NP heads of sentences and verbal gerunds, the former he argues are obligatory, the latter optional. But it is never made clear in his analysis whether one or two {ING} morphemes are postulated. In other words, the issue of whether there is both an inflectional and a derivational affix is not resolved, nor the issue of where each of these would be represented within the grammar.

Horn regards a subset of verbal gerunds, the Poss-Ing constructions, as essentially nominal with the following base rule, first shown in Chapter Two.

$$N \rightarrow \text{Spec } N \begin{matrix} [\text{ing } V] \\ N \quad N \end{matrix}$$

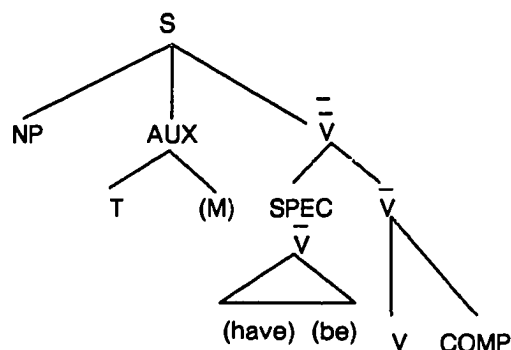
The *-ing* specified above must be attached at some point with a rule of affix hopping, since the affix occurs as a formative at the syntactic level. This point is made clearer in the case of Poss-Ing constructions with auxiliaries. Horn's analysis allows the following expansion

Figure 7.1
Expansion of Horn's Poss-Ing Analysis



This configuration would generate sentences such as *John's having beaten Mary surprised me*. In contrast, the structure for a sentence with auxiliaries is expanded as the following:

Figure 7.2
Auxiliary Expansion within Horn's Analysis



Note that the affixes *-en* and *-ing* are not explicitly assigned a position here. Under Spec V' in the expansion for verbal gerunds Horn does not show whether he intends *ing* to occur there. It would seem quite possible, since Spec V' expands to (have) (be) by this

analysis, and presumably the affixes occur there as well, i.e. the expansion is really (have en) (be ing). If so, then that structure would contain two *ings*. There is nothing in his analysis to restrict that. Again, the issue of whether the analysis is assuming two {ING} morphemes, or one, is never made clear.

Jackendoff (1977) appears to treat *-ing* as an unanalyzed formative, e.g. his rule for generating verbal gerunds is $N'' \rightarrow \text{ing } V''$. On what basis this *-ing* is distinguished from the one that occurs in his rule for verb phrase expansion,

$$V'' \rightarrow (\text{have en}) (\text{be ing}) V',$$

a rule required for sentences, is never explicitly discussed. This is surprising given that Jackendoff spends a good deal of time in this work attempting to account for word structure in English, including differences among types of nominalization in English. Again, the issue of inflectional and derivational {ING} is not directly addressed, except that both instances here are assigned to syntactic structure, not to the lexicon. Whether there is a further morpheme {ING} at the lexical level to derive, e.g. *roofing* and *ralling*, is not discussed.

Selkirk (1982) argues that

"...it is not clear that a principled line can be drawn between inflection and derivation. For example, it may not be possible to ascribe an inflectional rather than a derivational status to a given affix on the basis of its semantic function." (p.69)

Her solution is to relegate traditionally defined inflectional processes in English (those which don't change the basic category or meaning of the word) within the morphological component of the grammar. This component enjoys autonomy from the syntactic component by her stipulated condition that *no deletion or movement transformation may involve categories of both W-structure (word structure) and S-structure (syntactic structure)* (p.70)

Selkirk's analysis might distinguish inflectional {ING} and derivational {ING} by the *diacritics* associated with each, i.e. their morphological features. Yet her views on this specific affix (or affixes) remain unclear as evidenced by her equivocal reference to

nominalizing -ing as in *pasta eating* (p.45) and *adjective-creating -ing* as in *nice-seeming* (p.14) where both are defined as *verbal compound affixes*.

The difference between adjectival and nominal verbal compounds is said to reside in their argument structure, i.e. the relation of the morphologically complex head (*eating, seeming*) to its complement (*pasta, nice*). This does not resolve the status of the *-ing* suffix itself. It is not clear from her discussion how adjuncts, which she calls *compounds* such as *living room* and *swimming team* are differentiated according to *-ing*. The differences between these forms in *-ing*, with respect to their paraphrases, has been discussed in Chapter Five, (Section 5.5.4). Selkirk treats *living room* as a compound type N N; would she also treat *swimming team* as N N, and if so, how is the (ultimately) syntactic behavior of this expression distinguished from that of *swimming pool*?

The preceding discussion reveals an inherent tension in generative efforts to characterize the morphology of present day *-ing* in terms of discrete elements within the grammar. In none of the analyses mentioned would we be led to expect a grammatical conditioning of the phonologically defined variable (ING).

Before returning to the theoretical question of how to describe the morphology of (ING) synchronically, I would like to consider the evidence which supports the view that (ING) has developed an increasingly verbal function from at least the time of late Middle and early modern English.

7.3 Syntactic Syncretism and Verbalization of (ING)

In Chapter Five it was shown that modern (ING) can trace its origins back to a number of morphological forms, (Section 5.2). It was shown that one contrast, between the original masculine *-ing* and feminine *-ung*, was lost as a consequence of both an apparent fronting of the vowel in the feminine suffix (to *i*), as well as the loss of grammatical gender which resulted from a levelling of Old English inflections to *e*.

This process resulted in formal identity. Both forms had always functioned as nominals, syntactically and inflectionally, the main difference being that masculine nouns denoted concrete objects, whereas feminine nouns denoted abstract actions, (Visser 1973), (Irwin 1967).

The replacement of verbal *-ind* with *-ing* would not, by itself, have diminished the contrast between participles and verbal nouns to the same extent as the loss of gender did in the instance above. Although a formal identity apparently existed between participles and verbal nouns by the fifteenth century in southern England, the two categories did not share all syntactic environments. Nor did the categories exhibit similar functions in all instances.

Verbal nouns, as with modern gerunds, occur in subject, predicate, object or oblique position. (2) Present participles in the fifteenth century occurred as pre-nominal and post-nominal modifiers, as well as predicate adjectives. More frequently, they occurred in non-finite clauses.

Given these considerations, there were four syntactic environments in which a formal identity between the participle and the verbal noun could potentially have led to a syncretism between them.

- (a) Subject + Be + Present Participle // On + Verbal Noun
- (b) Subject + Aspectual Verb + Present Participle // On + Verbal Noun
- (c) Subject + Verb + Present Participle // Verbal Noun
- (d) Subject + Verb + Object + Present Participle // Verbal Noun

The construction shown in (a) represents the environment of a participle following a (finite) form of *Be*, and the presence of the verbal noun in this same position. The construction shown in (b) represents participles and verbal nouns following verbs of inception and completion, such as *begin*, *stop* and motion verbs such as *come* and *go*. Constructions shown in (c) and (d) represent participles and verbal nouns as the complements to verbs, both in constructions with and without Equi NP deletion. The four shared environments are illustrated in examples (7.1) – (7.4), taking examples prior to the spelling replacement in order to establish the existence of both categories in these configurations.

- (7.1) a. hwanne ic iseo þar sum wreccede *Is cumynde* negh,
when I see there some wretch is coming' nigh,

c.1200, Owl & N., MSS Jesus Coll. Oxf. 29, 1220. (Visser, vol.3,
pt.2, p. 1993,)
- b. ic wæs on *huntunge*
I was on hunting

Aelfric's Colloq.,68. (Visser,vol.3, pt.2, p.1993)
- (7.2) a. [he] be swa *wepende eode*
he who so weeping went

Waerferth, Dial. Greg. (Hecht) 89,6. (Visser,vol.3, pt.2, p. 1908)
- b. Gif he on *gepafunge gaeth*
if he on permitting goes

O.E. Ben. Rule (Logeman) 103, 3. (Visser, vol.3, pt.2, p. 1909)
- (7.3) a. hi *adredon hine ahsiende*
they dreaded her-acc asking

O.E. Gosp. Mk. 9, 32. (Visser, vol.3, pt.2, p. 1906)
- b. þe desire of thi herte for to seke *knawinge or feling mare gastely of
þe Godhede*

the desire of thy heart to seek more spiritual knowledge and feeling
of the Godhead.

Rich. Foile, Prose Treat. (EETS), IX,41, 21, c1340. (Visser, vol.2,
p. 2342)
- (7.4) a. he *geseah þone haeland gangende*
he saw the savior going

O.E. Gosp. John, I, 36. (Visser, vol.3, pt.2, p. 2342)
- b. se sceal *aes pundes spendunge* Gode agifan.
he must this pound's spending (to) God give

O.E. Gosp. Mt, 556, 29. (Visser vol.2, p.1186)

These examples represent the contact points at the level of surface structure between the original participle and verbal noun. A closer analysis of these *sites* will show that only (7.1) and (7.2) give evidence of a syntactic syncretism. The examples in (7.3) and (7.4) have maintained a distinction between the participle and gerund today by differences in subcategorization of matrix verbs, and, to some extent, by case. In the following sections (7.3.1 – 7.3.3), each of the four syncretisms being considered will be discussed in detail.

7.3.1 Syncretism Following Main Verb BE

Scholars (Jespersen 1956), (Visser 1973) hold that (7.1b), i.e. *Be + on + V-ing*, is the source of the modern progressive. As Visser points out, a direct relation between the modern progressive and the Old English participle as exemplified in (7.1a) is difficult to establish, since there are only five instances of the construction type BE + V-ING in Old English. In each of these instances, there is some reason for believing there to be textual corruption. (3)

Instead, the development from the gerund to the progressive is assumed to have occurred as a result of the reduction of the preposition *on* to *a*, and its subsequent loss.

Be + on + huntinge → Be + a-huntinge → Be + huntinge

Besides the resulting formal identity of *-ind* with *-ing* subsequent to the reduction and loss of *on*, the syntactic complements to both participle and verbal noun share similarities.

In Old and Middle English, the complements to both participles and verbal nouns following *Be* are oblique objects. This suggests that both constructions were primarily intransitive. Although Visser states that *-ind* participles were frequently found with a following direct object throughout Old English, (Visser 1973), an examination of the data he cites shows that the majority of these participles are intransitive in both Old and Middle English. Among the examples Visser cites connoting *habitual* aspect from Old to Modern English (Visser, vol. 3, pt. 2, pp.1940–1941), nearly all exhibit an oblique object, or

involve verbs of motion. The few examples occurring with a direct object are attested after the beginning of the seventeenth century.

	%	N
direct object	16.3	8
oblique/no object	83.7	41
	100	49

- (7.5) On þæm dagum after þære giswencednysse heofones steorran *beo faellende*
On the day after their affliction heaven's stars be falling

O.E. Gospels, Mk., 13, 24. (Visser vol. 3, pt. 2, p. 1941)

- (7.6) þe bees *are fehtande* agaynes hym þat þære hony fra thaim will draw
the bees are fighting against him that will draw their honey from them

Rich. Rolle, Bee and Stork, 55,20. (Visser vol. 3, pt. 2, p. 1941)

- (7.7) ac on middan urum wintra *beo* heora feldas mid wyrtum *blowende*
moreover, in (the) middle of our winter be their fields with crops
blowing

Aelfric, De Temporibus Annis, EETS,IV,53,40. (Visser vol. 3, pt. 2, p. 1941)

(Direct objects are frequently found following *non-finite* participles, see Table 7.2, but this is a different construction)

Many of the examples of *Be + V-ing* in Old and Middle English can be classified equally well as progressives or as adjuncts, because of the lack of suprasegmental information available for English at these times, (Visser 1973). In an example such as *he was in the temple teaching*, a frequent word order in Old and early Middle English, the

participle *teaching* may be either a non-finite adjunct with *Be* the main verb of predication, or it may form a progressive, with *Be* as the auxiliary verb.

The majority of verbs cited from Old English in the construction *Be + V-ing* appear with intransitive verbs of motion and mental perception. Verbs such as *standing*, *lying*, *sitting*, and *hanging* are all attested in Old English, (Visser, pp. 1984–86). In contrast, many transitive verbs are not attested until much later. The verbs *remembering*, *enjoying* and *forgetting*, for example, are not cited until the nineteenth and twentieth centuries, (Visser, vol.2, pp.1975–79). This supports the view of expanding verbalization of (ING) through analogic extension. A few verbs in Old English appear with following direct objects in the *Be + V-ing* construction, in particular *do* and *have*.

- (7.8) *næs he haebbende wif ne bearn.*
not-was he having wife nor child.

Martyrology, EETS, 88,2. (Visser, vol.3, pt.2, p. 1966)

Yet even with a verb such as *have*, early instances convey an intransitive use.

- (7.9) *Til him þat has bene hauand and falles in-to state o nede.*
til him that has been having and falls into a state of need.

Curs. Mundi, 28943. (Visser, vol.3, pt.2, p. 1967)

The earliest instances in my data of a participle or a verbal noun occurring with a direct object are found in the fifteenth century.

- (7.10) *As I was wryghtyng thys lertyr on told me that...*

(Paston Letters, vol. 2, p. 595, c.1450) Participle

- (7.11) *þis demeny[n]g off yow in brekyng zor promyss me thynk ys not comendabyll*

(Paston Letters, vol. 1, p. 188, c.1450) Verbal Noun

The relative frequency of progressives at this time is notably lower than the relative frequency of verbal nouns. The following examples represent all occurrences of the progressive participle found in my data between the fifteenth and seventeenth centuries. (Examples 7.10 and 7.11) should also be included here).

- (7.12) *whell ze ar goyng to a marte*
well you are going to a market
 (Cely Papers, p. 50) 15th century
- (7.13) *And as I was wryghtyng thys byll on of the gromys...cam to me*
and as I was writing this bill one of the grooms came to me
 (Paston Letters, vol. 2, p. 593) 15th century
- (7.14) *and tys same day have I ben passyng seek.*
and this same day I have been passing sick'
 (Paston Letters, vol. 2, p. 596) 15th century
- (7.15) *only Sir Arthur Savage is going thether with a thowsend men,*
 (John Chamberlain, p. 31) 17th century
- (7.16) *The King of Spaire is said to be going into Portingale (Portugal)*
 (John Chamberlain, p. 40) 17th century

Figure 7.3 shows the percentages of progressives, verbal nouns in oblique position, and non-finite (appositive) participles with following direct objects, for each century.

Figure 7.3

Percentage of Appositive Participles, Progressives and Oblique Gerunds with Following Direct Object

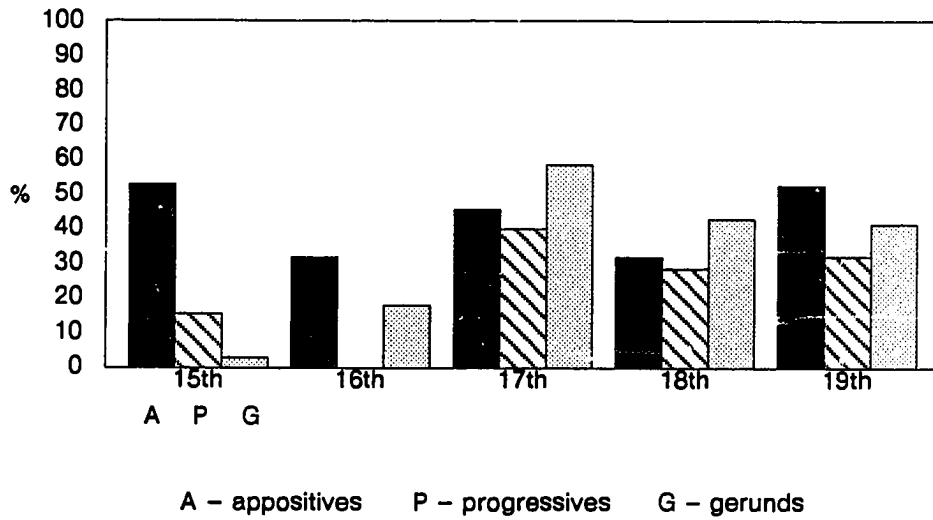


Table 7.3

Data Shown in Figure 7.2

	15th	16th	17th	18th	19th
appositives	% 53.0	31.9	45.6	31.9	52.6
	N 62/117	15/47	31/68	15/47	40/76
participles	% 15.4	0.0	40.0	28.6	32.1
	N 2/13	0/10	4/10	2/7	25/78
gerunds	% 2.3	17.9	58.5	42.9	41.5
	N 9/399	19/106	100/171	24/56	49/118

Figure 7.2 and Table 7.2 show a trend of increasing verbalization which is paralleled for both progressives and the gerunds, on the basis of presence of direct objects. This is in sharp contrast to the constant presence of such a verbal trait for the non-finite appositive participles across time.

The rarity of the progressive participle in early modern English, as compared to the non-finite participle and the verbal noun, is consistent with the idea that it evolved from already existing categories. The apparent parallelism between the progressive and the verbal noun in the acquisition of direct objects gives further evidence of a relation between these two constructions. The early correlation of *a + V-ing* to these facts would provide a further important clue.

Most of the examples of this construction cited by Visser, are intransitive or passive in meaning. (4) Examples (7.17–22) are taken from Visser (1973, vol.3, pt.2, pp. 2020–21).

(7.17) as for youre chamberynge that was *at making* at Bregys when
Andryan...was at Calles

Cely Papers (Visser, vol. 3, pt.2, p. 2020) 1475–88

(7.18) Whiest the treasure is *a digging*, there must be read the psalmes.

1584 (Visser, vol. 3, pt.2, p. 2020)

(7.19) At his arrival, the last stake of the Christians was *on losing*.

Thomas Fuller (Visser vol. 3, pt.2, p. 2020) 1639

(7.20) Never was a shovel so long *a-making*.

(Visser vol. 3, pt.2, p. 2021) Defoe *Robinson Crusoe* 1719

(7.21) This carriage...had been three years *in building*.

William Hone (Visser vol. 3, pt.2, p. 2021) 1825–7

- (7.22) Britain was still little more than a promontory of Europe, when the Pyramids were *a-building*.

Winston Churchill *A History of English Speaking Peoples* (Visser vol. 3, pt.2, p. 2021) 1956

During the sixteenth and seventeenth centuries the reduced form *a + gerund* becomes increasingly common, finally becoming stigmatized during the nineteenth century, (Visser 1973). (5) The earliest examples of *a + V-ing* with direct object in my data are not found before the eighteenth century. These examples illustrate passive as well as intransitive functions.

- (7.23) Drums *a beating*, fifes *a playing*

(Diary of Jeremiah Greenman, p. 13) 1775

- (7.24) [they had] everything that could be eat on ye fires *a boyling*.

(Diary of Jeremiah Greenman, p. 19) 1775

- (7.25) I'll set it *a going* and put it to the right time.

(Haliburton. *The Clockmaker*, p. 22) 1836

- (7.26) for you might see him sometimes of an arternoon *a swimmin* along with the boys on the Potomac

(Hailburton, *The Clockmaker*, p. 84) 1836

(7.29) illustrates the presence of an oblique object, (7.28) illustrates an early instance of the periphrastic future tense.

- (7.27) [the officer] asked what we was *a cuting* the ice from that door for.

(Diary of Jeremiah Greenman, p. 26) 1776 Direct Object

- (7.28) ...but they mistrusted that we was *agoing* to try to git out...

(Diary of Jeremiah Greenman, p. 26) 1776 Periphrastic Future

- (7.29) When I've been along-shore after now, *a vendin of my clocks*, and they begin to raise my dander, by belittling the Yankees, I...

(Haliburton, *The Clockmaker*, p. 139) 1836 Oblique Object

- (7.30) So next day to it I went with a party of men *a-digging a piece of canal*.

(Haliburton, *The Clockmaker*, p. 30) 1836 Direct Object

- (7.31) Many the poor feller's crupper bone he's smashed with his great thick boots, *a throwin out his feet afore him*.

(Haliburton, *The Clockmaker*, p. 141) 1836 Direct Object

A + V-ing occurs as an appositive participle in (7.30) and (7.31). These examples, (7.27–7.31), represent the earliest instances in my data of *a + V-ing* occurring in non-finite clauses. This suggests that the reduced gerundive form *a + V-ing* has been extended beyond the original site of syncretism following *Be*. Its appearance in sites which, historically, were non-finite participial sites, supports the view that it has become a verbal form itself.

Wolfram and Christian (1980) provide synchronic evidence of *a + V-ing* in Appalachian English. In their data they found no instances of *a + V-ing* which occur as nominals, e.g. gerunds in subject position, derivational concrete nouns, nominal compounds, adjectives. Yet they cite instances of this construction for all of the verbal (ING) categories, e.g. progressives, quasi-progressives, appositives, verb phrase complements, reduced relative clauses, and *Acc-ing*.

Such findings are consistent with the historical data cited in (7.27–7.31). That is, the Appalachian data show evidence of the verbal categories to which *a + V-ing* was extended from its original syntactic site. From these data, both historical and synchronic, it would seem that the inherent verbal meaning of the Old English feminine *-ung* nouns, especially those in oblique position, moved steadily towards a structural manifestation of this verbal meaning. This is shown by the appearance of *a + V-ing* in syntactic structures which historically would not have shown a preposition, e.g. Old English appositive participles.

From the preceding set of observations two types of evidence supporting a syncretism between participle and oblique verbal noun in the environment following *Be* appear. The relative frequency of progressives with *-ing* is low throughout the early Modern English period. If the modern progressive were a direct reflex of the Old English participle with *-ind*, there would be an expected continuity in the relative frequency of such occurrences in the environment following *Be*. Such a regularity was observed for other participial categories in regard to their *pre-ind* and *post-ind* distributions, which apparently is not the case for the environment following *Be*, as seen from Table 7.2.

The eventual extension of *a + V-ing* beyond the original syntactic site following *Be*, supports the idea of a syncretism between the verbal noun *a + V-ing* and the participle. The assumption that the modern progressive evolved from the early verbal nouns would predict that the intermediate stage, i.e. *a + V-ing* should exhibit similar grammatical traits to the verbal noun. This, in fact, has been shown to be the case.

The data reported for the existing use of *a + V-ing* in Appalachian English (Wolfram and Christian 1980) show that the distribution of *a + V-ing* is restricted to verbal contexts today, and it is not found in either *pre-nominal* attributive sites, nor occurring as nominal or verbal gerunds, (Wolfram and Christian 1980).

This set of observations support the view that the origin of the progressive was nominal in structure, but subsequently shows an increasingly expanded verbal function over time. This is consistent with the views of Jespersen (1956) and others.

7.3.2 Syncretism After Verbs of Motion

Evidence also suggests that a syncretism between the original participle and verbal noun took place in the environment following verbs such as *start*, *keep*, *come*, *go*, *quit*, and *continue*. Although my historical data contain only two examples of *a + V-ing* following such verbs, there are numerous examples of them cited by Visser, (1973).

(7.32) He's gone a harlot-hunting

Dryden, *The Spanish Friar*, II, i., p.138 1681. (Visser, vol.3, pt.2, p. 1911)

(7.33) when the vile man *goes a rogueing*

Murphy, *Way to Keep Him*, l,i. 1761. (Visser, vol. 3, pt.2, P. 1911)

I have not been able to find instances of the construction with a following direct object until the nineteenth century. (7.32 illustrates the older nominal construction in which the object precedes the gerund, and forms part of the nominal construction.) (7.34) shows the presence of an oblique object, antedating the presence of a direct object, apparently by a hundred years.

(7.34) I dared not *go a begging of those* that know me.

John Neal, *Brother Jonathan*, III, 221. (Visser, vol.3, pt.2, p. 1911) 1825

(7.35) My conscience *went to grinding me*

1884 Mark Twain, *Huckleberry Finn*, li, 116. (Visser, vol.3, pt.2, p. 1911)

(7.36) They *went a-testing springs* along the Portsmouth Road.

W.J. Locke, *The Great Pandolfo*, 1491, (Visser, vol.3, pt.2, p. 1911) 1925

My historical data show only two instances of these aspectual verbs, each occurring in the nineteenth century, and each with a direct object. The data cited by Visser suggest that direct objects are rare before the fifteenth century. Table 7.3 supports this with evidence for aspectual verbs, *fall* and *keep*. The numbers for these verbs with a preceding *a* are also given in Table 7.3. (The data in Table 7.3 are taken from Visser, vol. 2, pp. 1893, 1899).

Table 7.3
Percentage of Direct Objects Following the Asperitual Verbs
FALL and KEEP
 (compiled from Visser, 1973, vol.2, pp. 1893, 1899)

	<u>%</u>	<u>N</u>
FALL + Ving	0.0	0/6
FALL + a+Ving	4.4	1/23
KEEP + Ving	15.4	2/13
KEEP + a+Ving	<u>0.0</u>	<u>0/7</u>

The verbs *fall* and *keep* with a direct object do not occur before the sixteenth century.

(7.37) Then he gueth on...and *falleth a blaming monasteries*

Th. Stapleton, 118v.,13. (Visser, vol.3, pt.2,p. 1893) 1565

The pattern is essentially the same for verbs of motion, e.g. *come, go, ride, etc.*

(7.38) here he *cume stridende* fro dune to dune,
 here he comes striding from dune to dune

O.E. Hom. (Morris) ii, III, 34. (Visser, vol.3, pt.2p. 1906)

The facts appear to parallel those for the progressive. Constructions today with such verbs followed by *V-ing* are referred to as *quasi-progressives*, (Wolfram and Christian 1980). Data from Appalachian English (Wolfram and Christian 1980) show that *a-Ving* occurs in such constructions. Again this is consistent with the view that a syncretism between the verbal noun and the old participle occurred in a second environment, following verbs of motion, inception and completion.

7.3.3 Syncretism and Verb Phrase Complements

Verb phrase complements involving Equi NP Deletion are the modern English verbal gerunds in object position, e.g. *I like singing loudly*. With respect to this syntactic

position, object position, these constructions are descended from the *-Ing* participle, as shown in (7.3a) above.

The reflex of the Old English verbal noun is retained in the modern nominal gerund, e.g., *I like loud singing*. Without the presence of overt adverbial or adjectival modifiers, the modern distinction between verb phrase complement and nominal gerund can often be made on the basis of control of the matrix verb, (Wasow and Roeper 1972), (Thompson 1973).

Verb phrase complements without Equi NP Deletion were and are distinguished from gerunds in object position by the case of the object. The ambiguity between gerunds and complements without Equi NP Deletion occurs in only one context, when the participle is preceded by the pronoun *her*. In all other contexts, the formal difference between accusative (VP Complement) and genitive (object gerund) is maintained in the pronominal system.

During Middle English, the distinction between feminine accusative *hi* and feminine genitive *hire* was lost, leading to the one ambiguous context, *her*. In every instance of ambiguity, both with and without Equi NP Deletion, it is possible to disambiguate between participle and gerund, e.g. by the acceptability of adjectives or adverbs in the construction.

This difference is preserved today. Verbs fall into three classes with respect to these complements; those which can take either type, those taking only VP complements, and those taking only gerunds.

Complements without Equi NP Deletion

- (7.39) a. I like *his grovelling* gerund
b. I like *him grovelling* VP comp

- (7.40) a. They reviewed *his writing* gerund
b. *They reviewed *him writing* VP comp

- (7.41) a. *We had *their laughing* gerund
b. We had *them laughing* VP comp

Complements with Equi NP Deletion

- (7.42) a. I like *loud singing* nominal gerund
b. I like *singing loudly* verbal gerund
- (7.43) a. They heard *loud singing* nominal gerund
b. *They heard *singing loudly* verbal gerund
- (7.44) a. *They denied *loud singing* nominal gerund
b. They denied *singing loudly* verbal gerund

For this reason, and for differences in control (see Chapter Three, Section 3.4.2), the differences between the participle and the gerund have been maintained in these syntactic environments. (see Chapter Five, Section 5.6.2 for Akmajian's syntactic diagnostics which distinguish these).

Although no syncretism between these forms appears to have occurred, as it did with the progressives, and quasi-progressives, my historical data show that verbal complements have increased significantly in late modern English. Such an increase in relative frequency is in line with the view that (ING) has become increasingly verbal in usage. Table 7.4 below shows the increase in verbal function of (ING) in terms of the increase in relative frequency of the verbal constructions of progressive, quasi-progressive, and verb phrase complements. These are shown together under the column *sync*.

Table 7.4

Relative Frequency of Diachronic and Synchronic -ing
according to Morphological History

		masc.	fem.	part.	sync.	prep.
15th cent.	%	43.0	31.9	20.4	2.7	44.6
	N	71	554	235	41	66
16th cent.	%	2.4	7.6	8.7	1.5	11.5
	N	4	132	100	23	17
17th cent.	%	29.1	13.8	15.4	1.5	18.2
	N	48	240	177	23	27
18th cent.	%	6.7	5.1	10.4	5.1	7.9
	N	11	88	119	78	8
19th cent.	%	2.4	11.6	15.7	7.9	4.1
	N	4	201	181	120	6
20th cent.	%	16.4	30.0	29.4	81.3	16.2
	N	27	520	338	1233	24
	%	100	100	100	100	100
	N	165	1735	1150	1518	148

Figure 7.4

Distribution of Total Data Base according to Century

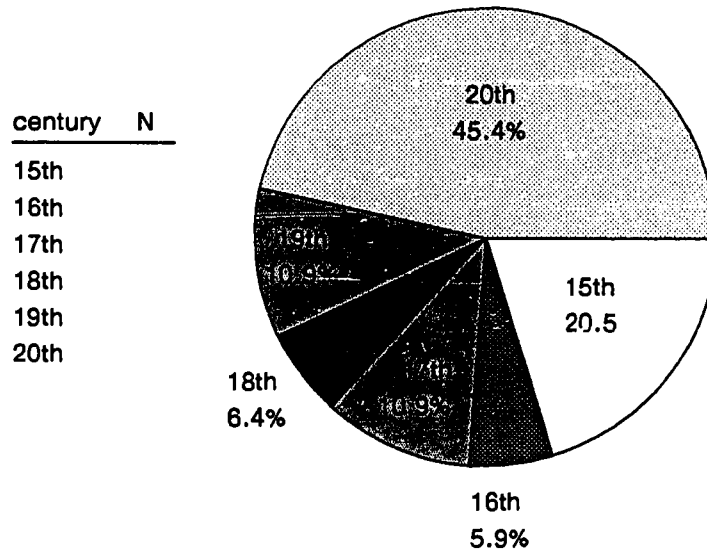


Figure 7.4 gives each century's percentage of the total data base, i.e. 20.5% of the diachronic data are taken from documents in the fifteenth century.

In Table 7.5 the proportion of direct objects found for the nineteenth century in contrast to earlier centuries are given for several participial categories. The increase over time of this verbal characteristic is evident.

	% (19th cent.)	N (15th – 19th cent.)
quasi-progressives	100	2
sentential complements	83.3	12
verb phrase complements	71.4	7
progressives	75.8	33
appositives	24.5	163

Table 7.5 shows that although direct objects following these participial constructions were not unknown before the nineteenth century, the majority of the examples are not found before then. The exception to this are the appositives.

The evidence presented in the preceding sections is consistent with the observations of scholars that other verbal attributes, e.g. the appearance of passive voice and other periphrastic constructions, occurred in late modern English, (Jespersen 1956), (Visser 1973). Jespersen states that constructions such as *the church is being built*, and the periphrastic future *Be going to VP*, do not occur until the nineteenth century. The evidence in Visser seems to support this view as well, (Visser 1973), (Jespersen 1956).

The ability of Modern English verb phrase complements to take passives *I saw John being kissed*, illustrates their further alignment with the verbal end of the continuum. That they are somewhat less verbal than progressives and quasi-progressives is shown by their inability to occur with a full range of auxiliaries.

- (7.45) a. *I saw John *may have singing* VP Comp
 b. I saw that John *could have been singing* Progressive
 c. I saw that John *could have kept singing* Quasi-progressive

From the preceding discussion it can be inferred that the only instances of the present participle in Old English which possessed verbal characteristics, such as direct objects, were the non-finite appositive participles. In the next section I would like to investigate the relation between these non-finite constructions and the verbal nouns, in

order to show how the nonfinite participles may have contributed to the increasing verbalization of the verbal nouns.

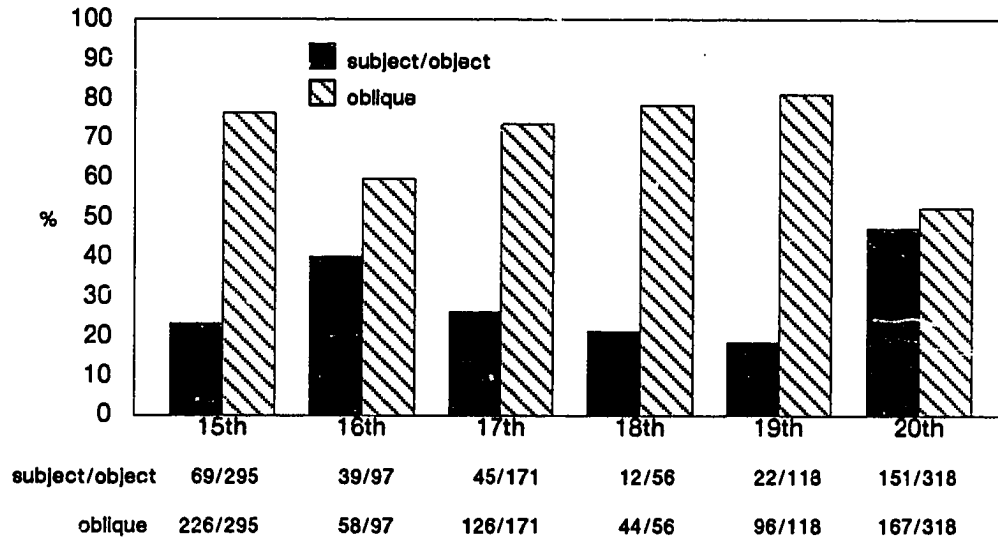
7.4 The Influence of Non-finite Participles on the Increasing Verbalization of Gerunds

From the preceding discussion it has been shown that identity of form and shared syntactic environment are not sufficient for a syncretism to take place. The two environments where a syncretism appears to have taken place involve verbal nouns in oblique position, i.e. following a preposition. Can it be argued that verbal nouns in this position exhibited greater verbalness than verbal nouns in subject or object position? If so, is it these constructions which contributed to the eventual shift towards the verbal end of the continuum, and why should oblique gerunds be more verbal?

The distribution of gerunds for the diachronic and synchronic data shows that gerunds in oblique position have the highest relative frequency in both corpuses, written as well as spoken.

Figure 7.5

Distribution of Gerunds in Subject/Object Positions versus Oblique Position by Century



In general, oblique gerunds are found in clause final position, sometimes in clause initial position. These are the sites for appositive participles as well. Both constructions are more loosely conjoined to the matrix clause than verbal nouns in either subject or object position. In addition, there are discernible parallels in adverbial function between the appositives and the oblique verbal nouns. The (a) examples illustrate uses of the appositive participles, the (b) examples the uses of the oblique verbal nouns.

CAUSALITY

(7.46) a. Sir Samuel Baguel is lately slain there, *being stabd by Sir Laurence*

(Letters of John Chamberlain, p. 23) 16th century

b. God zelde yow for zoure labore for me *for gaderyng of myn mony*

(Paston Letters, p. 56) 15th century

TEMPORALITY

- (7.47) a. In the day, forsothe, folwoyng, I *beholdyng the fynger* I perceyued that the arsenek had wrouz tlitel or nozt.

(John Arderne, p. 45) 15th century

- b. Dr. Parkins, *at his first comming out of Denmarke*, made his braggs that he had bought...

(Letters of John Chamberlain, p. 34) 16th century

MODALITY

- (7.48) a. (he) set upon him as he was comming out of his coach, *wounding him in three or four places*.

(Letters of John Chamberlain, p. 206) 16th century

- b. Wee are very vigerous *in asserting our Religion*

(Essex Papers, p. 177) late 17th century

GOAL

- (7.49) a. Lord yett in mercy shew mee favor in him, *making him a comfort*.

(Diary of Ralph Josselin, p.156) 17th century

- b. ...the generallitie of ye Privvy Councell immediately move *for ye setting up of ye Militia here*.

(Essex Papers, p. 148) 17th century

The preposition makes it clearer what the relationship between the gerund and the main clause is; i.e. whether the gerund expresses a relationship of causality, temporality,

modality or goal. The appositive leaves this relation unspecified, or perhaps specified within a larger context.

In contrast to these shared functions, verbal nouns in subject and object position do not function adverbially. The disjunctivity in function is shown in Table 7.7

Table 7.6

Functional Distribution of Verbal Nouns and Appositive Participles

	adverb	adjective	coordination	subject	object
appositive	+	+	+	-	-
oblique verbal noun	+	+	-	-	-
object verbal noun	-	-	-	-	+
subject verbal noun	-	-	-	+	-

Because the number of oblique gerunds functioning in predicative, or adjectival functions was low, I did not include numbers here for them. The coordinate function, concatenating two separate propositions, is exclusive to appositive participles.

Table 7.7 shows the distribution of oblique verbal nouns and appositive participles in a subset of my historical corpus in terms of their adverbial function. (These data represent the 15th – 17th centuries and were originally collected for another study, (Houston 1983)). A comparison is made to the distributions of appositive participles in Old English, (Callaway (1901)).

Table 7.7
Distribution of Oblique Verbal Nouns and Appositive Participles
according to Adverbial Function
(15th – 17th centuries)

		causality	temporality	modality	goal	Total
oblique verbal noun	%	20	23	40	17	100
	N	63	71	124	54	312
appositive participles	%	41	13	38	8	100
	N	54	17	50	11	132
Old English participles (Callaway)	%	49	13	30	8	100
	N	223	58	136	38	455

It has already been shown (Table 7.2) that appositive participles have exhibited the verbal trait of transitivity since Old English. Table 7.9 shows that direct objects appear more frequently after verbal gerunds in oblique position than with those in subject and object position.

Table 7.8

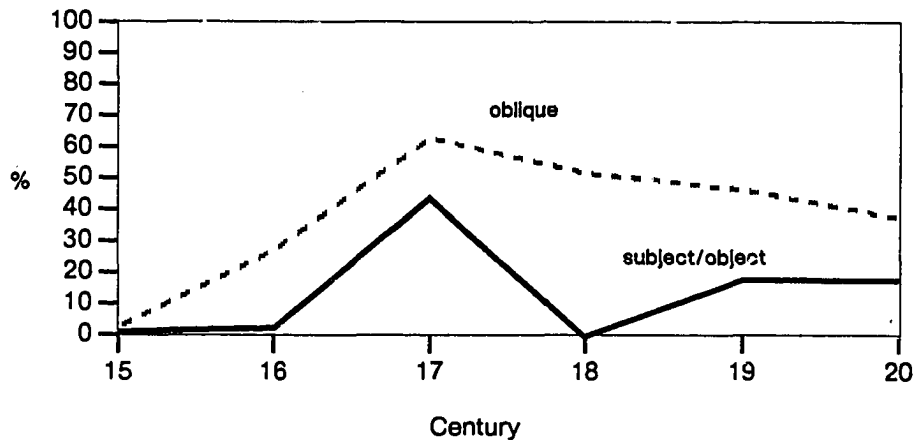
**Distribution of Direct Objects following Verbal Nouns
according to Syntactic Position**

	15th	16th	17th	18th	19th	20th
subject/object	1/69	1/39	20/45	0/12	4/22	33/184
oblique	7/226	16/58	80/126	23/44	45/96	81/214
	295	97	171	56	118	398

During the seventeenth century the difference between oblique position with direct objects and the other positions is significant at .05, chi square = 4.95. The percentages shown in Table 7.8 are shown in graphic form in Figure 7.6 below. (Note: the data for the 20th century include both British and American gerunds).

Figure 7.6

Graphic Representation of Data shown in Table 7.8



An analogic process of extending the use of direct objects from appositive participles to gerunds may have initially occurred in one syntactic environment, oblique position, where the perceived similarities would have been greatest.

The spread of this verbal trait could have further laid the groundwork for a syncretism between the verbal noun and the participle in the environments following *Be* and motion verbs, with the eventual reduction and loss of the preposition. Again, the syncretism involved verbal nouns in oblique position.

From the above observations the conditions under which (ING) has become increasingly verbal begin to emerge. The view that there was a syncretism between the participle and the gerund is supported by the relatively high frequency of gerunds which were in syntactic environments appropriate to such a syncretism.

Table 7.9
Contact Points in the Grammar

{IND}	{ING}
<p>1. Appositive participles non-finite adverbial clause final</p>	<p>Gerunds in Oblique Position non-finite adverbial clause final</p>
<p>2. Participles After BE predicative finite intransitive</p>	<p>Oblique Gerunds After BE predicative non-finite intransitive passive</p>
<p>3. Participles After Motion Verbs adverbial finite intransitive</p>	<p>Oblique Gerunds After Motion Verbs adverbial non-finite intransitive</p>

These observations support the view that the original Old English present participle {IND} and the original Old English verbal noun {ING} formed a new category in English, through a syncretism of the original forms in certain environments. The original categories continued to exist in their original environments, e.g. the present day non-finite participles and the nominal gerunds.

Yet the new syncretism between gerunds and participle has continued to influence the original categories; the appearance of the periphrastic auxiliaries with verbal gerunds occurs at about the same time as their appearance with the progressive, the late eighteenth century. (6) This is also the time during which the modern progressive passive comes into use. Although no examples occurred in my corpus, it is possible to form the progressive passive with a verbal gerund: *We didn't know about his being evicted.*

7.5 The Limits of Discrete Models of Change

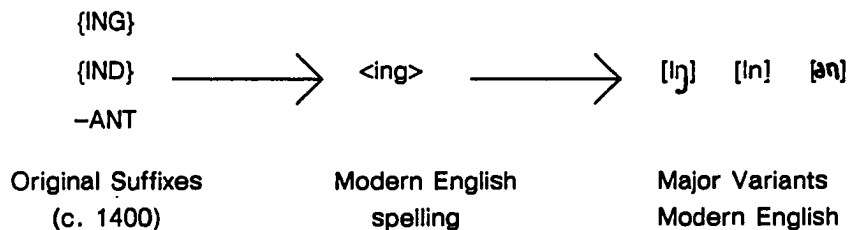
In the preceding sections I have presented one account of how the gerunds have become increasingly verbal over time. This was shown to be a combination of both structural and functional conditions.

In this section I will argue that the use of the variable (ING) as a descriptive device provides a more adequate description of the synchronic facts, than a model which assumes the existence of discrete non-variable morphemes.

The task for any model, discrete or probabilistic, is to represent the various synchronic categories taking *-ing*, which historically did not all occur with this suffix. Figure 7.7 schematizes the change from three originally different suffixes, to the subsequent formal identity.

Figure 7.7

Schematization of Formal Identity of Three Suffixes



The suffix *-ant* represents the prepositions which were borrowed originally from French, e.g. *durant* 'during', *accordant*, 'according'. I have not been able to find evidence which pinpoints the replacement of the French-borrowed *-ant* at a date earlier than the general replacement of *-ind* with *-ing*. Chaucer shows prepositions with both *-ant* and *-ing*. I am assuming that the replacement of both *-ant* and *-ind* with *-ing* took place at approximately the same time, although this is worthy of further investigation.

Figure 7.7 does not resolve the issue of whether synchronic (ING) represents a single morpheme, or whether there exist separate, although homophonous morphemes. Either solution will still face the problem of accounting for the emergence of a new set of categories, essentially verbal, as well as the non-random variation between the (ING) variants.

7.5.1 Discrete Models of Synchronic (ING)

The earlier discussion in this chapter of generative analyses did not resolve the issue of the grammatical status of *-ing*, either in terms of discrete syntactic features, or in terms of derivational versus inflectional status. In Chapter Four it was shown that dividing the synchronic British data according to a discrete feature matrix, even retaining gerunds in a fifth category by themselves, resulted in a significant change in the log likelihood, and a worse fit, than by divisions which are more in accord with Ross's continuum, (see Table 4.11). Dividing the gerunds themselves as nominal and verbal nominal or verbal categories also resulted in a significant change in the log likelihood, and a noticeably worse fit than shown for the non-discrete model, (see Table 4.9). In that case nominal gerunds were classified as [+N -V], and Acc-*ing*, and verbal gerunds are classified as [+V -N].

Any discrete model of synchronic (ING) is faced with the problem of accounting for the probabilistic correlation between the phonological variants and the grammatical categories of (ING). In a discrete model, there would be either four homophonous morphemes (discrete feature matrix) or two homophonous morphemes (inflectional and derivational). In either instance each morpheme must be described as possessing more than one allomorph, since observation of actual usage indicates this to be the case.

Yet these traditional models make no provision for noncategorical distributions of the allomorphs. Traditionally, allomorphs have been postulated to handle cases such as the English plural, where the three allomorphs [əz], [s], [z] are in complementary distribution. This is not the case for the allomorphs of (ING).

If four morphemes are postulated, then each of these morphemes contains the G and N allomorphic variants, since words ending in *-ing* show some variation between N and G for each of these four grammatically defined categories. Similarly, if there are only two morphemes, both must contain N and G allomorphs for the same reasons. But in neither

discrete model of *-ing* is there any motivated account for the observed *probabilistic* association of the G variant with one morpheme and the N variant with another. The descriptive limits of these types of discrete models are reached by the observed patterns of *-ing* usage. The price of preserving discrete categories is a loss in predictive power.

The probabilistic effects described in both chapters Four and Six cannot be explained as performance errors. The statistics show that the chances of this distribution being due only to chance, e.g. to performance error, are about 1/1000, i.e. chi square is significant at .001. Performance errors would be expected to occur randomly. The fact that the phonological variants are associated on a continuum with grammatical categories which themselves have been shown to exhibit a continuum between highly nominal and highly verbal characteristics, goes against such a performance view of the variation.

A further problem with the discrete model is that there is no way to include monomorphemic /In/ within the observed variation. That such categories should be included in the description of the variation is shown by both British and southern American data, in which proper names such as *Manning* and monomorphemic common nouns such as *pudding* and *dumpling* manifest the /In/ variant.

The descriptive advantage of proceeding from a variable, as opposed to discrete linguistic elements, is that observed, directed patterns of variation are accounted for, instead of becoming unexpected, unrelated variants, merely for the sake of preserving abstract, absolute contrasts.

Typically, morphemes are defined as elements standing in contrast to other elements, the contrast being a difference in meaning. Thus, *-ing* in the word *ceiling* is not morphemic today, because there exists no contrast to a verb *ceil*, nor a nominal zero form *cell*. On the other hand, the noun *sewing* is bimorphemic, since it stands in contrast to the verb *sew*.

There are other cases in which the number of contrasts is not the same for words, which nevertheless are not monomorphemic. For example, there are no corresponding verbs *rail* and *tube* to the nominal forms *railing* and *tubing*. On these grounds it might be inferred that *railing* and *tubing* are monomorphemic, similar to *ceiling*. Yet there are contrastive nouns *rail* and *tube* which don't mean exactly the same thing.

Railing and *tubing* may refer to the general material from which *rails* and *tubes* are made. The situation is similar to the relation between *pirate* and *piracy*. In this instance,

there is no change of category from noun to verb, since both are nominal, but there is a shift from an entity to an abstraction, the latter sense conveyed by the suffix *-cy*.

Similarly, there is no change in category from verb to noun with *tube* and *tubing*, but there is a shift from concrete to abstract. On this basis there is some reason for assuming *-ing* with *railing* and *tubing* to be derivational, similar to *-cy* in *piracy*.

Yet *railing* and *tiling* do not maintain equal numbers of contrasts in the language. In the case of *tiling* there is the contrast to the verb *tile*, as well as to the noun *tile*. *Railing* contrasts only with the noun *rail*, since there is no verb *rail* with this meaning in Modern English.

In Chapter Five (Section 5.5.2) the history of a number of these nouns was discussed, a process of some of them becoming monomorphemic was shown. This historical process (which may be ongoing today) is accounted for by the variable model, since the model allows for a dynamic continuum in which elements, one by one, may become increasingly monomorphemic according to the contrasts which they maintain.

Evidence has been given already in support of the view that nominal and verbal attributes lie on a continuum. The situation described for *railing* and *tiling* represents a continuum with respect to monomorphemic/bimorphemic status. Because grammatical types are not postulated as discrete, then grammatical tokens may exhibit change, one token at a time.

A non-discrete model should predict that, if there is a high correlation between categories towards the verbal end of the continuum and one variant (apical N), and a high correlation between categories towards the nominal end of the continuum the the other variant, (velar G), that categories which exhibit both verbal and nominal traits should show an intermediate correlation with the phonological variants. This is in fact the case as shown Table 4.9, Chapter Four, with the gerunds.

As Labov has pointed out (1972) the use of variable rules within the descriptive apparatus of linguistics is an extension of the apparatus, i.e. it allows for the expression of a new set of observations within the description of a language's grammar.

Because I have argued that the variable (ING) itself should be represented in the grammar, the question how to represent this for high G (or categorical G) speakers arises. It would not be reasonable to assume that categorical G speakers have no means for distinguishing inflectional and derivational processes. One possibility, but one which can

only be resolved by future empirical research, is that learners exposed to performance exhibiting the grammatical effect, i.e. in G/N communities, have an additional clue to establish the categories along the continuum. Learners in a high G environment would rely more heavily on the syntactic and discourse context to distinguish *building* as a concrete noun, and *building* as a progressive.

7.5.2 Discrete Models of Diachronic Change

Among recent theories of language change concerned with syntax and morphology is the theory of *radical re-analysis* postulated by Lightfoot (1979). The theory is that languages may undergo various unrelated, and relatively insignificant, changes which affect different aspects of the grammar.

Such a series of changes may proceed for some time (even centuries) but eventually their separate effects contribute towards a cumulative opacity in the grammar, realized through an increasing derivational complexity of forms.

A critical point is reached in derivational complexity when language learners are no longer able to *abduce* (7) the underlying representations of their grammatical categories from the surface structures. The result is a re-analysis of the underlying forms in such a way that the derivation from underlying to surface forms is less opaque to the language learner. The formal limits placed on derivational complexity are set by the *transparency principle* (Lightfoot 1979, p.121) which is the motivating principle behind radical (structurally discrete) analysis. There is an inherent limit on the complexity of any grammatical derivation.

This theory presupposes the Extended Standard Theory of Chomsky. It depends crucially on the notions of *transformation* and *syntactic autonomy*. Within this framework, complexity in a derivation is typically expressed as the number of steps (each step represented by the output of some rule application) required to go from deep to surface representation. Within this framework, as already discussed in Chapters Three, Four and Six, both syntactic features and syntactic categories are assumed to be discrete bundles of features.

The relevance of this discussion to (ING) is that Lightfoot makes certain assumptions about the history of gerunds in his analysis of the infinitive which I argue cannot be maintained.

7.5.2.1 Radical Re-analysis and Infinitives in English

Lightfoot's thesis concerning English infinitives is to argue that they have undergone a radical re-analysis from NP to VP. He contends that this category flip occurred during the sixteenth century. Fundamental to his analysis is the assumption that there exist discrete categories such as NP and VP. The postulation of a grammatical continuum is antithetical to the theory of radical re-analysis. However, the arguments which Lightfoot offers in defense of this position present the same problems encountered when trying to characterize the gerunds as discrete nominal or discrete verbal categories.

The argument for the re-analysis of infinitives is as follows: It is assumed that the verbal nouns exemplify a clear case of NPs in Old and Middle English. If this is a correct assumption, it is then necessary to demonstrate that infinitives shared nominal attributes with verbal nouns in Old and Middle English. Lightfoot considers twelve criteria for nominal status which he states are met by the verbal nouns. (Lightfoot uses the term *gerunds* for these Old English constructions).

Of these twelve criteria, only five can be viewed as diagnostic. Five of the criteria, which define the syntactic positions that gerunds may occur in, are also relevant for sentences. These five criteria state the environments which gerunds (and NPs) may occur in: subject and object position, attributive adjuncts (in the genitive) to a noun, as well as being complements to the copula and antecedents to relative clauses. (See Lightfoot, p. 190 for his examples). Yet these same positions may contain headless sentences, i.e. VPs, and because of this, cannot be used as crucial distributional tests of NP status. They are therefore not, strictly speaking, diagnostics which can establish the nominal status of gerunds. This point is acknowledged by Lightfoot. Two criteria which are diagnostic for NPs, are the ability of an element to occur in a passive or cleft construction. Gerunds, however, are not attested in either of these constructions in Old English. Lightfoot assumes that these unattested forms were grammatical in Old English. Based on his own intuitions, he constructs the following cleft and passive constructions with Old English

verbal nouns. Unfortunately these examples cannot be taken as evidence for any analysis, because there is no way for other scholars to replicate such findings in their own research by any acceptable canons of historical methodology.

(7.50) hit waes (Saems) *drincung* þe mislicode me
it was Sam's drinking that displeased me Cleft (Lightfoot, p. 191,)

(7.51) heo waes on mode onhryned fram (Saems) *drincunge*
she was in (the) heart touched by Sam's drinking (Lightfoot, p. 191,)

Of the five diagnostics left, one refers to the presence of a preceding preposition (the oblique gerunds) and one to the fact that gerunds took nominal case markings. (8) The three remaining diagnostics refer to the presence of adjectival modifiers, determiners and possessive pronouns.

These diagnostics are tested on the Old English infinitive, but only two are found to hold true. Unfortunately the other three are among the crucial core set for nominal status in English. Old English infinitives are not attested with adjectives, determiners or possessive pronouns.

Having found no real examples of Old English verbal nouns in passive or cleft constructions, it is puzzling why Lightfoot decides to construct hypothetical examples of these for the Old English infinitive as well. Again, these are based on his intuitions of Old and Middle English. In a footnote (p.193) he states that both passives and clefts occur extremely rarely in Old English. (Given their lack of attestation for the gerunds, it would seem all the more important to cite real examples of these for the infinitives!)

From these observations, the nominal status of the Old English infinitive has not been satisfactorily established. Five of the diagnostics, as pointed out by Lightfoot himself, apply to NPs and sentences, two of the criteria must be questioned on the grounds that no attested examples have been cited, and three of the remaining five diagnostics for NP status do not occur with Old English infinitives.

Evidence for the radical re-analysis of infinitives from NP to VP status rests on the observation that the construction *for NP to V* begins to occur (mid sixteenth century according to Lightfoot) and the final disappearance of inflectional case-ending on the

infinitive takes place. Also, he cites the disappearance of nominal constructions including *for to V* and *prep to V*.

The loss of inflectional *enne* on the infinitive can hardly be a crucial diagnostic for a re-analysis from nominal to verbal status. Many nouns in Old English which have remained nouns to this day lost their inflectional case endings, e.g. *word* (Old English *wordum* dat/instr. pl., *worda* gen. pl., *wordes* gen. sing.); *sun* (Old English *sunnan* dat. sing., *sunnena* gen. pl.). Moore (1927) has argued that the loss of inflectional *n* during Middle English was a regular sound change. (9)

Lightfoot's conclusion that there is "a striking simultaneity" (p.194) of the changes described gives new meaning to the term *simultaneous*. The earliest attested appearance (11) of each *for NP to V* construction is not a consistent 200 years after each corresponding *for to V*, as he states it is. The dates presented on p. 187 (Lightfoot 1979) show that the range is actually between 6 and 350 years. This span of time does not support the view that there was a *radical re-analysis*, as opposed to a gradual *drift* (Sapir 1922) towards greater verbal status.

7.5.2.2 The Assumption of Gerunds as Discrete NPs

The use of gerunds as a point of contrast for the verbal reanalysis of the infinitive is a poor choice, given the gerund's own history of increasing verbalization, as well as its notably non-discrete status between nominal and verbal attributes.

Even the presence of determiners does not always establish discrete nominal status. It has already been mentioned (Chapter Five, Section 5.5.5) that a nominal trait, the determiner, co-occurred with a verbal trait, the direct object, in gerunds of the form *the sending the army*.

Visser (1973, vol 2, pp.1212–1214) cites numerous examples of this type of construction.

(7.52) *ze may know a great hert by þe beryng þe word*

1410 (York, Master of the Game, ed. Baille-Grohman, 76).

(7.53) *lest the naming it breadde*, might make some men were it were but bread in deed

1534 (St. Thom. More, 1338 Cz.)

(7.54) *The not observing this rule* is that which the world has blamed in our satorist.

1684 (Dryden, Essay Dram. Poesy, 310)

(7.55) *The avoiding them* is not an object of any moment.

1762 (Th. Sheridan, Lectures on Elocution, 180)

(7.56) *The writing the verbs* at length on his slate, will be a very useful exercise.

1829 (W. BEck, Outline of Eng. Grammar, 20)

(7.57) The difficulty is in *the getting the gold* into Erewhon.

1902 (Sam Butler, Erewhon Revisited, 562, Mod. Lib.)

Table 7.10 shows the numbers of examples cited by Visser for the centuries in which these examples are attested. (10)

Table 7.10

Attested Examples of Gerunds with Determiners and Direct Objects
(Visser 15th –19th centuries)

15th	16th	17th	18th	19th	20th
14	6	29	48	26	4

One implication of the theory of radical re-analysis seems to be that intermediate status for grammatical categories cannot be maintained without a cost to the grammar in terms of simplicity, (Lightfoot 1979, pp. 374–378). Therefore fuzzy areas in the grammar

are expected to undergo eventual restructuring, i.e. to realign themselves into discrete categories. Although examples such as (7.52) – (7.57) are not grammatical in Modern English, the restriction appears to apply only to definite articles, demonstratives, and most quantifiers. Possessive pronouns are acceptable. Indefinite articles and some quantifiers and demonstratives appear to be marginally acceptable.

(7.58) They warned us that there was *no hazing undergraduates*.

(7.59) *This teasing John* all the time has got to stop.

(7.60) *Tom's winning the election* was a big upset.

This existing range of co-occurrence in modern English between different types of DET and verbal gerunds suggests that speakers are able to retain a continuum of construction types within their grammar. Horn (1975) acknowledges the difficulty of his analysis in just this set of examples. The evidence discussed in this chapter concerning the increased verbalization of categories with (ING) does not support the conclusion that there was a radical category re-analysis of the sort described by Lightfoot.

The preservation of a probabilistic effect over time, and one which exhibits grammatical contrasts would seem to be in conflict with the types of change expected with discrete, structural models. Such a probabilistic effect might be expected in a discrete model of change at the onset of the change. This effect would be explained in terms of different individuals being at different points with respect to the change, i.e. some would be associating apical N with verbal categories and some would not.

But the continued presence of such an effect would not be predicted by such a model, since it would expect the eventual resolution of the grammatical effect, either by a categorical association of G with nominals and N with velars, or an invariant homophony between derivational and inflectional {ING}. The sustained existence of this grammatical effect over several centuries disconfirms the hypothesis that grammatical changes must result in discrete realignments of linguistic elements, or that such realignments must occur in a relatively short time span.

7.6 The Replacement of Infinitives with Gerunds

Further evidence that neither gerunds nor infinitives maintained a strictly nominal or verbal status in the past is found in the trend of replacing the infinitive with a gerund. Visser (1973) lists verbs which historically took infinitival complements of the form *Verb + (to) Infinitive*, some of which cannot take such complements in Modern English. Among these verbs are :

<i>pass</i>	<i>admire</i>	<i>avoid</i>	<i>attain</i>	<i>understand</i>
<i>fancy</i>	<i>despise</i>	<i>deny</i>	<i>effect</i>	<i>suppose</i>
<i>lust</i>	<i>frolic</i>	<i>escape</i>	<i>frame</i>	<i>know</i>
<i>will</i>	<i>shame</i>	<i>evade</i>	<i>obtain</i>	<i>guess</i>
<i>keep</i>		<i>forgive</i>	<i>perform</i>	<i>doubt</i>
<i>hunger</i>		<i>waive</i>	<i>prevail</i>	<i>conceive</i>
<i>force</i>		<i>loss</i>	<i>procure</i>	
		<i>miss</i>	<i>purvey</i>	
			<i>shape</i>	
			<i>speed</i>	

- (7.61) Fro first that holi cherche hath wayved *To preche*, and has the swerd received. '
- from the beginning that holy church has waived preaching and has received the sword.
- c.1390 Gower, C.A.I.363. (Visser, vol. 3, pt.1, p. 1319)
- (7.62) Yff any persone denye *to pay* any taxe...
- c.1472 Cov. Læet Bk. (EETS) 384. (Visser, vol. 3, pt.1,p. 1319)
- (7.63) If ye misse *to be burgeys of Maldon*...ye may be in a nother plase. if you miss being Burgess of Maldon...you may be (that) in another place.
- c.1472 Paston Letters 5, 151. (Visser vol. 3, pt.1, p. 1319)
- (7.64) Divers idell...persons...have not desisted *to take eggs* of faucons...out of the nestes. diverse idle persons have not desisted from taking eggs of falcons out of the nests.
- 1539 Act 31, Henry VIII, C, 12. (Visser vol. 3, pt.1, p. 1319)
- (7.65) and he said, 'Sibboleth' for he could not frame *to pronounce it right*'
- 1611 Bible, Judges, 12, 6. (Visser vol. 3, pt.1, p.1322)
- (7.66) The dangers he conceives *to foresee*.
- 1708 Swift, Sacram. Test; Wks 1755 II, 1, 137. (Visser vol.3, pt.1, p. 1323)
- (7.67) I recollect *to have read* somewhere of Sir T. Moore, how...
- 1860 J.W. Warter, The Sea-board and the Down II, 458. (Visser vol.3, pt.1, p. 1323)

The acceptability of examples (7.61) – (7.67) may vary to the modern ear, but in general a gerund is more acceptable. Verbal gerunds may be substituted in these examples, but not always nominal gerunds, as the following pairs of examples make clear. Although judgements may vary somewhat, the direction of acceptability should be the

same, verbal gerunds are never worse than nominal gerunds. (The examples under (a) in each pair represent verbal gerunds, the examples under (b) represent nominal gerunds).

- (7.68) (a) That church has waived preaching the Gospel.
(b) That church has waived the preaching of the Gospel.
- (7.69) (a) if any person denies paying any tax
(b) if any person denies the paying of any tax
- (7.70) (a) if you miss being Burgess of Maldon
*(b) if you miss the being of Burgess of Maldon
- (7.71) (a) idle people have not desisted from taking eggs?
(b) idle people have not desisted from the taking of eggs
- (7.72) (a) the dangers he conceives foreseeing
*(b) the dangers he conceives the foreseeing of
- (7.73) (a) I recollect having read somewhere
*(b) I recollect the having read somewhere

In 7.65 the use of *frame* is now obsolete; a following gerund in this instance does not make the example more acceptable. (11)

7.7 Summary on Verbalization of (ING)

The acquisition of verbal traits by the Old English verbal noun appears to have been well established before the widespread use of the progressive, although there are attested examples of the progressive with a direct object as early as the fifteenth century, (see example 7.10). The acquisition of verbal traits by the progressive is assumed to be a reflection of the process of evolution from a preposition + verbal noun in the syntactic site following main verb *Be*, to the modern finite periphrastic verb construction.

The increased verbal function of the suffix may have contributed to the survival of the apical N, despite the rising prominence of velar G, assuming that the original morphological distinction between participle and verbal noun was in part signalled by such a phonological difference.

The categories of gerund in Modern English (nominal and verbal gerunds, Acc-ing) have been shown to occupy an intermediate position between more nominal and more verbal categories with respect to the dependent variable, (see Table 4.9). This is an expected result of a model which postulates non-discrete grammatical categories lying along a continuum.

Assuming that derivational and inflectional categories are partly differentiated on the basis of G and N, categories which are not exclusively nominal or verbal, and hence not employing the *-ing* suffix exclusively either inflectionally or derivationally, would reflect their intermediate status along the continuum by a corresponding intermediate probability of applications of the dependent variable.

The types of evidence evaluated by Ross (1972) (1973), and the type of evidence discussed in this dissertation both support the idea that grammatical categories exist along a continuum which does not exhibit sharp boundaries between the categories. The data for (ING) show non-deterministic patterns of categorization, but nevertheless indicate observable directionality to the patterns of variation described for the grammar.

In this chapter I have tried to show how a formal identity between two distinct morphemes led to a syncretism between them under certain conditions, yet did not do so in others. I have argued that such a syncretism resulted in the increased verbal function of (ING). I have also tried to show that neither purely discrete synchronic models of (ING) morphology, nor discrete diachronic models of syntactic and morphological change can satisfactorily account for the facts of modern (ING), or the facts of its historical development. In presenting these arguments I have remained within the realm of internal linguistic factors.

In the next chapter I will consider the effects of external, social evaluation, and how this may be seen to affect linguistic structure. In doing so, my position will move a step further away from discrete models of language which usually relegate external effects on language to linguistic performance, and do not consider such factors capable of shaping a speaker's competence. I will provide evidence which supports the view that external factors can, in fact, affect such competence.

Footnotes

1. Chomsky argues that gerundive nominals (verbal gerunds) are closer both structurally and semantically to full sentences in contrast to derived nominals whose semantic relation to the corresponding sentence is often irregular, (Chomsky 1970, p. 187).

2. They also occur as pre-nominal modifiers, and as such share this environment with participles. However, my data do not show these occurring until late Modern English.

3. The five examples cited by Visser (vol.3, pt.2, p.1994) are the following:

(a) saul e synne intinga gif *beop letting*...he geswutelige =peccati causa fuerit latens...pate faciet

(Interlin. Rule St. Benet (ed. Logeman) 80,10

letting may equal *lutling/lutende* (to be latent)

(b) woe...gehyhton thaette he were *eftlesing* israelis.(Lindesfarne Gospels, Luke, 24,21) = O.E. Gospels we hopedon thaet he *to alyserne waere* israhel

eftlesing = redemption (Bosworth and Toller 1898)

(c) and was menige...*throwungo - throwenda* (Lindesfarne Gospels, Mark, 5, 26)

(d) *waedling* ic *eam* = egens sum ego (Junius Psalter, 87, 16)

waedling = *waed* + *lling* = a needy person

(e) Hwaet *is* elde behoui(n)ge (OED) (Lamb. Homilies, 119)

4. Bogholm (1939) states that the construction *a + Ving* in an active sense has not been recorded until the beginning of the sixteenth century, (Visser 1973, p.1996).

5. The most common prepositions antedating the use of the reduced construction were *on* which was frequent during the time of Old English, and *in* which became common from

the fourteenth century, (Visser 1973,). The preposition *at* occurred rarely, (see example 7.4).

6. With one exception in the fifteenth century, the earliest instances of the progressive with *have* and *be* in my corpus occur in 1849, in the diary of Alfred Jackson. This is also true for the periphrastic future and the passive progressive. Both the gerunds and early progressives following *Be* occur with past or present forms of *Be* at least as early as the fifteenth century, in this corpus. The construction *to be going* occurs in this corpus for the first time during the late sixteenth century; *the King of Spaine is said to be going into Portingale* (Chamberlain Letters, p. 40)

7. Lightfoot appeals to Pierce's notion of abduction, (Pierce 1966). In contrast to deduction which which derives a result from a general law and a case, abduction takes an observed result, appliea a law and infers a case. Abduction is to be distinguished from induction as well, the latter takes observed cases and results and infers a law. (see Lightfoot 1979, p. 349).

8. The presence of a preceding preposition is not unique to nominals in every instance; there are examples of non-finite adverbial appositive clauses which occur with a small set of the prepositions, particularly *in*. see Callaway (1901) and also Visser 1973).

9. One table provided by Moore shows the percentage of loss of final n in a number of twelfth century texts. The percentages show that loss of final -n occurred across grammatical categories.

weak nouns sg.	283/1286	22%
weak adjectives	400/1538	26%
strong adjectives d.s. pl.	260/1239	21%
weak nouns pl.	45/501	9%
strong nouns d. pl.	284/1290	22%

from Moore 1927, p. 244

Only weak plural nouns show a significantly lower loss of final -n in these data. Based on data similar to that shown above, Moore concludes that

"the loss of final n in late Old English and early Middle English was initially a combinative sound change that resulted in double forms, with and without n, distributed according to the phonetic environment of the n;" (Moore 1927, 256). (See Moore 1927 for arguments on the phonetic conditioning of loss of n).

Moore goes on to conclude, based on his evidence, that the primary distribution motivated by sound change was then modified later by analogical processes, one effect of which was to accelerate the loss of n in singular nouns and retard the loss of it with plural ones. (Moore 1927, p. 256).

10. The examples used throughout the discussion of the infinitive are troublesome. Lightfoot states that they are primarily taken from Visser (vol. 2) without saying which ones, and without explicit reference to any of them. Other examples, cited as instances from 1000–1300, are clearly rephrased into modern English, without either citing the original source, or acknowledging the paraphrase. This practice makes it very difficult to evaluate the merit of Lightfoot's arguments, because there is no basis for controlled comparison to other bodies of historical data.

11. Visser cites one example from the fourteenth century; *God glorifieth be dredand our Lord*. (c.1350, Midland Prose Psalter, EETS, 14,5) I excluded this example from the discussion because of the participial form with *and*. Whether the author was confused by the presence of a direct object, or whether it is a mistake, is not clear.

8.0 The Evaluative Function of (ING): A Contrast to Grammatical Function

8.1 Introduction

In this chapter the effect of the social evaluation of (ING) is reported on. My hypothesis is that the social evaluation of (ING) is historically more recent than the observed grammatical effect, and not always consistent with it. I am arguing for the existence of external factors which can influence the course of history of a linguistic element. Functionalist theories of language change, e.g. Martinet (1952), (Langacker 1977) entails a limited concept of information which does not include the notion of *social* information. Without denying the importance of the *information theory* perspective, I hope to show that social factors exert an effect in language change.

The postulation of discrete abstract oppositions in language has proved to be a powerful analytic tool within modern linguistic theory. Yet as Weinreich, Labov and Herzog (1968) have observed,

"A serious weakness in the empirical foundations of the various theories of linguistic change considered here stems from their automatic reliance upon cognitive functions as the prime determinant of linguistic behavior. The assumption that perception was determined by contrastive (morph-distinguishing) units was never based upon a sound empirical foundation, but rather upon a large number of uncontrolled (anecdotal) observations of cases where perception did match phonemic categories. A growing body of evidence from controlled sociolinguistic studies indicates that perception is indeed controlled by linguistic structure, but it is a structure which includes not only units defined by contrastive function but also units defined by their stylistic role, and their power to identify the speaker's membership in a specific subgroup of the community." (Weinreich, Labov and Herzog 1968, p. 152)

The views of Wyld (1936) on the social evaluation of *-ing* have been discussed in Chapter Two. Wyld, without benefit of the methods and results of current variation theory, interpreted the occasional spellings <in> of *-ing* as evidence that during late Middle and early Modern English, the invariant pronunciation of the suffix was apical /ɪn/. Wyld

contends that it was only later during the nineteenth century when this pronunciation became stigmatized, pronunciation finally succumbing to the influence of the standard spelling, (Wyld 1936).

My own view is that Wyld is partially correct, to the extent that he recognized a type of social evaluation which did manifest itself in the early nineteenth century. Yet from the evidence presented in Chapters Four and Five, I have argued that variation existed from at least the time when *-ind* was replaced with *-ing*. This is in contrast to Wyld's view that there was invariant apical pronunciation at that time.

Detecting the presence of social evaluation in historical documents at the level of *social indicator* and *social marker* as proposed by Labov (1972) is considerably more difficult than it is for recorded speech, because the conventions of spelling substantially reduce the number of observable variants, as compared to the variation observed in speech.

It is much easier to detect social evaluation at the level of stereotyping in written documents, since this type of evaluation occurs at a conscious level. Historical writing which consciously attempts to imitate dialectal variants, as exemplified in fiction concerned with regional settings and characters, is one place to look for the presence of social stereotyping of linguistic elements. It is this level of evaluation which I think Wyld is referring to in the nineteenth century.

8.2 Evidence of Social Evaluation in Prescriptive Grammars

No grammars or spellers which I have found from 1580 to 1794 give reference to alternate pronunciations of *-ing* as [ɪn] and [ɪŋ], nor reference to colloquial spellings of *-ing* as <in'>. William Bullokar (1586) states that the suffix *-ing* occurs on the endings of both participles and gerunds.

Owen Price (1668) gives evidence of sensitivity to the existence of homophonous pronunciations in prescribing that speakers are to avoid the pronunciation of, e.g.

hemmoroids which makes it homophonous with *emeralds*. Yet he makes no reference to the existence of possible homophones such as *bobbing* and *bobbin*.

Solomon Lowe (1755) shows the following pairs to be pronounced the same, though he does not indicate whether the final sound is velar or apical. *co,fin* and *coughing*, *coming* and *cumin*, *heron* and *herring*.

The Irish Spelling Book (anonymous 1740) includes the following statement regarding /ng/.

"NG together, and belonging to one and the same Syllable have a particular Sound, and different from N and G when parted, and belonging to several Syllables, as the sound N in Sin and thin differ much from that of N in sing and thing." (pg. 36)

The author goes on to state that

"This difference is visible even in the same Word if differently spell'd or divided, as in: Lon-ger Long-er, Stron-ger Strong-er", (p. 36).

Yet this discussion of variation between internal syllable boundaries is never extended to include variation in final position.

The presence of occasional spellings of *-ing* as <in> coupled with the lack of prescriptive statements against the use of apical N, are consistent with the view that any variation present had not evolved to the point where one of the variants had become stereotyped. The earliest instance of a prescriptive judgement passed on apical N which I have been able to locate (apart from Wlyd's citation of Walker) is the following letter sent to *Punch* (1902).

"Sir, I trust that the whole Constitutional Party, whether liberal or Tories, will unite as one man in opposing an agitation opening a disloyal crusade against the Queen's English. Its commencement is clearly the thin end of the wedge, which, when driven home, will confound 'u' and 'w', singular and plural, and deprive present participles of their final 'g',

besides making the double negative compulsory—and that all in the sacred name of British liberty of speech. Absit omen, menacing as it appears to

Yours truly, Walker Deloime" (*Punch* 1902)

The author refers to the dropping of final <g> on present participles. His statement is consistent with the view that there was a verbal effect on this variable at the time he wrote this letter.

The author has cited several known stigmatized forms of English. In stereotyping, a number of stigmatized features are often found together, e.g. lexical items coupled with several dialectal phonological variants. The following examples taken from the novel *The Clockmaker: The Sayings and Doings of Sam Slick of Slickville* illustrate this. The novel is one of a series of humorous works by the nineteenth century New England writer, Richard Haliburton.

(8.1) No fear of that, says he, *larfin*, but he'll beat you easy, anyhow

(*The Clockmaker*, 1836 ed., p. 144)

(8.2) and *scratchin* his head like a feller who's lost his road.

(*The Clockmaker*, 1836 ed., p.145)

In these examples the absence of final <g> is also accompanied by a non-standard use of /r/, in the words *larfin* and *feller*. Although other dialectal features are associated with the absence of final <g>, the use of an apostrophe is not observed in these examples.

8.3 Appearance of the Apostrophe with -ing

Under the assumption that the use of the apostrophe with *-ing*, i.e. <in'> would be associated with vernacular speech, I looked for samples of literature which attempted to portray vernacular speech. This assumption is supported by the fact that I was unable to find any instances of the apostrophe with *-ing* in non-fiction, or personal letters and

diaries. I decided to examine samples of humorous fiction, on the assumption that in dialogue portraying characters of the lower classes, literary devices designed to portray non-standard speech might include the use of the apostrophe as well. If so, and if the use of the apostrophe was found to co-occur with other known stereotypes, such as the interchange of v and w (Dickens), this would provide evidence that *-ing* had risen to the level of conscious social evaluation.

The earliest instances of an apostrophe with *-ing*, i.e. <in'>, which I have been able to find do not occur before the nineteenth century. At least one novel (*The Clockmaker*, Haliburton, 1836) showed differences in the use of apostrophes between earlier and later editions. For this reason, it was important to locate the earliest editions of the fiction. I included the writings of Haliburton on the basis of accounts given by Alexander Ellis (1869–89) who described these novels of R.C. Haliburton as representative of New England speech in the early nineteenth century.

The edition of *The Clockmaker* from which (8.1) and (8.2) were taken is the 1836 edition. In an 1840 edition of *The Clockmaker* (3rd series) the dialogue shows almost 100% use of apostrophe in the dialogue. The words *everything* and *anything* are exceptions. There was one instance of <ing> that I found, *modes of trading*, p. 162. Yet the fifth edition of *The Clockmaker* (1940) shows considerable variation between the standard orthography and <in> without the apostrophe. In an 1853 edition of *Sam Slick's Wise Saws and Modern Instances*, the use of the apostrophe is apparently categorical in the dialogue. In a (1923) edition, every *-ing* which occurs in the dialogue (not in the narration) has dropped the <g> and uses an apostrophe. Compare the following pairs of examples between the (1836) and the (1923) editions of this work

(8.3) (a) "and which way may you be *traveling*? inquired my inquisitive companion. p. 14 (1836)

(b) "and which way may you be *travelin'?*", inquired my inquisitive companion. p. 16 (1923)

(8.4) (a) "I'll set it *a going* and put it to the right time." (1836)

(b) "I'll set it *a-goin'* and put it to the right time." (1923)

Having found such differences between different editions of the same work, even in cases where the editions were only separated by approximately twenty years, I looked for further evidence of such spelling variation.

I found such an instance in examples of nineteenth century burlesque Shakespearean drama. A facsimile reproduction of a burlesque of *Hamlet* (1812), shows rhymes between words ending in *in* and *ing*. No apostrophe is used, however.

(8.5) But whilst my needle I was *threading*,/
Lord Hamlet popped his head *in*!

(Ophelia, *Hamlet Travestie* (1812) p.74)

(8.6) You know you gave them, with words *bewitching*,
/Last week while I was frying in the *kitchen*.

(Ophelia *Hamlet Travestie* (1812) p. 78)

A later facsimile reproduction of a burlesque of *Macbeth* (1853) shows <ing> rhymed with <in>, this time spelled with an apostrophe.

(8.7) You will allow me to observe my *pippin*,/
You get its shelter and I get its *drippin'*.

(Macbeth, *Macbeth Travestie* (1853) p. 89)

The *Macbeth Travestie* still exhibits at least one instance in which the apostrophe is not present, but where <ing> is rhymed with <in>.

(8.8) His Highness cant be well – there's something *hitching*,/
And I must beg you all to "clear the *kitchen*."

(Lady Macbeth, *Macbeth Travestie* (1853) p. 92)

A slightly later Shakespearean burlesque, *Perdita* (1856) shows more use of the apostrophe. The only instance of apostrophe with <ing> in the *Macbeth Travestie* is shown in 8.7 above. There are at least two instances of the apostrophe with <ing> in *Perdita*, found within four pages of each other.

(8.9) Camillo's gone too, who should now be/
mixin' his Majesty's morning Bohea.

(*Perdita*, p.115)

(8.10) Scared by the storm they fled, such capers *cuttin'*,/
Each with its own particular leg of *mutton*.

(*Perdita*, p.119 Song)

Other works taken from the mid nineteenth century show variation between <ing>, <in> and <in'>. The results in Table 8.1 show figures for four separate works of vernacular verse from London. These works were selected on the basis that they represented editions from the nineteenth century, and because they represent attempts to portray lower class speech. The poems *Polly* and *The Idler* are taken from *The Dagonet Ballads* (London 1893), and *The Castor Songs* are published in London (1861). The poem *My Sally* appeared with the collection of *Dagonet Ballads*, without author or date given. (See Baumann 1902).

Table 8.1

Orthographic Variants for -ing in 19th Century London Vernacular Verse

	ing	in	in'
Polly (1893)	9	2	28
Castor Songs (1861)	2	0	5
The Idler (1893)	0	0	3
My Sally (n.d.)	3	0	8

The distribution of <in'> does not show sensitivity to the grammatical category of *-ing*. In this respect it is different than the distribution of final <e> that was shown for earlier centuries. The following examples are taken from the works cited in Table 8.1.

(8.11) For his *savins* is gone in a minit, his food and his clothes and his rent.

(Polly, *The Dagonet Ballads*, p. 91, Baumann, 1902)

(8.12) I passed the poor critterr *a-panting*, and *hearing* Kit's curses and blows.

(Polly, *The Dagonet Ballads*, p. 91, Baumann, 1902)

(8.13) *Leaving* you 'is little donkey shay

(Wot Cher, *The Castor Songs*, p. 94, Baumann, 1902)

(8.14) Every *evenin'* on the stroke of five

(Wot Cher, *The Castor Songs*, p. 95, Baumann, 1902)

Another example of lower class dialogue taken from *London* (1867) shows variable spelling for words in *-ing*, and shows weak evidence of a grammatical effect, chi square = 5.5, although the cell for verbal *-ing* contains less than 5 tokens. (Note: chi square was computed without including the spelling variant <in> without the apostrophe.)

Table 8.2
Orthographic Variants in Mr. Sprouts His Opinions

	nominal		verbal	
	%	N	%	N
ing	20	8	5	3
in	7.5	3	3.3	2
in'	72.5	29	91.7	55
	100	40	100	60

The data shown in Table 8.2 are taken from the selection *A Night in Belgrave Square*, (Richard Whitely 1867). There are instances of hypercorrection in this writing, e.g. *kitching* for *kitchen*. The spellings *farden* (p. 3) and *pudden* (P. 2) occurred for *farthing* and *pudding*.

Examples (8.15) and (8.16) illustrate the general inclusion of a number of devices to characterize lower class London dialect.

(8.15) 'Well' ses I, *liftin'* o' my glass up, "here's God bless us all, them as is *enjoyin'* o'theirselves, and them as aint."

(Mr. Sprout, p. 2)

(8.16) afore I could fetch my breath, as the *saying* is.

(Mr. Sprout, p.3)

Another example in which the grammatical effect is very weakly manifested by patterns in the orthographic variation between *-ing* and *-in'* can be seen in at least one work of Charles Dickens, *Pickwick Papers*. Table 8.3 shows the distribution of *-ing* and *-in'* in the dialogue of Sam Weller, the servant to Mr. Pickwick. Mr. Pickwick's speech contains 100% *-ing*. The data shown in Table 8.3 are taken from the 1837 edition.

Table 8.3

Spelling Variants in Pickwick Papers
(1837 edition)

	nominal	verbal	
ing	9	13	
in'	17	7	chi sq. = 4.14 Not sig. <.01

(tokens taken from Chapters 13, 26
pages 120–133, 158–172)

Examples of stereotyped language carried to the extreme can be found in the dialogue of writing exemplified in the humorous series of novels by Arthur Sketchley, a series about a lower class woman of London, a Mrs. Brown. In three of these works, *Mrs. Brown in the Highlands*, *Mrs. Brown in America*, and *Mrs. Brown on The Battle of Dorking*, every instance of a word ending in *-ing* occurs as *-in'*. The one exception to this is the compound *nothing* which occurs invariantly as *nothink*. (1)

Other characteristics associated with lower class London dialect occur as well, including *w* for *v*, loss of initial *h* and hypercorrection of initial *h*. Examples (8.17) – (8.18) illustrate these features.

(8.17) Not as she can 'elp it thro' not 'avin' made 'erself, as the *sayin'* is.

(Mrs. Brown in the Highlands, p. 20)

(8.18) as they will 'ave the werry best of *heverythink*.

(Mrs. Brown on the Battle of Dorking, p. 4)

(8.19) and if the feller didn't take and charge me pretty nigh ten *shillin's*.

(Mrs. Brown in America, p. 26)

The following short passage taken from the beginning *Mrs. Brown in America* captures the feel of all this writing. There are numerous instances of hypercorrection of *-ing*, illustrated in the passage below by *Captin*.

"What!" I says to Brown, "go off to 'Merryker the same as that fellow Manders, in the mididie of the night, in aebt down to the milkman, as were over three pounds, and him with a sick wife and seven hinfants; as is a country I don't 'old with, where they're all a-runnin' about in nothink but beads and a few feathers as ain't common decent; a-yellin' of their war 'oops, and flourishin' about their Tommy 'awks, as is certain death, as I well remembers that pictur' of one myself, as did used to 'ang over the dinin'-room mantelpiece in my fust place, a-settin' on his 'aunches a-watchin' the dyin' agonies of General Wolfe, no doubt a-waitin' to dewour 'im afc-e the breath were out of 'is body, like a ragin' wultur', and a savage beast as killed Captin Cook when 'is back were turned as is a cowardly act, and would have done for Robi'son Crusoe, all but for Friday, but what can you expect from a uninabited island?"

(Mrs. Brown in American 1870, p. 1)

This passage shows the nearly categorical use of a number of stigmatized linguistic forms. The overkill of these literary devices may be viewed as the imperfect knowledge of the authors of the dialect they are attempting to depict.

In the effort to examine materials outside of London, I located a collection of stories which were told to and written down by J.T. Tregellas, and published as *Cornish Tales in Prose and Verse* (1865). These stories are taken from conversations with Cornish coal miners. Again, the author's depiction of the dialect does not show a distribution of the apostrophe which conforms to a grammatical effect.

Tables 8.3 shows the percentages of *-in'* according to the nominal and verbal categories in two of these prose selections. These figures are taken only from the dialogue of the miners, and do not include the narration in standard English.

Table 8.4

**Orthographic Variants in Two Cornish Miner Dialogues
Tom Tremuan and Tom Thomas and Bill Bilkes (1865)**

	nominal	verbal	
ing	11	14	chi square = .055 Not significant
in'	36	51	

The examples below indicate no sensitivity to the nominal or verbal status of the word occurring with *-ing*.

- (8.20) I s'poase he's lively and laazy, and baisty and proud, 'coording to who he as *goin'* to frighten.

(Tom Tremuan, p. 11)

- (8.21) ,caase he thoft that I wor *cuttln* of it up, but I knawed the *mainin'* of the word,

(Tom Tremuan, p.13)

- (8.22) he beganened for to talk so fine as if he'd ben *larnin' nothen* but gographey oall hes life.

(Dialogue of Two Cornish Miners, p. 20)

- (8.23) Well I dooant see a bit of sense in *cutting* of it up nor yet in *snogerin'*, caase we caant maake ourselves a bit better by it,

(Dialogue of Two Cornish Miners, p.21)

In (8.20) the preposition (which I counted as verbal) deletes the initial consonant, but leaves *-ing* intact. In (8.21) both the progressive *cuttln* and the derived noun *meaning* have dropped the *g*. Similarly in (8.23), one instance of the gerund retains the *g* while the other does not. (8.22) shows *nothen* as another variant spelling, without an apostrophe.

(It will be seen that these nominal compounds have been characterized in other ways as well).

Examples (8.20) – (8.23) illustrate the presence of numerous other devices to characterize regional dialect, apart from *g dropping*.

These data do not show the presence of a grammatical effect. This is in contrast to both the striking effect shown in the historical data from early modern English, manifested in the variation of final <e>, as well as in the phonological correlation of N with verbal categories and G with nominal categories shown for the synchronic corpus.

One interpretation of this lack of a grammatical effect in the fictional writings is that these writers do not share the same competence with the speakers they are attempting to portray in their writing. The presence of an apostrophe seems to indicate a conscious effort to show the apical variant. Incomplete or imperfect knowledge of another dialect might succeed in only partially portraying that dialect.

In contrast to these illustrations of stereotyping of (ING), a nineteenth century text published in Leeds, *The Bairnsie Books' Annual, A Pogmoor Almanack* (1852), shows invariant use of *in* without the use of an apostrophe. The exceptions to this spelling include essentially only proper names; *Basingly Hall* (p. 15), *Bridlington* (p.15), *Birmingham* (p.15), *North Riding* (p.32), *Nottingham* (p.36), and *Mr. Stirling Crawford* (p.30). In the last example there is one instance without the final *g*, *at Sterlin Crawford's* (p.30). The other instance of final *g* was found with the nominal compound *ivverthing* (everything), (p.39).

There were no instances of hypercorrection in this work, such as *Captin* or *kitchin*. Much of the writing is intended to be humorous. Examples (8.24) and (8.25) illustrate the presence of both the apostrophe in other contexts, as well as various spellings to represent dialect features.

- (8.24) an off shoo cut back agean intut kitchin, to butter sum muffins, wal t' cumpany it room wor homest kill'd we *laffin*.

'and off she went back again into the kitchen, to butter some muffins, while the company in the room was almost killed with laughing.'

(Pogmoor Oimanack, p. 32)

- (8.25) an all at wunce, an whether it wor at she thowt she wor *sittin* in a chair agean t'wall, ah doant naw, but *e leinin* back she toppaid reight over, ant cups and saucers flew noabody naws where,"

'and all at once, and whether it was that she thought she was sitting in a chair against the wall, I don't know, but a-leaning back she toppled right over, and cups and saucers flew nobody knows where". (i.e. all over the place)

(ibid. p.50, 'Molly Moffindoa's Letter to the Queen')

This work illustrates some presence of a grammatical effect manifested in the presence of final *g* on place names and proper names, as well as the compound *everything*. The compound *nothing* is spelled <nothin>. The absence of hypercorrection as well as the absence of the apostrophe on the *-ing* suffix suggest that this variable is not being characterized as a stereotype. In fact, it exhibits a lower profile as a dialect feature than other traits, such as the numerous non-standard contractions, *intut* (into the), *it* (in the), and consonant cluster simplifications, e.g. *agean* (against). Such spellings are more visible to the reader than the spelling of *-ing* without final *g* and no apostrophe.

The speakers from Leeds discussed in Chapter Four showed patterns of (ING) variation similar to the other speakers north of the 1450 demarcation. The dialect portrayed in the work above appears to represent northern speech (possibly with Irish influence) and it would not be surprising that (ING) is not portrayed as the salient stereotype it appears as for example, in the portrayal of lower class London speech of this same era.

The use of the apostrophe in writing is important as an indicator of the social significance of /In/, because it requires an awareness on the author's part of a clearly discerned variant of (ING). All the evidence I have been able to find supports the view that the apostrophe was first used with *-ing* during the mid nineteenth century.

The observed distribution of apostrophes with <ing> in nineteenth century dialogue stands in contrast to the distributional facts of final <e> shown in Chapter Six for the fifteenth through seventeenth centuries. There a grammatical effect was observed. There is no reason to assume that final <e> represented a device to indicate non-standard speech. Evidence showed that it represented the remnant case marking of Old English prior to the twelfth century. The differences between the two spelling forms, final <e> and <in'> with respect to the grammatical effect are in line with what has been assumed in this chapter and the preceding one; the presence of salient social evaluation need not coincide with patterns of variation which are founded in historical changes affecting the morphology of the language.

8.4 Intuitions and the Grammatical Conditioning on (ING)

The observed lack of a grammatical effect with the presence of an apostrophe in fictional writing raises the issue of whether standard language speakers (high G speakers) exhibit knowledge of the grammatical effect on (ING). In order to investigate this hypothesis I designed an experiment to test speakers' passive knowledge of the variation. My objective was to see whether high G speakers would show an awareness of the grammatical conditioning on (ING).

In this experiment native speakers of English were asked to read a short narrative passage containing instances of words with the (ING) suffix. (see Appendix B for the actual texts used in the experiment) They were asked to read the passage through once, then go back and change a subset of these tokens from the standard orthography of <ing> to <in'>. The instructions defined the task as *dropping the gs*. (2)

Because subjects were asked to make the passage achieve a more colloquial style through the substitution of <in'> for <ing>, it was important to make the initial reading passage sound natural to the subjects. Two reading passages were composed, very close to one another, but one of them contained several lexical items characteristic of British speech, and the other contained the American counterparts. (See Appendix B). In the American version, the subjects were asked to edit 6 of 19 (ING) tokens and in the British version, 7 of 21 tokens. The tokens of (ING) were identical for both versions; the two additional tokens in the British version were both verbal. (3)

Subjects were given adhesive-backed dot-shaped labels with <in'> typed on one side. This made editing a simple matter of sticking a dot over the suffix to be edited. The (ING) tokens included elements representing both verbal and nominal categories.

Twenty-five subjects were used in this study, none of whom were aware of the object of the experiment which was to test for a grammatical effect in the editing process. The speakers represent a number of English dialect regions including Arkansas (2), Savannah, Georgia (1), Philadelphia (4), New Jersey (3), Long Island (1), New York City (1), Massachusetts (1), Ohio (1), Midwest and South (1), Illinois (2), Berkeley, California (2), Pasadena (1), London (1), Lancashire (1), Yorkshire (1), Scotland (1) and Ontario (1).

Table 8.4 shows the percentage of edited tokens which were verbal and the percentage which were nominal.

Table 8.5
 Percentage of Nominal and Verbal Categories Edited as In'
 from Experiment 1

	nominal	verbal	
%	19	81	100
N	21	128	149

15 speakers

Table 8.4 shows a marked favoring in the editing of verbal categories. The total 149 indicates the number of tokens which were edited in the experiment, (6 x 21 for the American text and 7 x 4 for the British text). Thus the presence of a grammatical effect is quite evident.

The passages for editing did not contain clear cases of stereotyped English, e.g. they did not contain phrases such as *I ain't going*, or lexical items such as *a-going*. If they had, I would predict that most high G speakers (probably the majority of the editors) would have selected such items to be edited.

A second experiment I conducted supports this hypothesis. The second experiment was another editing task. Subjects were asked to read a page long text containing 20 words ending in *-ing*. (4) Ten of these tokens were nominal uses of *-ing* and ten were verbal. In this experiment, however, there were also a number of non-standard spelling forms and grammatical constructions, e.g. double negation, the use of *ain't*, the name *Kentucky* spelled *Kaintucky*. These non-standard forms were placed in the sentences containing the nominal *-ing* forms. The hypothesis was that the inclusion of these non-standard forms would shift the editing towards the nominal *-ing* forms. Subjects were asked to edit 7 of the 20 forms in *-ing* as *in'*. Table 8.5 gives the results for 15 subjects. (See Appendix B for a sample of the actual text used and the instructions of this experiment). (5)

Table 8.6

Results of Editing Experiment 2
Percentage of Edited Tokens which are Nominal or Verbal -ing

	nominal	verbal	
%	65.7	34.3	100
N	69	36	105

total # of nominal tokens = 150

total # of verbal tokens = 150

of subject = 15

In contrast to the first experiment in which 81% of the edited *-ing* tokens were in verbal categories, the results of Experiment 2 show only 34.4% of the edited *-ing* tokens are verbal. The marked shift towards the editing of nominal *-ing* tokens is interpreted as the effect of the presence of non-standard (in some instances stereotyped) material. To the extent that *-in'* is perceived as non-standard, this shift in editing can be seen as the perception of the appropriateness of the co-occurrence between *-in'* and other non-standard linguistic forms.

In modern English, children who grow up in speech communities with a mixture of G and N, are exposed to the probabilistic performance of the speakers around them. Their own performance is undoubtedly reinforced by their peers, (Labov 1972b). In contrast, the children of high G speakers may not be exposed to this probabilistic effect. Chapter Four presented data which showed that, among working class British speakers, there is evidence in apparent time that the grammatical effect has been transmitted from the older generation to the younger.

Table 8.7
Velar Application for Youngest British Speakers
according to Grammatical Category and Sex

	p	%	N	
any/every/some/nothing	.96	93	45	
proper names	.74	50	8	
derived nominals				
adjunct modifiers (+ger)	.56	39	44	
monomorphemic nouns	.36	21	14	
gerunds				
Acc-ing				
NP Complements	.33	19	124	
prepositions	.31	17	6	
non-finite participles	.28	16	132	log likelihood = -360.0901
finite participles				chi sq./cell = .36
predicate adjectives				# of cells = 16
non-adjunct modifiers (+part)				
adjunct modifiers (+part)	.21	12	544	
(under 17) boys	.40	12	494	
girls	.60	27	423	
input prob.	.33	19	917	

A follow-up study of these speech communities in a decade or two would be necessary in order to establish whether this effect has been preserved stably in real time. My prediction would be that such an effect will be found, partly because of the apparent grammatical effect exhibited in the historical data as shown in the presence or absence of final <e>, and partly because data on (ING) collected over the last two decades has shown this variable to be quite stable in other respects, i.e its social and stylistic effects.

8.5 Functionalism and Social Evaluation

From the evidence presented in Section 8.3 it appears that Wyld was reporting the presence of social stereotyping of the apical N form of (ING). This strongly suggests that variation between N and G had occurred for some time below the level of consciousness.

Much work remains to be done on answering the question *why* certain linguistic forms take on evaluative meaning and others don't. Yet once they have taken on such meaning, this new significance can exhibit patterns of its own, which need not correspond to patterns established for the linguistic form at the non-evaluative level.

In the case of (ING) it has been shown in this dissertation how the morphological history can shed light on patterns of observed variation today between the apical and velar variants. Apart from this effect on variation, the social significance of the variable cannot be disputed. In English speech communities world wide it has shown sensitivity to style, gender and social class. From all the historical evidence examined in this study, it is clear that the social evaluation followed the morphological partial merger of *-Ind* and *-Ing*. The apostrophe, which is taken to be evidence of a conscious degree of social evaluation, appears to occur first about the time Wyld reports that the apical variant is said to become stigmatized, (Wyld 1936).

Evidence that (ING) has evolved social meaning to the extent that it is a *marker* and not just an *indicator* (Labov 1972a), comes from the diverse reports of stylistic effect on the variation, beyond reports of social class stratification, (Trudgill 1972), (Woods 1979), (Wald and Shopen 1981).

It is more difficult to establish to what extent (ING) was or is a *stereotype*. (Labov 1972a). Although the concept of *stereotype* is not a strictly technical one, Labov has viewed linguistic stereotypes as forms which have a clearly negative value, and which are characterized as fixed expressions. Stereotypes are taken to be *social facts*, e.g. the social roles of *femme fatale* or *loud mouth* are stereotypes, designated by terms which

members of a community mutually recognize. Similarly, linguistic stereotypes may be characterized as fixed expressions; Labov cites the stereotyping of Brooklynese by the expression *dese, dems and dose*, and *toity-toid street*, (Labov 1972a, p. 314).

In this respect (ING) is not truly parallel, since there are no fixed expressions, but only the general concept of *dropping your gs*. In writing, it's possible that the apostrophe serves the function of a fixed form. It is less clear, however, that the type of negative evaluation associated with stereotypes of Brooklynese is equally strong with the N variant of (ING). There is some evidence from advertisements that the apical variant is associated with friendliness and hominess, although I would not place too much emphasis on the significance of these as reflections of speech community attitudes. Two examples from recent television commercials (1983–84) include *Pillsbury Pipin' Hot Bread* and the McDonald's jingle *nothin' nothin' like an Egg McMuffin*.

The question is: at what point does social evaluation become sufficiently salient to disrupt the grammatical effect on the variable. The existence of sufficiently strong negative evaluation in a given social class may prevent future generations of speakers from acquiring variation which is grammatically conditioned. This would happen in the instance where one variant, conditioned by the historical morphological situation, is perceived negatively, for whatever reason. As it becomes a form to be avoided, there is less and less information available to subsequent language learners from linguistic performance about the original, grammatically-conditioned variation. In this way, high G speakers could fail to accurately describe the conditions under which *gs are dropped* (described in terms of this social concept) in communities or social groups where such negative evaluation never took place. The portrayal of lower class speech in the nineteenth century by upper middle class writers could be one example of this.

An alternate hypothesis might be that speakers evaluate the apical variant negatively, subsequent to their losing any grammatical conditioning on the variation. In other words, does negative evaluation precede the loss of grammatical conditioning, or does it follow it? Future research may be able to resolve this question.

One interesting case is that of very high N speakers, as illustrated by the American southern speakers used in this study, (Chapter Four, Section 4.7.1). In this instance, the grammatical effect is not present as it is for the intermediate G/N speakers, but neither is N stereotyped. Although the American southern speakers show high N for several nominal categories, they never show high G for verbal ones.

At present I do not have an explanation for why there is this second trend for (ING) away from the historical motivations for its original variation. In the case of high N speakers, an appeal to the influence of the standard language and spelling cannot be made, since the direction of the variation is opposite to what would be expected. Only further investigation into the history of southern American speech and its norms can definitively answer this question. (8)

A functionalist model which predicts linguistic change (or resistance to it) on the basis of efficiency in preserving referential and grammatical information, would fail to predict the effects that social evaluation may exert on structural systems. Why certain variables become salient as targets of overt social evaluation remains to be answered, but I have tried to show *how* such a process can exert an effect on linguistic variation.

The hypothesis that the speech of the working class is the site to look for continuity is corroborated by the findings of this dissertation to the extent that the grammatical effect has been established largely on the basis of working class data. Although some middle and upper middle class speakers exhibited knowledge of the grammatical effect in an experimental setting, several members of upper middle class background did not. A systematic study of British middle and upper class speech would provide stronger evidence for or against this hypothesis.

The expressive value which linguistic forms may acquire can be seen to influence their future place within the linguistic system. In this sense, processes of evaluation may not always be in accord with functional principles. The case of (ING) illustrates this divergence by showing on the one hand, that in some respects the phonological variation

can be viewed as preserving a morphological contrast, but that such a functional contrast on the other hand, can be overridden by external social conditioning.

Footnotes

1. The word *Dorking* on the frontispiece is spelled <Dorking>, yet consistently referred to as *Dorkin'* throughout the novel.
2. I am indebted to William Labov for providing the initial idea for this experiment.
3. The two versions are shown in Appendix B. I altered several expressions in the British version, with the advice of a native British English speaker, Elizabeth Campion, in order to make the passage sound as natural as possible to the British ear. One American took the British test and one British speaker took the American test, as a point of comparison. There were not noticeable differences between the test subjects and their respective controlled counterparts. In fact, differences between American and British subjects with respect to the grammatical effect of (ING) were not noticeable.
4. The text for this experiment was taken from selected passages of *The Diary of a 49er*. (See Appendix F for complete reference). I chose these passages in order to provide a text that would not sound contrived with the addition of non-standard linguistic forms. The original text is modified in Experiment 2 only to provide an equal representation of verbal and nominal *-ing* categories, and to include non-standard forms where needed.
5. The 15 subjects used for the first and second editing experiments were not identical sets. It was not possible to administer the second experiment to all subjects who participated in the first experiment. Five subjects were the same for both experiments, and all five showed a shift towards editing the nominal *-ing* tokens in the second experiment.
6. One hypothesis is related to the fact that the southern United States was settled by Scots, who presumably would have shown a higher N application in their speech than the southern English, (Feagin 1979). Given this, perhaps apical N then continued to encroach on the nominal categories, although the specific mechanisms here are not clear at the present time. (See Marckwardt 1948).

9.0 Conclusions

9.1 General Summary

This dissertation has attempted to resolve some of the questions surrounding the origin of the variable (ING). Apart from the widespread conditions affecting this variable, an independent grammatical effect was observed. This grammatical effect is significant in two ways. First, the effect has been shown to reflect an historical process, a partially completed merger between two originally distinct morphemes in English. Second, the effect has pointed to a synchronic description which does not assume that grammatical categories are divided by discretely defined sets of syntactic features, but instead are ranked along a continuum.

The continuity with the historical past of the two morphemes {ing} and {ind} was established on the basis of the observed correspondence in the modern British data to the isogloss that was established by the Middle English dialect study of Moore, Meech and Whitehall (1935). The Middle English survey determined that c.1450 the replacement of the present participle suffix *-ind* with *-ing* had occurred in the south of England. (see Map 4.1). The modern data show that the urban centers which show an overall probability of velar application less than .5 fall roughly outside of the 1450 isogloss, i.e. to the north and the periphery of it. In contrast, the urban centers which show a probability of velar application greater than .5 lie roughly within it.

This difference in the modern data, which was found to reside almost entirely in the verbal categories, is interpreted as evidence that the spelling change shown c.1450 was in fact representative of a difference in pronunciation. Based on spelling evidence, as well as experimental results on perception and acoustic properties of high front vowels, I have argued that the resulting identity of form between participle and verbal noun in the south of England was influenced by the perceived similarity in the vowel preceding the nasals. An

apical nasal with a preceding high tense front vowel would tend to be heard as a velar nasal, resulting in the substitution of *-ind* and *-ing*.

In the north of England, the vowel preceding the nasal stop of the present participle was probably not a high front vowel, (the spelling form was <and>), and there would not be acoustic grounds for a misperception of the participle's ending with that of the verbal noun. Eventually the north replaces <and> with <ing>, but this is interpreted more as a result of the standardization of written English, than a reflection of phonological facts.

The arguments given above are not in accord with the views of scholars who have assumed that the apical pronunciation of *-ing* was categorical in late Middle and early modern English, and the velar pronunciation only appeared first in the 19th century as a result of the influence of spelling. In contrast, I have argued that the spelling, to a certain extent was influenced by pronunciation.

The presence of final <e> in the earlier historical data was shown to be a more revealing variable for the diachronic texts, than the presence or absence of final <g>. Final <e>, subsequent to the replacement of *-ind* with *-ing*, showed a distribution which favored nominal categories over verbal ones. Compiled data from Irwin (1967) as well as data for the present study showed this to be the case. This observed grammatical effect was found even after final <e> had ceased to function as a case marker. It was suggested that the presence of final <e> was the orthographic indication of a velar nasal. This is even more likely to be the case if the presence of <e> can be taken as an indicator of a final release, i.e. of [g].

These related set of facts establish a continuity between the past and the present. In this respect I have attempted to locate the linguistic changes related to (ING) within a temporal and spatial continuum.

Apart from these facts, the question remained as to the status of (ING) within modern English, since it cannot be assumed that speakers internalize the history of linguistic forms, expressed as historical relationships. Historically motivated relationships are acquired by speakers in a non-historical context, i.e. the here and now. The

representation of (ING) morphology in modern English has been viewed here as the question of whether or not to represent this morphology by discrete or non-discrete elements. The use of the variable rule analysis allowed a comparison of discrete versus nondiscrete models. A model which follows essentially the continuum postulated independently by Ross (1973) was shown to fit the observed distributions better than a discrete model.

Further support for a dynamic and continuous model of the morphology was found in the result of a survey of native speakers. This survey revealed differences among native learners of English with respect to the acceptability of plural forms in *-s* with a number of concrete derived nouns in *-ing*, as well as the existence of corresponding verbs and zero noun forms.

The grammatical effect was also observed in the passive knowledge of standard speakers. In an experiment which forced subjects to choose among a group of *-ing* forms to be realized in a text as *<in'>*, the subjects overwhelmingly chose verbal categories rather than nominal ones.

The presence of an apostrophe in nineteenth century written dialogue, i.e. *in'* does not reveal a grammatical effect. This was interpreted as the incomplete knowledge on the part of authors of standard English of the non-standard dialects they were attempting to portray in the dialogue of their fictional works.

In fictional dialogue from the early nineteenth century, prior to the appearance of the apostrophe, there is some observed variation between the spelling forms *<ing>* and *<in>*. In these cases, without the apostrophe, the use of *<in>* shows a distribution which favors the verbal categories to some extent. The difference between the spelling variants *<in>* and *<in'>*, with respect to the grammatical effect, remains somewhat of a mystery. Further research into historical fictional texts of the nineteenth century may reveal more, but at present I would suggest that this difference reflects a difference in the authors' awareness of (ING).

With the use of an apostrophe, (ING) seems to function as a stereotyped element of language. It is on par with literary devices such as *toity-toid streat* and *dose guys* as characteristics of non-standard dialects. In contrast, the absence of an apostrophe, i.e. <in>, does not apparently function on such a level. This seemed particularly the case in the excerpts from the Leeds *Almanack*, in which a number of apparent literary devices to portray non-standard language were used. This included the use of the apostrophe for a number of elements. In this case, there was some observance of a grammatical effect, since proper names and place names were spelled with <ing>, whereas the participles were spelled <in>.

The overall grammatical results shown for (ING) are consistent with the findings of other quantitative work in that both have established the existence of variability in grammar, at the levels of syntactic and morphological structure, (Guy 1980), (Labov 1980), (Sankoff 1980), (Tarallo 1983).

This study did not address the issue of how (ING) is acquired by first language learners. The non-discrete nature of the categories which occur with (ING) would appear to support the view, however, that language learners have the ability to maintain distinctions along a continuum. The data presented in this study point to the need for further research into the relationship between language change and language acquisition, (Guy 1980).

These results may be viewed from the perspective set out at the beginning of this dissertation on five issues related to language change articulated by Weinreich, Labov and Herzog (1968).

The transition problem has been addressed in terms of the temporally situated syncretisms between the present participle and the verbal noun, observed during late Middle and early modern English. The evidence discussed in Chapter Seven showed that the continuity with the past is not a simple one, but one complicated further by the appearance of new grammatical categories in English, e.g. the verbal gerunds and the periphrastic tenses with *-ing*.

Yet, despite these changes, the phonological variants have aligned with the new categories along the same lines of the original ones, i.e. apical N is favored with the more recent categories, which are verbal.

The results of the experiment on the perception of nasals following high front vowels, suggest the possibility that such perceptual mechanisms could play some role in determining the direction of change. As such, these results have some relevance to the question of constraints on linguistic change.

The issue of where the linguistic change affecting *-ing* was embedded has been answered by the observed difference between the northern and southern regions of England with respect to applications of (ING) in the verbal categories. Further studies on this topic might succeed in providing an even more refined geographic perspective.

The issue of what causes a linguistic change to occur where and when it did, the actuation problem, was only briefly considered here. This remains the most difficult of questions. What I have suggested, however, is that the replacement of *-ind* with *-ing* was possibly affected by more widespread changes affecting the English language throughout the Middle English period. The loss of the case system involved massive restructuring of the nominal and verbal paradigms of Old English. Most of the losses involved loss of final nasals with unstressed preceding vowels.

The evaluation problem has been addressed in terms of the use of the apostrophe with *-ing*. The presence of an apostrophe in writing, provides evidence that *-ing* has attained a measure of overt expressive value, probably negative. The first clear historical evidence I have been able to find showing the social evaluation of *-ing* seems to support Wyld's view that /ln/ became stigmatized in the early nineteenth century.

9.2 Introspection versus the Quantitative Paradigm

It has frequently been stated by proponents of transformational generative grammar that linguistics must define a theory, and then evaluate linguistic data in terms of

how well the theory can account for such data, i.e. evaluate the *goodness of fit*, (Chomsky 1980), (Jackendoff 1977).

This line of reasoning has led many to take as their theory a set of very interesting, but not well-understood assumptions (1) about the nature of the human language faculty, e.g. the assumption that the language faculty is organized into modular components which separate logical form, syntactic structure, and phonological representation, (Chomsky 1980), (Fodor 1978), (Selkirk 1982). Many of the views expressed in this framework have been reached on the basis of data derived solely from the process of introspection.

My own reservations to this approach are not with respect to the effort to formalize sets of linguistic facts, but with respect to the danger of relying too heavily on deductive reasoning at the expense of extensive and systematic observation. A number of studies have shown that linguistic data show significantly greater inconsistency and irregularity when the speakers are more conscious of their language. In contrast, more spontaneous speech exhibits greater regularity, (Labov 1983).

In questioning the validity of the approach described above, I am not rejecting the goal of moving towards abstraction and formalization in linguistic description. Labov (1980) has cautioned against a complete rejection of discrete analysis in linguistics, pointing out that the accomplishments of variation theory rest in part on the accomplishments of the discrete, structural work that preceded it.

I am rejecting the assumption that there is an empirical and conceptual necessity for excluding social factors in building linguistic models, models either of synchronic grammars, as well as models of linguistic change. Arbitrarily opposing innate biological explanations to external social ones, seems of little value, given our present understanding of the human mind, or of our linguistic faculty.

Deductions based on relations defined for *formal representations* of linguistic forms (2) should not be mistaken for *empirical models* which make reference to linguistic forms. A representation of linguistic competence is *not* necessarily a model of linguistic competence.

A blueprint is a type of representation, but without knowledge of stress capabilities of the building materials, such a representation does not guarantee we can build a real structure or even be said to possess knowledge of the structure we desire to build. A model of real structures draws on facts wholly outside the representational blueprint, facts which the blueprint alone could never predict, yet which, together with the blueprint do provide a model of the structure in question. If one argues that information about stress capabilities could be included in the representational blueprint, my reply is yes, but only *after* discoveries had been made about the building materials, and these could not be deduced from other properties described within the blueprint. Nevertheless they are an important dimension of the structure which the blueprint by itself only partially represents.

The empirical study of language may eventually lead to a demarcation between biologically given and socially acquired properties of language, but linguistic facts should not be sorted along such a demarcation a priori. It may be that our current concept of what is social and what is biological may undergo revision, given our limited knowledge today of both these concepts as they relate to language.

9.3 Topics for Further Exploration

The data which provided the evidence for the major findings in this dissertation are based on urban data from Britain. An important supplement to these data would be to analyze (ING) from rural communities, showing a comparable distribution across geographical regions. On the assumption that rural communities tend to maintain older forms, I would predict that both a strong grammatical effect would be present, and also a strong geographical difference between rural regions falling inside and outside of the 1450 isogloss.

A number of experimental results were reported in this dissertation. The aim of these was to approach the conditions of variation from a number of perspectives, trying to conform to the principle proposed by Labov (1982) that

'The value of data for confirming a theory is inversely related to the similarity in the sources of error in the confirming work and the work that is being confirmed'

(Labov 1982, p. 179)

The sources of error in experimentation are different from the sources of error in transcribing tape recorded speech. The results of the editing experiment, which strongly confirmed the results from the spoken data in terms of the grammatical effect, are valuable because they were derived under a different set of conditions.

Labov has also suggested that the value of data is inversely related to the degree of control over the data by the investigator. It has not been determined to what degree linguists maintain control over their intuitions about grammaticality. For this reason, basing research solely on such an uncontrolled source of data seems unwise. For this reason, also, it was necessary to determine to what extent phonetically-trained listeners converge on their ability to perceive apical and velar variants. The Reliability Test was designed to establish a measurement of control based on more than the judgements of a single investigator. The resulting percentage of agreement, 84%, was more valuable for this reason. It is to be hoped that future quantitative work in general will strive towards demonstrating the objectiveness of the criteria for coding the data, since the soundness of all quantitative results ultimately resides there.

There is room for further experimental procedures with respect to understanding the grammatical conditioning of (ING) as well as the degree of social stereotyping of this variable. At present I am working on one such experiment, whose results must appear at a later time.

The experiment is designed to probe more deeply into the grammatical distinctions native speakers are able to make with respect to the grammatical categories which occur with (ING). The experiment consists in showing subjects a series of cards, each card containing three sentences. The subject is asked to pick the two sentences which he or she finds most similar. This experiment is intended to test, e.g., whether

subjects associate Acc-ing constructions more closely with appositives or with verbal gerunds, and whether there is general agreement across subjects in regard to these intuitions.

In conclusion, this quantitative study of (ING) has tried to show both how the past can explain the present, and how the present can also explain the past. The quantitative paradigm receives further support from the findings of this study, which confirm the existence of structured heterogeneity of a linguistic element over time, in this case (ING).

Footnotes

1. The current interest in using computational models as models of natural language competence (and natural language processors) has appeal no doubt because the internal structures of computers and how they function are understood completely. Yet with the development of CAD/CAM VLSI (computer-assisted design/computer-assisted manufacturing of very large scale integration) processors, this understanding is reaching a limit, due to the enormous complexity of potential interactions between transistors on a silicon chip containing 500,000 such transistors. But even this limit is understood as being only a computational problem of speed; it would take too long (years maybe decades) for even the most powerful computers today, e.g. the Cray, to exhaustively determine the range of possible interactions between the transistors of such a chip. The problem is solvable but not cost effective. The significant point to be made about computers is this: all levels of computational representation, e.g. high level languages such as LISP, are ultimately reducible to low-level events in the hardware of the computer, and are completely deterministic at the discrete, non-analog level. (Non-deterministic events are errors).

With respect to human language processing and competence, we are not in a position to even know whether our linguistic ability is solvable by means similar to the method mentioned above. This is because our representations of abstract linguistic relationships, despite their formal guise, do not refer to anything nearly as concise or well understood as transistors, or logic gates. High level linguistic representations are not presently reducible to low level structures by any known bridge laws.

2. For an excellent discussion on these and related issues in the philosophy of science see Friedman (1981).

Appendix A: Reliability Test

The analysis of spoken data requires that some measure of control be established with respect to the reliability of the judgements of the data being coded. For this reason a reliability test for (ING) was conducted to measure the degree of agreement across speakers.

Ten listeners were used in this test, all of whom had previous training in phonetics. A sample of 20 examples were selected from the British and American tapes to measure the reliability across the ten listeners with respect to their ability to distinguish apical and ve:ar variants. The examples were recorded onto an Akai Cassette Recorder, from reel-to-reel tapes. Dolby noise reduction insured maximum clarity for the test.

The results of the test are given in Table A.1

Table A.1
Percentage of Agreement for Each of Twenty (ING) Tokens

Token #	%	Token #	%
1	100	11	80
2	65	12	85
3	75	13	100
4	80	14	75
5	100	15	85
6	70	16	100
7	100	17	95
8	65	18	75
9	65	19	100
10	70	20	90

N = 200
10 instances of each token

average percentage of agreement = 84%

The overall agreement is an acceptable 84%. My own judgements corresponded exactly to those of William Labov, one of the ten participants. This statistic is valuable, because it shows 100% agreement between the two listeners with the most familiarity with these data.

Reliability Test for (ING)

The following test is designed to measure the reliability of listeners' judgements of their perception of the English suffix (ING). Because the sentences you will be hearing are samples of natural, rapid speech (not samples produced under laboratory conditions), and also because the samples are taken from a variety of dialects, you may want to look over Form A (on the following page) before playing the cassette, in order to help your comprehension of these sentences. The words in boldface are the words you will be giving your judgements on. Remember that the spelling form is not an indicator of how the speakers in sentences 1–20 will actually be pronouncing (ING). When you have looked over sentences 1–20 on Form A, please begin the cassette.

Appendix B: Editing Experiment 1 for (ING)

SAMPLE FORM

No ____

Date __/__/__

Language Survey

Everyone knows that people sometimes speak more formally on some occasions than on others. When people are speaking more casually they often pronounce words differently than they do on more formal occasions. One example is known as *dropping your gs*. So for instance, people will say "I was workin' Saturday night" instead of "I was working Saturday night."

In this survey you are asked to read a short narrative and to drop some of the *gs* in it, so that it sounds more casual, more colloquial. There are nineteen words in this passage ending in *-ing*. Choose *six* to drop the *gs* from. You will be supplied with small labels to stick over the *ings* that you decide to change.

Name (optional) _____

Birthplace _____

Place(s) you grew up (until age 15) _____

Years of Education _____

Comments:

Fear of Flying AMERICAN VERSION

One time I was *flying* out to the West Coast when the plane got engine trouble. At first *everything* was normal, we took off as planned. I could see New York, the lights *shining* below us. We kept *gaining* altitude, but the seat belt sign stayed lit, and the stewardess told us to stay in our seats til we reached a safe, *cruising* altitude. I thought that was a funny thing to say. Then the pilot came on, all he said was, "Ladies and gentlemen, we've experienced hydraulic failure on the aircraft and we're *going* to have to make an emergency *landing*." That was a tense moment, the stewardess told one guy to sit down – I mean she yelled at him. She said there was no *smoking* and not to touch the overhead switches on the *ceiling* while the pilot dumped the fuel. He had to dump the fuel before we could land. I just sat there *feeling* like this could be it, *knowing* the girl *sitting* next to me is Italian and I can't even say a few last words to the girl *sitting* next to me. It took a long time, *dumping* the fuel. They don't just dump it, they do it slowly so the plane won't tip over. I really felt good when she told us that! We were way out over the water, pitch black, I couldn't see a thing. And all the time I'm *thinking*, "I don't wanna go down in this ocean". I mean I would have felt better if it was the Pacific, cause that's closer to home for me. Well finally we turned back towards New York, what a relief that was to see some lights again! Everybody relaxed a little, like the worst was already over. But nobody talked, just quiet. Finally we could feel the plane *going* down, I heard the *landing* gear drop. But the pilot never said another word to us. We hit the runway and everybody started *applauding*. But I looked out the window and saw flames *shooting* out the left engine right when we hit the ground. I watched them the whole way down the runway – it happened so fast – then it was over. The flames died when the plane stopped. They had a truck tow us off there, off the runway. I think the pilot knew what happened and he cut the engines as soon as he could. But can you believe it, I actually got on another plane that night and made it out to L.A.? I've flown since then, too, but even now I don't like *flying*.

BRITISH VERSION

Once in America I was *flying* from New York to California and the plane got engine trouble. At first *everything* seemed okay, we took off as planned. I could see New York, the lights *shining* below us. We kept *gaining* altitude, but the seat belt sign stayed lit, and the stewardess told us to stay in our seats til we reached a safe, *cruising* altitude. That was a funny thing to say now, wasn't it? Then the pilot came on, all he said was, "Ladies and gentlemen, we've developed hydraulic failure on the aircraft and we're *going* to have to make an emergency *landing*." That was a bad moment, the stewardess told one bloke to sit down, I mean she really meant business you know, and she said there was no *smoking* and not to touch the overhead switches on the *ceiling* while he dumped the fuel. She said it would be too much weight for the plane to land. I just sat there, *feeling* like this could be it, *knowing* the lass next to me is Italian and I can't even say a few last words to her, *sitting* there next to me. It took a long time, *dumping* the fuel. They can't do it all at once or the plane would flip over. There we were over the water, pitch black, couldn't see a thing. And all the time I'm *thinkin'*. "I can't go down in this ocean." At last we turned back for New York, I felt better just *seeing* the lights again. But no one talked, just quiet. Then we felt the plane *going* down, I could hear the *landing* gear. but the pilot never said a word. We hit the runway and they all started *applauding*, you know, we're safe and that. But I looked out the window and I saw flames *shooting* right out of the engine there, just *shooting* right out the engine! It happened so fast and it was over. The plane had stopped and flames were gone. They had us towed off the runway, and I could see all the trucks there and equipment. But can you believe it, I actually boarded another plane that night and made it to California! I've flown since, too, but even now I don't enjoy *flying* much.

Editing Experiment 2 (ING)

Everyone knows that people speak more casually on some occasions than on others. In casual speech pronunciation is different than in more careful speech styles. One difference is sometimes referred to as *dropping your gs*.

In this survey you are asked to read a page of text and drop the *gs* on a number of words. The passage consists of six paragraphs containing a total of 20 words which end in *-ing*. After reading the text through once, go back and edit (drop the *gs*) from 7 of the 20 words. You will be given small adhesive-backed labels to stick over the *ings* that you wish to edit. Use your intuitions in deciding which how to edit the passage.

Name _____

Birthplace _____

Date ____/____/____

Birthdate ____/____/____

Places you grew up until age 15:

Comments:

A scientist in Nevada has formed a company to get gold out of the rock. It may be all right but I don't know **nothing** about it. I hear the miners are skeptical and don't believe in no new-fangled process for **getting** gold out of rocks. They say a lot of merchants and lawyers put money down, and the scientist has raised about forty thousand dollars. He is **grading** off a site for his furnace on Deer Creek, opposite town, and is **burning** a kiln of charcoal for fuel.

Some of the married miners are **planning** to bring their wives out from the States. A lot says they can go to **farming** in the valleys, but with the mines worked out and miners gone, where would they have a market for what they raised?

Since Pard come to camp with me, we spend an hour or two every **evening** after supper out under a big sugar pine that grows in front of the cabin. We sit there **smoking** our pipes, but we don't say much. Except for the light in Platt's cabin, down the creek, we would think we were two castaways in a wilderness. It ain't hard to see why it drives so many of the boys to **drinking** or **carousing** around the saloons.

Yesterday there was a dog fight on the bridge and a lot of money bet on it. The **losing** dog was chewed up pretty bad. His owner was disgusted and swore he'd kill him. I bought the dog for two ounces. He couldn't walk so I had to carry him. My new boots hurt me like sin and by the time I was at the top of Sugar Loaf, I's in my **stocking** feet, **carrying** the dog and my boots. When I got to the cabin my new clothes were a sight, but the look in that dog's eye and the way he licked my hand was worth more than the gold I paid for him.

It looks like it'll be as wet a season as forty-nine. Flour is scarce and the storekeepers are **asking** thirty dollars for a hundred pound sack. Rattlesnake Dick, a sport and a desperado from Auburn, was chased out of town last week. He shot up a fandango house, held up a monte bank and abused old Stanton Buckney, **making** the old fellow go down on his knees and beg for his life. Buckney is a nice old fellow who prides himself on his Kaintucky **breeding**, and swears only blood will wipe out the insult. I guess he won't hunt Dick very far.

One of the miners is **working** a claim on Golpher Point just below Blue Tent, which he thinks is rich. He offered us a quarter interest, so we rode over to look at it, but decided not to. It ain't like no other **diggings** in this part of the country. There's no question that it's rich, but the men aren't **making** good wages on account of the difficulty of **separating** the dirt from the cobbles.

Appendix C

Experimental Procedure for Phonetics Experiment on the Perception of [n] and [ŋ] following Vowels in Stressed and Unstressed Syllables

Methods

The two experiments conducted for this dissertation did not use white noise with the stimuli, as reported by Zee (1983). The first experiment was designed to test listeners' ability to correctly identify [n] and [ŋ] in stressed monosyllables. The syllables were recorded on a Tandberg Cassette Recorder, Model CCR 350, by a trained phonetician (Franz Seitz) who placed each VC nonsense syllable in the context of a sentence.

Each sentence was of the form *please say VC for me*, where the VC stands for the actual values produced by the phonetician. Sixty sentences were recorded for this experiment, representing two instances of each possible syllable. The order in which they were read was randomized. There was approximately a 3-s pause between tokens. The speaker was instructed to maintain a level pitch for each VC syllable, and to minimize the audible release of the nasal consonants. Table 1 shows the 30 stimuli types for Experiment 1.

Table C.1

The 30 Syllable Types used as Stimuli in Experiment 1

in	In	eyn	ɛn	aen	ʌn	ʒn	un	Un	on	ɔn	an	awn	ayn	oyn
iŋ	Iŋ	eyŋ	ɛŋ	aəŋ	ʌŋ	ʒŋ	uŋ	Uŋ	oŋ	ɔŋ	aŋ	awŋ	ayŋ	oyŋ

The second experiment was designed to test listeners' ability to correctly identify final nasals in unstressed final syllables of two syllable English words. The procedure for recording the second experiment was similar to the first. The same phonetician produced these stimuli under the same recording conditions as the first experiment.

Here the stimuli did not occur in the context of a sentence; there was approximately a 3-s pause between each word. The speaker was asked to produce a consistent stress pattern for each token, with the first syllable of the word receiving primary stress. The speaker was asked to minimize the audible release of the nasal stops. The order of tokens was randomized for the recording. Table 2 lists the set of stimuli types used in Experiment 2, with the unstressed syllables in phonetic notation.

Table C.2

The 30 Word Types used as Stimuli for Experiment 2

be [in]	be[ln]	be[ən]	be[iŋ]	be[lŋ]	be[əŋ]
kiss[in]	kiss[ln]	kiss[ən]	kiss[iŋ]	kiss[lŋ]	kiss[əŋ]
sell[in]	sell[ln]	sell[ən]	sell[iŋ]	sell[lŋ]	sell[əŋ]
stoop[in]	stoop[ln]	stoop[ən]	stoop[iŋ]	stoop[lŋ]	stoop[əŋ]
talk[in]	talk[ln]	talk[ən]	talk[iŋ]	talk[lŋ]	talk[əŋ]

Procedure

There were 15 subjects who took part in the two experiments. The same 15 were used in both. Five of them had had previous training in phonetics, ten had none. All 15 of the subjects were native speakers of English.

Subjects were asked to identify the final nasal of each example as either apical or velar. This instruction was given in order to focus listeners' attention of the nasal stop, and to minimize their overt attention to the preceding vowel. Two preliminary stimuli were given to each subject to insure their understanding of the instructions. For both experiments each stimulus occurred twice, (in random order) resulting in a total of 900 responses for each experiment. (60 stimuli X 15 subjects)

Responses were coded on answer sheets by circling either an N for [n] or a G for [ŋ]. All subjects listened to the cassette recording through a Tandberg headset with identical volume, bass and treble values for all speakers. The subjects were not allowed to stop the tape, or go back.

Results

Table 3 shows the percentages of correct guesses for Experiment 1, for all 15 listeners. The table compares the percentages of correct guesses for the first instance of each example to the percentages for the second instance of it, anticipating the possibility of a learning trend.

Table C.3

Percentage of Correct Guesses for Stressed Syllables with Final [n] and [ŋ]
for Fifteen Speakers

	1st Guess	2nd Guess		1st Guess	2nd Guess
[in]	93.3	93.3	[iŋ]	53.3	83.3
[ɪn]	100	100	[ɪŋ]	100	100
[eyn]	100	86.7	[eyŋ]	93.3	100
[ɛn]	100	100	[ɛŋ]	100	100
[aen]	100	100	[aɛŋ]	100	100
[ʌn]	100	100	[ʌŋ]	100	100
[ʌn]	100	100	[ʌŋ]	53.3	93.3
[an]	100	100	[aŋ]	100	93.3
[ɔn]	100	100	[ɔŋ]	100	100
[on]	86.7	100	[oŋ]	100	100
[Un]	100	100	[Uŋ]	100	100
[un]	93.3	100	[uŋ]	100	100
[awn]	93.3	86.7	[awŋ]	100	73.3
[oyn]	93.3	86.7	[oyŋ]	80.0	93.3
[ayn]	100	93.3	[ayŋ]	60.0	93.3

N = 900

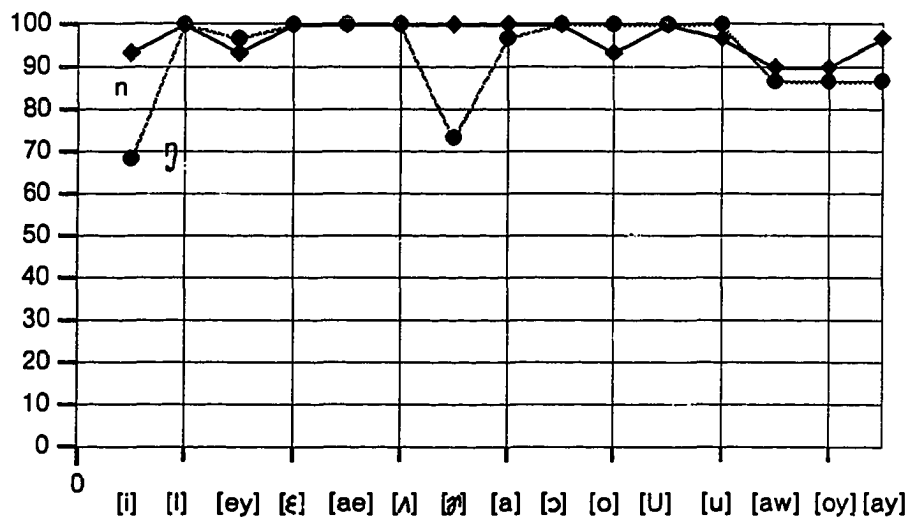
Table 3 shows a high degree of accuracy across listeners in their ability to correctly distinguish [n] from [ŋ] with a variety of preceding stressed vocalic environments. The results shown here are partially consistent with Zee's findings. Table 3 shows that [ŋ] was correctly identified only about 53% of the time with [i] as the preceding vowel, increasing to 83% on the second guess. Yet [n] is shown to be correctly identified 93% of the time. This is a higher rate of accuracy than reported by Zee.

Table 3 shows a high degree of accuracy in the identification of [n] and [ŋ] with preceding [a]. This result confirms Zee's findings for the effect of preceding [a].

Zee's experiments showed that [ŋ] tended to be identified as [n] in the environment of preceding [o] or [u]. This is not supported by the results shown in Table 3. The diphthongs in Table 3 show some misidentifications in both directions. With preceding [ʃ], [ŋ] showed a noticeable tendency to be identified as [n]. Figure 1 displays the results of Table 3 in graphic form.

Figure C.1

Graphic Representation of Data in Table C.3



The results for all 15 listeners for Experiment 2 are shown below in Table 4. The table displays the averages for the first and second guesses separately, to reveal any possible learning effect.

Table C.4
Percentage of Correct Guesses for Unstressed -ing Syllables
for Fifteen Speakers

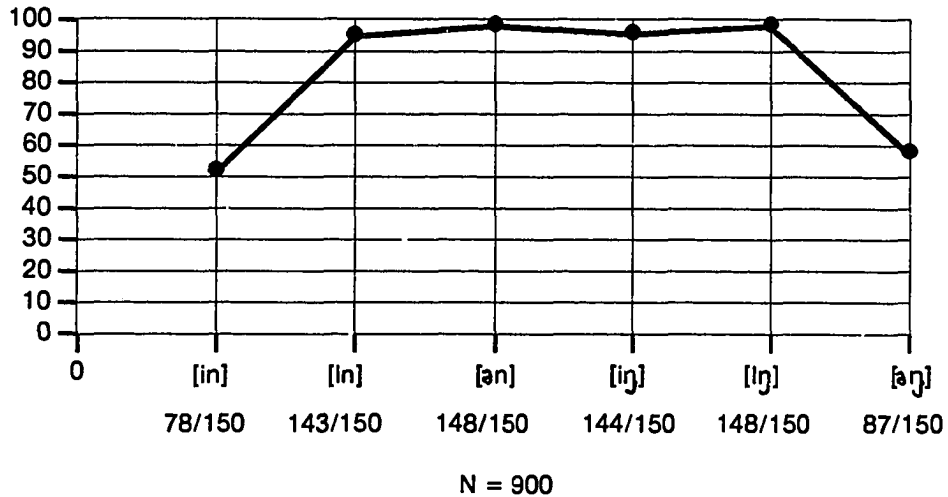
	1st Guess	2nd Guess		1st Guess	2nd Guess
be [iŋ]	100	100	kiss [iŋ]	100	100
be [in]	80.0	46.7	kiss [in]	66.7	60.0
be [ɪŋ]	93.3	100	kiss [ɪŋ]	100	100
be [ɪn]	100	100	kiss [ɪn]	100	100
be [əŋ]	86.7	40.0	kiss [əŋ]	33.3	86.7
be [ən]	100	93.3	kiss [ən]	100	93.3
sell [iŋ]	100	100	talk [iŋ]	100	93.3
sell [in]	46.7	46.7	talk [in]	33.3	20.0
sell [ɪŋ]	93.3	100	talk [ɪŋ]	100	86.7
sell [ɪn]	100	100	talk [ɪn]	93.3	100
sell [əŋ]	80.0	66.7	talk [əŋ]	20.0	40.0
sell [ən]	100	100	talk [ən]	100	93.3
stoop [iŋ]	100	67.7			
stoop [in]	67.7	53.3			
stoop [ɪŋ]	100	100			
stoop [ɪn]	93.3	100			
stoop [əŋ]	67.7	67.7			
stoop [ən]	100	100			

N = 900

Table 4 shows that [n] tends to be perceived as [ŋ] in the environment of preceding [i]. This result is just the opposite to that reported in Experiment 1 for preceding [i]. (see Table 3) In contrast to those results which showed that [ŋ] tended to be perceived as [n] in the environment of *stressed* preceding [i], Table 4 shows that [n] tends to be perceived as [ŋ] in the environment of *unstressed* preceding [i].

Conversely, in unstressed syllables [ŋ] tends to be perceived as [n] in the environment of preceding [ə]. Figure 2 displays the results of Table 4 in graphic form,

Figure C.2
Graphic Representation of Data in Table C.4



Although Table 4 revealed some differences between the five words with respect to percentage of accurate identification of the nasal, there is a consistent pattern in that every word type showed that the misperception of the nasal stops was associated with two values for the preceding vowel, [i] and [ɪ].

These misperceptions are also unidirectional as shown in Figure 2; [n] is perceived as [ŋ] with preceding [i], but there is no similar trend of misperception in the opposite direction. Similarly, [ŋ] is perceived as [n] with preceding [ə], but [n] is not perceived as [ŋ] with preceding [ə].

Table 5 shows the individual percentages for five words with respect to the values [in] and [əŋ]. The percentages are close, with the exception of those for *talking*, which shows noticeably lower percentages for both [i] and [ə].

Table C.5
Percentage of Correct Guesses for [in] and [ɪŋ] for Five Words

	[in]		[ɪŋ]	
	%	N	%	N
being	63.3	19/30	60.0	18/30
kissing	63.3	19/30	60.0	18/30
selling	46.7	14/30	73.3	22/30
talking	26.7	8/30	30.0	9/30
stooping	60.0	18/30	66.7	20/30

n = 300

The results for the phonetically trained listeners show a higher proportion of correct guesses than the phonetically untrained listeners. Table 6 compares the two groups of listeners according to the percentage of the 60 tokens which showed 100% agreement across listeners for Experiment 1.

Table C.6
Comparison of Percentage of 100% Agreement for Phonetically Trained versus
Phonetically Untrained Listeners

	stimuli	%	
phonetically trained	52/60	86.7	(percentage with 100% agreement)
phonetically untrained	40/60	66.6	(percentage with 100% agreement)

Results from Experiment 1

In Table 6, 100% agreement across listeners always means that they were 100% correct, since there were no examples in either experiment where listeners showed 100% agreement with a wrong answer. Although the phonetically trained listeners show a greater degree of convergence than the phonetically untrained, this may be due in part to the

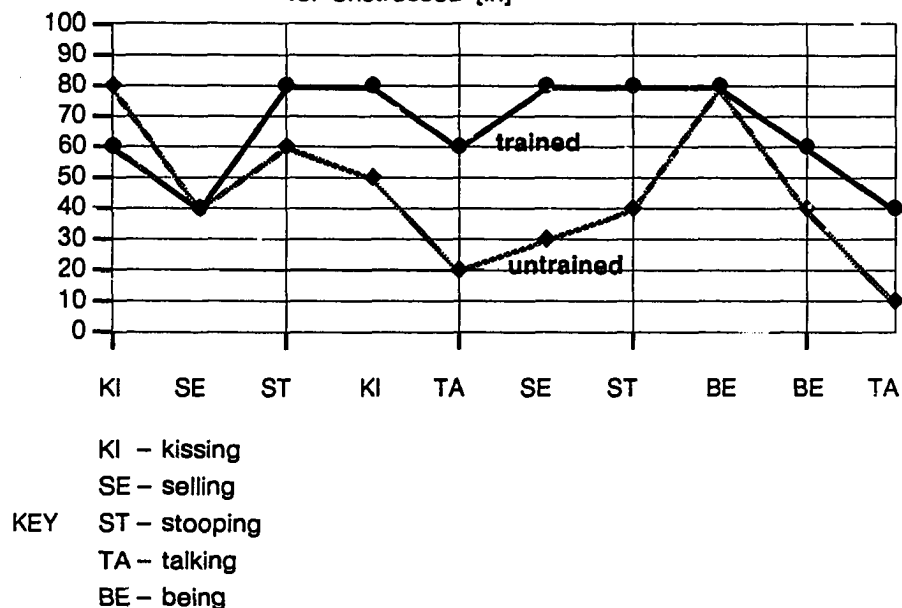
lower number of phonetically trained participants, five subjects in contrast to the ten phonetically untrained ones.

For the low percentage of correct guesses shown in Table 3 for /in/, the phonetically trained listeners did not do noticeably better than the non-phonetically trained. Both groups showed only 80% accuracy on the second try. (The first try showed 40% accuracy for phonetically untrained, and 60% accuracy for trained.)

Both phonetically trained and untrained listeners showed a worse performance in the second experiment, 61.7% of the examples showed 100% agreement for the phoneticians, and only 55% for the non-phoneticians. The differences between the two groups for [in] and [ɛŋ] in Experiment 2 are shown in Figure 3 and Figure 4.

Figure C.3

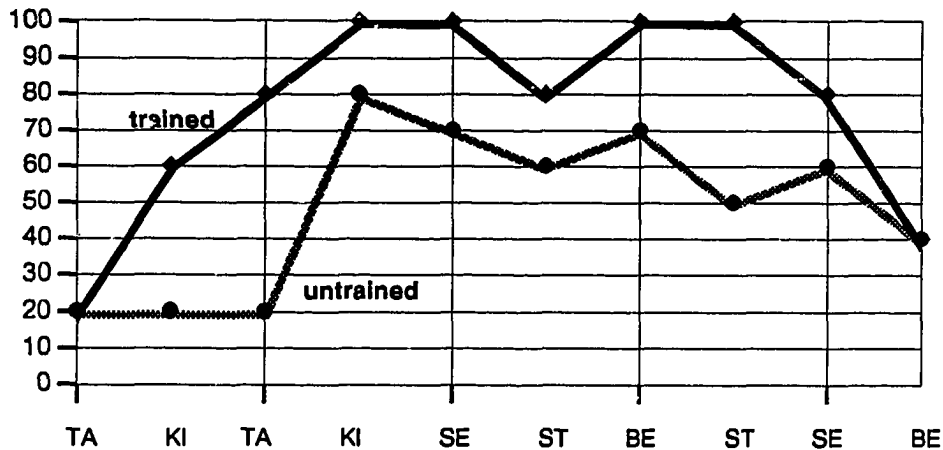
Percentage of Correct Guesses for Phonetically Trained and Untrained Listeners for Unstressed [in]



Note: There are two instances for each token, reflecting the first and second guess for each stimulus.

Figure C.4

Percentage of Correct Guesses for Phonetically Trained versus Untrained Listeners for Unstressed [əŋ]



Thus, although there is some indication that phonetic training results in a higher degree of accuracy in the identification of nasals in these experiments, the evidence cannot be considered conclusive.

There is no clear learning effect observed for either experiment. Table 4 shows that for some words the first token showed a higher percentage of correct guesses than the second, other words did show some improvement on the second try. Table 3 showed in general the same result for both tries; the diphthongs showed a slightly worse performance on the second try, but this was not consistently the case for all instances of the diphthongs.

The number of intervening examples between words with the same values for -ing, does not show a clear effect. Although the first example of *stoop*[əŋ] in Figure 4 immediately follows the preceding [əŋ] token, there is a noticeable decline in correct guesses for both groups of listeners. On the other hand, the first three examples in Figure 4 show a steady improvement for the phonetically trained listeners, although the tokens are not evenly spaced.

Discussion

Neither repetition of, nor distance between, the stimuli show a consistent effect in the observed pattern of correct guesses for unstressed [in] and [ɛŋ]. The evidence suggests that the vowel preceding the nasal of the -ing suffix does influence the perception of the nasal in some cases, with the individual word *talking* showing the lowest percentages of correct guesses among the five words.

One major conclusion to be drawn from Experiment 2 is that a preceding high front vowel contributes to the perception of a following [n] as [ŋ]. A similar trend of misperception of [n] for [ŋ] is not observed with the preceding vowels, [i] and [ɛ].

Misperception of [ŋ] as [n] was observed in Experiment 2 with the preceding vowel [ɛ]. The vowels [i] and [ɪ] were not found to contribute to this misperception.

The two types of misperception reported for Experiment 2 appear to be unidirectional, i.e., the percentage of correct guesses for [iŋ] and [ɛn] is much higher than those for [in] and [ɛŋ].

The results for stressed nonsense syllables reported in Experiment 1 are, in general, consistent with the findings of Zee. The preceding high front vowel [i] was shown to influence the perception of [ŋ] as [n]. In contrast to Zee's results, however, the opposite trend of [n] perceived as [ŋ] was not observed. The findings of Experiment 1 support Zee's findings for [a]; listeners are able to distinguish apical and velar nasal stops with a high degree of accuracy in the preceding environment of stressed [a].

These results suggest the importance of further research on the role of stress and its effects on the perception of the nasals [n] and [ŋ]. The fact that stress alone is not responsible for the misperceptions is shown by the fact that it does not appear to make any difference in the case of a preceding low vowel, [a]. On the other hand, its presence with preceding [i] appears to cause a misperception in the direction of [ŋ] to [n], whereas its absence leads to a misperception in the direction of [n] to [ŋ].

The differences in the results of these two experiments also suggest the possibility that higher level cognitive processes may be influencing the perception of [n] in the second experiment, since here meaningful words provided the stimuli, in contrast to nonsense syllables. One might even speculate that the sociolinguistic variable (ING) is influencing the perception in the second experiment, since the vowel variant [ə] was associated with the misperception of [ŋ] as [n]. Quantitative studies of (ING) have shown that in production, [ə] occurs almost categorically with [n], (Woods 1979), (Cofer 1972), (Trudgill 1974). But such a conclusion cannot be drawn until further experiments are conducted which can satisfactorily isolate social, cognitive and acoustically-based responses to the stimuli.

Appendix D: Sample Form for Morphology Experiment

In the following exercise, you are asked to provide word forms for the -ing nouns listed below. In some cases you may decide that there is no word form appropriate for a particular -ing noun. Use your own intuitions. Two samples are given to illustrate the procedure.

Samples			
ING NOUN	0 NOUN	PLURAL (S)	VERB
recording	record	recordings	to record
morning	no 0 form	mornings	no verb

roofing

tiling

ceiling

plumbing

railing

caulking

silvering

shelving

housing

stitching

tinning

lining

trimming

tubing

dwelling

hemming

glazing

gelding

legging

stocking

Appendix E: Tapes used in Synchronic Data Base

British Tapes

1. A697 Kenmore Park, Glasgow. D.T. (male, 74) G.J. (male, 71)
2. A025 Southall, London B.F. (male, 22)
3. A026 Southall, London B. F. (male, 22)
4. A421 Cardiff, R.K (male, 18) and K.W. (male, 19)
5. A422 Cardiff, G. (male), P. (male) and J. (female) (all three under17)
6. A483 Leeds C.S. (male,14), F.H. (male, 16), T. (male, 16)
7. A473 Edinburgh, Mrs. W. (female, 61) Mr. S. (male, 66)
8. A478 Gateshead, B. (male, 12) A. (male,10) D. (male, 13) R. K. (male, 36)
M.K. (female, 35)
9. A479 Gateshead R.K. (male, 36) M.K. (female, 35)
10. A022 Hackney, London. S.C. (male, 12), Mrs. C. (female, 30)
11. A696 Battersea Park, London. C.V. (female, 16) R.R. (female, 16)
12. A465 Glasgow. W.T. (male, 62), C.M. (male, 48), P.G. (male, 19)
13. A032 Chelsea, London. J.G. (male, 14), J.G. (male, 15)
14. A033 Chelsea, London. Soccer game, J.G. (male, 15)
15. A412 Eastville Park, Bristol J.R. (female, 13),
16. A413 Eastville Park, Bristol, G.G. (male, +55)
17. A406 Bethnal Green, London B.. (male, 39), R. (female, 36) S. (female, 19)
18. A445 Liverpool, T. B. (male, 57)
19. A447 Liverpool, J.D. (male, 21), E.M. (male, 19)
20. A440 Liverpool, A.F. (female, 14), K.H. (female, 13)
21. A487 Manchester, B.C. (male, 59), J.B. (male, 17), G.F. (male, 17)
22. A488 Manchester, G.F. (male, 17), J.B. (male, 17) anonymous old man

23. A489 Manchester, I. (male, 8), T.K. (male, 8), L.R. (female, 64)
24. A504 Bethnal Green, London. B. (female), F. (female), C. (female) (all three under 17), Essex Mr. R. (male, elderly), Mrs. R. (female, elderly)
25. A505 Tillingham, Essex, Mr. R. (male, elderly), Mrs. R. (female, elderly)
26. A495 Norwich. J.W. (male, 75)
27. A496 Norwich, Mr. N. (male, 86), Mrs. N. (female, 81)
28. A467 Edinburgh, Mr. Y. (male, 40), Mrs. Y. (female, 36)
29. A470 Edinburgh, A.G. (male, 16), W.W. (male, 15)
30. A474 Gateshead, M.G. (male, 16), J.S. (male, 16)
31. A432 Birmingham, M.L. (female, 72)

American Tapes

1. A173 Ozona, Texas S. (male, 13), R.P. (male, 14)
2. A174 Junction, Texas, J.T. (male, 19)
3. A316 Atlanta, Georgia. Mrs. G. (female, +55)
4. A317 Atlanta, Georgia, Mrs. G., (female, +55), Mr. G. (male, 59), B.G. (female, 28), G.G. (female, 31)
5. A318 Atlanta, Georgia, Mrs. G., (female, +55), Mr. G. (male, 59), B.G. (female, 28), G.G. (female, 31)
6. A313 Atlanta, Georgia, Mr. G. (59)
7. A314 Atlanta, Georgia, Mr. G. (59)
8. A315 Atlanta, Georgia, Mr. G. (59)

Appendix F: Historical Texts Used in the Diachronic Data Base

Prose

The Paston Letters and Papers of the 15th Century, Norman Davies (ed.), Oxford, Clarendon Press, 1971–76. 2 volumes.

The Cely Papers (1475–1488), Henry Malden (ed.), The Royal Historical Society, London (1900).

The Chamberlain Letters: A Selection of the Letters of John Chamberlain (1597–1626), Elizabeth McClure Thomsan (ed.), New York 1965.

St. German's Doctor and Student, Written in English for unlearned Publick, 2nd Dialogue, (1530), T.F.T. Plucknett and J.L. Barton (eds.), Selden Society, London 1974.

The Diary of the Reverend Ralph Josselin (1616–1683), E Hockliffe (ed.), The Royal Historical Society, London 1908.

The Verney Papers: Notes on Proceedings in the Long Parliament, (reign of Charles I), representing the original pencil memo of Sir Ralph Verney (1613–1696), John Bruce (ed.), Camden Society, London 1845.

The Essex Papers (1631–1684), of Arthur Capel Essex, 1st Earl of Essex, Osmund Airy (ed.), Camden Society, 1890.

Diary of a Common Soldier in the American Revolution, 1775–1783. Jeremiah Greenman. Robert Bray and Paul Bushnell (eds.), Northern Illinois Univ. Press, 1978.

Diary of a 49er. Alfred Jackson. R. Caufield (ed.), Chauncey de Leon, San Francisco, 1906.

The Diary of a Civilian's Wife in India, 1877–1882. Mrs. Robert Moss King. London, Bentley, 1884.

The Clockmaker: The Sayings and Doings of Sam Slick of Slicksville, Thomas Chandler Haliburton, 2nd. edition, Philadelphia, Carey Lee and Blanchard, 1836.

The Clockmaker: The Sayings and Doings of Sam Slick of Slicksville, Thomas Chandler Haliburton, 1923 edition, New York, George Dorvan and Co.

Baumann, Heinrich, Londonismen: slang und cant, 1902, Berlin, Langenscheidt.

Mrs. Brown in America, Arthur Sketchley (George Rose), London, Routledge, 1870.

Mrs. Brown in the Highlands, Arthur Sketchley (George Rose), London, Routledge, 1869.

Mrs. Brown on the Battle of Dorking, Arthur Sketchley (George Rose), London, Routledge, n.d.

The Pickwick Papers, Charles Dickens, London, Chapman and Hall, 1837 edition.

Cornish Tales in Prose and Verse, J.T. Tregellas (ed.), Truro J.R. Netherton, 1865.

Bairnsia Book Annual, A Pogmoor Olmanack, Leeds, 1852.

A Night in Belgrave Square, Richard Whiteley, London, 1867.

Poetry

Nineteenth Century Dramatic Burlesque of Shakespeare, (facsimile) Norwood Editions, 1980.

The Towneley Mysteries 1450–1500. G. England and W. Poleard (eds.), Early English Text Society, ex. ser. 71, Kraus Reprint, Millwood, N.Y., 1978..

York Plays 15th century. Lucy Toulmin Smith, (ed.), Early English Text Society, Oxford, Clarendon Press, 1885.

Norwich Plays c.1565. O. Waterhouse (ed.), Early English Text Society, ex. ser. 104, K. Paul Trench, Trubner and co., 1909.

Chester Plays c.1400. H. Deimling (ed.), Early English Text Society, vol. 62, K. Paul Trench, Trubner and co., 1895–1916.

N-Towne Plays c.1468. K.S. Block (ed.), Early English Text Society, ex. ser. 20, Oxford Press, 1922.

Brome Ms. 1470–80. Lucy Toulmin Smith (ed.), Anglia VII, pp. 316–337.

Data Sources Cited in Irwin (1967)

The Oldest English Texts, Henry Sweet (ed.), London 1885, 1888 Charters:Nos. 2,12,15,16,18,19,33,34,35,37,46,49,50,51,52,53,54. (c.788–c.815), 45, 46 (886 or 888), (871–89).

Select English Historical Documents of the Ninth and Tenth Centuries, ed. F.E. Harwar, Cambridge, 1914. Grant: Ceowulf to Canterbury Cathedral, MS. Cott. (806), Aug. II, 79, pp. 1–2.

- Anglo-Saxon Charters, A.J. Robertson (ed.), 2nd ed., Cambridge, 1956. Charters (743–823).
- King Alfred's Orosius, Henry Sweet (ed.) EETS 79, Part 1, London, 1883. Br. Mss. Addn. 47967, (c.900), pp. 450–53.
- 'Durham Admonition' in *Oldest English Texts*, *ibid.*, (late 900s), pp. 175–76.
- An Old English Martyrology, George Herzfield (ed.) EETS 116, London 1900, (c.900), pp. 40–90.
- King Alfred's West-Saxon Version of Gregory's Pastoral Care. Henry Sweet (ed.), EETS 45 and 50, London 1871. Hatton Mss.(9th cent.), pp. 3–69.
- Two of the Saxon Chronicles Parallel. Charles Plummer and John Karie, (eds.) Oxford 1952. Mss. A 'Parker' (c.900), I, pp. 42–91, 112, 206.
- 'Karl Aelfred's Will', Stowe Charter 20, (871–79), pp. 13–15, 15–19.
- Die angelsachsichen Prosabearbeitungen der Benedictinerregel, Arnold Schroer (ed.) KAI 1885, (1000), pp. 9–33, 1–5.
- The Holy Gospels, Walter Skeat (ed.) Cambridge 1871–87, (c.1000–50), pp. 66–102, 144–180, 114–142, 202–226.
- Sermo Lupi ad Angios, Dorothy Whitelock (ed.) London, 1939, (11thcent.), pp.23–42.
- Laecebon, Gunther Leonhardt (ed.) Hamburg, 1905, (11th cent.), pp. 23–42.
- The Vatican Fragment of the Old English Orosius, Janet Bately (ed.), *Anglian Studies*, XLV, 1964, (c.11th cent.), pp.224–30.
- 'De Consustudine Wonshorum' Arnold Schoer (ed) *Angische Studien*, IX, 1886 Cod. Cott. Tib. AIII, (c.1050), f.174a–176b.
- 'Eine Regel Uber Den Donner' B Assman (ed.), *Anglia*, X 1888. Vesp. D 14, (c.1150), f.103b.
- 'The Old English Gospel of Nicodemus', William Hulme (ed.), *Modern Philology* X, (late 11th/early 12th cent.), pp. 579–614.
- Appendix I of *Anglo-Saxon Charters*, J.A. Robertson, Cambridge, 1956, (1086).
- 'Treaty of Alfred and Buthrun', 'Laws of Edward and Guthrun', in *The Laws of the Earliest English Kings*, F.L. Attenborough, Cambridge 1922, (c.1125), pp. 98, 108.
- The Laws of the Kings of England*, (c.1100), pp. 8–10, 16–18, 154–218.
- 'Drei nordhumbrusche Urkunden um 1100' F. Lieberman (ed.), *Archiv fur das Studium der neueren sprachen und litteraturen*, CX, 1903, (c.1100), pp. 274–84.

- 'Aelfric's erster altenglischer Brief an Erabishop Wulfstan' In Die Hirtenbriefe Aelfrics, B. Fehr (ed.), Hamburg 1914, (c. 1080), pp. 69–144.
- Zur Sprache des Urkundenbuches von Westminster, E. Neufeldt (ed.) Berlin, 1907, Cott. Faust. Allf.
- King Alfred's Old English Version of Boethius, W.J. Sedgefield (ed.), Oxford 1899. Bodleian Mss. 180, (c.1110), pp. 1, 7–9, 10–11, 14, 21, 23–4, 26–7, 33–4, 46–7, 48–50, 51–2, 57–8, 64, 67–8, 69, 73–4, 79–82, 89, 94–6, 105, 111–112, 135–6, 146–7.
- 'Pseudo-Mattasi Evangelium' In Angelsächsische Homilien und Heiligeben, B. Assman, Kassel, 1889, (c.1175), pp. 117–137.
- Old English Homilies of the Twelfth Century, R. Morris (ed.), EETS, Series No. 53, London 1873, (c.1225), pp. 125–73.
- Be Lifeds ant to Passiun of Saints Tollens, S. d'Ardenee, EETS 89, London 1961, (c.1225), MS Bodley 23.
- Vices and Virtues, F. Holthausen (ed.), London 1888. Stowe Mss. 240, (c.1225), pp. 3–53.
- 'Her Begirines be Wohunge of Ure Lauerd', Cott. Ms. Titus D 18, and 'An Bispel", Cott. Ms. Vesp. A22, In Old English Homilies and Homilectic Treatises of the Twelfth and Thirteenth Centuries, R. Morris (ed.), EETS, 1st series, London 1868, (1200–50), nos. 29, 34.
- 'Old kentish Sermons', In An Old English Miscellany, R. Morris (ed.), EETS 49, London, 1872, (c.1300), pp. 26–36.
- 'A Most Ancient Petition (PRO, S C B 192/9580) (H. Whitehall (ed.), In Philological Quarterly, XVIII, 1939, (1344), pp. 306–310.
- 'Sermon on Matthew XXIV, 43', In Dan Michel's Ayenbite of Inwyt or Remorse of Conscience, R. Morris (ed.), EETS 23, London, 1866, (1340), pp. 263–271.
- 'The Cræed Paternoster, &c', In Reliquier Antiquae, T. Wright and J. Halliwell (eds.) 1845, (1325), MS Library of Caius Coll., Cambridge, I, 282.
- 'Early English Receipts for Painting, Gilding, &c.', T. Wright (ed.) In The Archeological Journal, I (2nd ed.), 1846, (1307), pp. 64–66.
- The Earliest Complete English Prose Psalter, K. Bulbring (ed.), EETS, London, 1891. Br. Mss. Addn. MS 17376, (c.1350), pp. 1–36.
- 'Writ', In Gilbert Crispin: Abbot of Westminster, R.J. Armitage, Cambridge, 1911, (c.1300), p. 37.
- 'A Fragment of the Ancren Riwe', A. Napier (ed.), The Journal of Germanic Philology, II, (n.d.), (c.1350), pp. 179–202. Ms. Nero AXIV.

- 'Kleinere Mittelenglische Texte', M. Forster (ed.), *Anglia*, XLII (new series XXX), 1918, (c.1300), pp. 145–224.
- The English Text of the *Ancren Riwe*, R.W. Wilson (ed.), EETS 229, London, 1954, (c.1350), pp. 1–25.
- Wills of Bishop Theodred, Aelfgar, Thurketel of Palgrave, Thurketel Heyng, Thurstan, Edwin, IN *Anglo-Saxon Wills*, D. Whitelock (ed.), Cambridge 1930, (c.1300), pp. 2, 4, 6, 8, 68,70. 80. 82, 84, 86, 88.
- Equatorie of the Planetts*, D. J. Price (ed.), Cambridge, 1955. Peterhouse Ms 75, I, (c.1392).
- Mandevilles's Travels*, P. Hamelius (ed.), EETS 153, 154, London, 1919. Cott. Titus C XVI, (c.1425), pp. 6–31.
- Select English Works of John Wyclif*, T. Arnold (ed.), 3 vols., Oxford, 1869. Ms. Bodl. 788, (1425), I, pp. 148–175.
- A Book of London English: 1384–1425*, R.W. Chambers and M. Daunt (eds.), Oxford, 1931, (1407–18), pp. 54–5, 94–6, 140–2, 212–6.
- Yorkshire Writers: Richard Rolle of Hampole and His Followers*, C. Horstman (ed.), 2 vols., London, 1985. Ms. Rawl. 389, Ms. Arund. 507, Ms. Harl. 1022, (1400, 1425), I, pp. 61–71, 50–57, 416–20, 186–91.
- The Recluse: A Fourteenth Century Version of the Ancrene Riwe*, J. Pahlsson (ed.), Lund, 1918. Ms. Pepys 2498, (c.1400), pp. 1–6.
- 'The Bee and the Stork', In *English Writings of Richard Rolle: Hermit of Hampole*, H.E. Allen (ed.), Oxford, 1931. (c.1440), pp. 54–6.

Bibliography

- Abdel-Jawad, Hassan (1979). A report on the (ING) variable in a Philadelphia speech community (Fishtown). Unpublished 561 Report, William Labov's research seminar on field methods.
- Akmajian, Adrian (1977). The complement structure of perception verbs in an autonomous syntax framework. In P. Culicover, T. Wasow and A. Akmajian (eds.) *Formal Syntax*. Academic Press.
- Anshen, Frank (1969). *Speech Variation among Negroes in a Small Southern Community*. Unpublished dissertation, New York University.
- Aristar, A. and H. Dry (1982). The origin of backgrounding tenses in English. Chicago Linguistic Society.
- Armstrong, J.L. (1892). The gerund in nineteenth century English. *PMLA*, VII, pp. 200-11.
- Arnaud, Rene (1973). *La Forme Progressive: En Anglais Du XIX Siecle*. Dissertation, Univ. of Paris.
- _____ (1982). On the progress of the progressive in the private correspondence of famous British people. Second Scandanavian Symposium on Syntactic Variation, Stockholm University, May 15-16th, 1982.
- Aronoff, Mark (1980). The relevance of productivity in a synchronic description of word formation. In Jacek Fisiak (ed.) *Historical Morphology*. Mouton, the Hague.
- Bernstein, Basil (1964a). Elaborated and restricted codes: their social origins and some consequences. In J. Gumperz and D. Hymes (eds.) *The Ethnography of Communication*, *American Anthropologist*, 66, pp. 55-69.
- Bloomfield, Leonard (1933). *Language*. New York.
- Bogholm, R. (1939). *English Speech from an Historical Point of View*, Copenhagen, London.
- Bosworth, Joseph (1898). *An Anglo-Saxon Dictionary*. Edited and enlarged by T. N. Toller, Oxford, 1908-1921.
- Brunner, Karl (1955). Expanded verbal forms in early modern English. *English Studies*, 36, pp. 215-21.
- _____ (1963). *An Outline of Middle English Grammar*. trans. Grahame Johnston, Oxford.
- Bullokar, William (1586). *Bref Grammar for English*. Scolar Press, 1977.

- Callaway, Morgan (1889). *The Absolute Participle in Anglo-Saxon*, John Hopkins dissertation. Baltimore.
- _____ (1901). *The appositive participle in Anglo-Saxon*. Publications of the Modern Language Association of America, XVI, pp. 141-160.
- _____ (1913). *The Infinitive in Anglo-Saxon*. Carnegie Institute of Publications, Washington, D.C., No. 169.
- _____ (1929). *Concerning the origin of the gerund in English*. In Kemp Malone and Martin B. Ruud (eds.), *Studies in English Philology: A Miscellany in Honor of Frederick Klaeber*. Minneapolis.
- Campbell, A. (1959). *Old English Grammar*. Clarendon Press, Oxford.
- Cedergren, Henrietta (1973). *The Interplay of Social and Linguistic Factors in Panama*. Unpublished doctoral dissertation, Cornell University.
- Cedergren, Henrietta and David Sankoff (1974). *Variable rules: performance as a statistical reflection of competence*. *Language* 50, pp. 333-
- Cheshire, Jennifer (1978). *Present tense verbs in Reading English*. In P. Trudgill (ed.) *Sociolinguistic Patterns in British English*, Edward Arnold.
- Chomsky, Noam. (1970a). *Remarks on nominalization*. In R. Jacobs and P. Rosenbaum (eds.) *Readings in English Transformational Grammar*, Ginn. Waltham, Massachusetts.
- _____ (1975c). *Conditions on rules of grammar*. R. Cole (ed.) *Current Issues in Linguistic Theory*, Indiana Univ. Press.
- _____ (1981). *Lectures on Government and Binding*. Foris Publications, Dordrecht.
- Coates, Jennifer (1983). *The Semantics of the Modal Auxiliaries*. London and Canberra, Croom Helm.
- Cofer, Thomas M. (1972). *Linguistic Variability in a Philadelphia Speech Community*.
- Coles, Elisha (1674) *The Compleat English Schoolmaster*. Scholar Press, Mension, 1972.
- Curme, George O. (1912). *History of the English gerund*. *Englischen Studien*, XLV, pp. 349-380.
- Dal, Ingerid (1952). *Zur entstehung des Englischen participium praesentis auf -ing*. *Norsk Tidskrift for Sprogvidenskap*, XVI, pp. 5-116.
- Davies, Constance (1934). *English Pronunciation from the Fifteenth to the Eighteenth Century*. London.
- Dees, A. (1971). *etude sur l'evolution des demonstratifs en ancien et en moyen français*. Wolters-Noordhoff Pub., Gronigen.

- Dobson, E.J. (1957). *English Pronunciation: 1500–1700*. Oxford.
- (1969). Early modern standard English. In Roger Lass (ed.) *Approaches to English Historical Linguistics*. Holt, Rinehart and Winston.
- Douglas-Cowie, E. (1978). Linguistic code-switching in a Northern Irish village: social interaction and social ambition. In P. Trudgill (ed.) *Sociolinguistic Patterns in British English*, Edward Arnold.
- Einenkel, Engen (1914). Die entwicklung des englischen gerundiums, *Anglia*, XXXVIII, pp. 1–76.
- Ellis, Alexander J. (1869–89). On Early English Pronunciation. *Early English Text Society*, ex. ser. vols. 2, 7, 14, 23, 56.
- Feagin, Crawford (1979). *Variation and Change in Alabama English*. Georgetown Univ. Press.
- Fillmore, Charles (1963). The position of embedding transformation in a grammar. *Word*, 19, pp. 208–231.
- Fischer, J.L. (1958). Social influences on the choices of a linguistic variant. *Word*, 14.
- Fisiak, Jacek (ed.) (1980). *Historical Morphology*. Mouton, the Hague.
- Fodor, J.A. (1975). *The Language of Thought*. Thomas Crowell, New York.
- Friedman, Michael (1981). Theoretical explanation. In Richard Healey (ed.), *Reduction, Time and Reality: Readings in the Philosophy of the Natural Sciences*, Cambridge Univ. Press, pp. 1–16.
- Gaaf, W. van der (1928). The gerund preceded by the common case. *English Studies*, X, pp. 33–41, 65–72.
- Gil, Alexander (1619). *Logonomia Anglica*, O.L. Jirzcek (ed.), *Quellen und Forschungen zur Sprach- und Culturgeschichte der Germanischen Volker*, 1903.
- Goffman, Erving (1978). Response cries. *Language*, 54, pp. 787–815.
- Grady, M. (1967). On the essential nominalizing function of English (ING), *Linguistics*, 34.
- Gregg, Robert (1984). *The Survey of Vancouver English*. Excerpt from Final Report to the Social Sciences and Humanities Research Council, Ottawa.
- Gumperz, John (1964). Linguistic and social interaction in two communities. In J. Gumperz and D. Hymes (eds.) *The Ethnography of Communication*, *American Anthropologist*, 66, pp. 137–154.
- Guy, Gregory (1980). Variation in the group and the individual: the case of final stop deletion. In W. Labov (ed.) *Locating Language in Time and Space*, Academic Press, pp. 1–36.

- Habick, Timothy (1980). *Sound Change in Farmer City: A Sociolinguistic Study based on Acoustic Data*. unpublished dissertation, University of Illinois.
- Hall, John R. Clark (1960). *A Concise Anglo-Saxon Dictionary*. 4th edition, Cambridge.
- Harris, Zellig (1982). *A Grammar of English on Mathematical Principles*. New York, Wiley.
- Hart, John (1569). *An Orthographie*.
- Hodges (1644). *The English Primrose*. H. Kauter (ed.) *Germanische Bibliothek*, Abt. 2, Bd. 82, Heidelberg, 1932, (facsimile).
- Hoeningwald, Henry (1960). *Language Change and Language Reconstruction*, University of Chicago Press.
- _____ (1977). intentions, assumptions and contradictions. In Roger Cole (ed.) *Indiana Univ. Press*.
- Horn, George (1975). On the nonsentential nature of the Poss-ing construction. *Linguistic Analysis*, 1.4, pp. 333-388.
- Houston, Ann (1983). Aspects socio-historiques de deux constructions participiales de l'Anglais. *Protee*, 11, pp. 11-22.
- _____ (to appear) The English gerund: syntactic change and discourse function. *Proceedings from the 11th N-WAVE Conference*, Georgetown Univ. Press.
- Hughes, A. and P. Trudgill (1979). *English Accents and Dialects*. London: Edward Arnold.
- Hymes, Dell (1972). Models of the interaction of language and social life. In J. Gumperz and D. Hymes (eds.) *Directions in Sociolinguistics*. Holt, Rinehart and Winston.
- Irish Spelling Book* (anon. 1740). Scolar Press, Menston, 1969.
- Irwin, Betty (1967). *The Development of the -ing Ending of the Verbal Noun and the Present Participle from c.700 to c.1400*. Unpublished dissertation, University of Wisconsin.
- Jackendoff, Ray (1977). *X Syntax: A Study of Phrase Structure (Syntax)*. Linguistic Inquiry Monograph no. 2. MIT Press.
- Jespersen, Otto (1926). *On -Ing*. Society for Pure English, TractNo. XXV, pp. 147-172. Oxford.
- _____ (1956). *Growth and Structure of the English Language*. 9th edition, Garden City, New Jersey.
- _____ (1965). *The Philosophy of Grammar*. W.W. Norton and Co., New York.
- Johnson, Ben (1640-1). *English Grammar*, Herford & Simpson (eds.), Strickland Gibson, 1927.

- Joynes, Mary Lu (1958). *Structural Analysis of Old English Metrics*. dissertation, University of Texas, Austin.
- Kellner, Leon (1892). *Historical Outlines of English Syntax*. Macmillan and Co.
- Kempe, Margery (c1400). *the Book of Margery Kempe*. G. B. Meech (ed.), *Early English Text Society, old ser. vol. 212*, Oxford Univ. Press, 1940.
- King, Robert D. (1978). *Functional load and sound change*. In Philip Baldi and Ronald Werth (eds.) *Readings in Historical Phonology*. Pennsylvania State Univ. Press.
- Kroch, Anthony and Donald Hindle (1982). *A Quantitative Study of the Syntax of Speech and Writing. Final Report to NIE*.
- Kroch, Anthony (1978). *Toward a theory of social dialect variation*. *Language in Society*, vol. 7, pp. 17-36.
- Kurath, Hans and S.M. Kuhn (eds.) (1952). *Middle English Dictionary*. Ann Arbor.
- Labov, William (1966). *The Social Stratification of English in New York City*, Center for Applied Linguistics.
- _____ (1972a). *Sociolinguistic Patterns*. University of Pennsylvania Press.
- _____ (1972b). *Language in the Inner City: Studies in the Black English Vernacular*. Univ. of Pennsylvania Press.
- _____ (1975). *On the use of the present to explain the past*. *Estrato de: Linguistics at the Crossroads*, Liviana Editrice, Jupiter Press.
- _____ (1980). *The social origins of sound change*. in W. Labov (ed.) *Locating Language in Time and Space*, Academic Press.
- _____ (ed.) (1980). *Locating Language in Time and Space*. Academic Press.
- _____ (1982). *Objectivity and commitment in linguistic science: the case of the Black English trial* in Ann Arbor. *Language In Society*, vol. 11, pp. 165-201.
- _____ (to appear) *The exact description of the speech community: short a in Philadelphia*. *Proceedings of NWAV XI*, Washington D.C., Georgetown Univ. Press.
- Labov, William, P. Cohen, C. Robins and J. Lewis (1968). *A Study of the non-standard English of Negro and Puerto Rican speakers in New York City*. Report on Co-operative Research Project 3288, New York, Columbia University.
- Labov, William and David Sankoff (1979). *On the uses of variable rules*. *Language in Society*, vol. 8, no. 2, pp. 189-221.
- Labov, William, Yaeger M. and R. Steiner (1972). *A Quantitative Study of Sound Change in Progress*. Final Report on National Science Foundation contract NSF-3287. U.S. Regional Survey.

- Labov, William and Judith Weiner (1975). Constraints on the agentless passive. Unpublished.
- Langacker, R. (1977). Syntactic re-analysis. In Charles Li (ed.), *Mechanisms of syntactic Change*, Univ. of Texas Press, Austin.
- Langenhove, George Ch. van (1925). *On the Origin of the Gerund in English*. Brussels.
- Lasnik, Howard and R. Fiengo (1974). Complement object deletion. *Linguistic Inquiry*, 5, pp. 535–571.
- Lees, R.B. [1960]. *The Grammar of English Nominalizations*. Mouton, the Hague.
- Legum, Stanley and W. Stolz. (1967). The role of dialect in the school: socialization of lower class children. Final Report on Headstart Evaluation and Research, Section 5.
- Leith, Dick (1983). *A Social History of English*. Routledge & Kegan Paul, London.
- Levine, Lewis and H.J. Crockett, Jr. (1966). Speech variation in a Piedmont community: postvocalic r. In S. Lieberman (ed.) *Explorations in Sociolinguistics*, *Sociological Inquiry*, 36, 2.
- Lightfoot, David W. (1979). *Principles of Diachronic Syntax*. Cambridge University Press.
- Long, M. (1944). *English Strong Verbs from Chaucer to Caxton*. Univ. of Wisconsin Press.
- Lovelich, Herry (c1450). *History of the Holy Grail*. F. J. Furnivall (ed.), *Early English Text Society*, 1874–1908, ex. ser. vols. 20, 24, 28, 30, 95, N. Trubner, London.
- Lowe, Solomon (1755). *The Critical Spelling Book*. Scolar Press, Leeds, 1967.
- Marchand, Hans (1969). *The Categories and Types of Present-day English Word Formation: A Synchronic-Diachronic Approach*. 2nd edition, Munchen, Beck.
- Marckwardt, Albert and James Rosier (1972). *Old English Language and Literature*, W.W. Norton & Co., New York.
- Marckwardt, Albert (1948). *Want* with ellipsis of verbs of motion. *American Speech*, 23, pp. 3–9.
- Martinet, Andre (1952). Function, structure and sound change. *Word*, 8, pp. 1–32.
- Matthews, William (1938). *Cockney, Past and Present, A Short History of the Dialect of London*. New York.
- McIntosh, Agnus (1969). The analysis of written Middle English. In Roger Lass (ed.) *Approaches to English Historical Linguistics*. Holt, Rinehart and Winston, New York.
- Milroy, James (1984). The history of English in the British Isles. In Peter Trudgill (ed.) *Language in the British Isles*, Cambridge University Press.

- Milroy, James and Milroy Leslie (1978). Belfast: Change and variation in an urban vernacular. In P. Trudgill (ed.) *Sociolinguistic Patterns in British English*, Edward Arnold.
- Milroy, Leslie. (1980). *Language and Social Networks*. Basil Blackwell, Oxford.
- Moore Samuel, S. Meech and H. Whitehall (1935). *Middle English dialect characteristics and dialect boundaries*. University of Michigan Language and Literature Series.
- Moore, Samuel (1963). *Historical Outline of English Sounds and Inflections*. Revised by A. Marckwardt, George Wahr Pub., Ann Arbor.
- Moore, Samuel (1927). Loss of final n in inflectional syllables of Middle English. *Language*, 3, pp. 238–66.
- Mosse, Fernand (1938). Histoire de la forme périphrastique être participe présent en Germanique. *Collection Linguistique XLIII*, pp. 1–302.
- Mustanoja, Tauno F. (1960). *A Middle English Syntax*. Part 1. Societe Neophilologique, Helsinki.
- Orton, H. and Barry M. (1970). *Survey of English Dialects*. 8 vols. London.
- Oxford English Dictionary* (1908). James Murray (ed.), Oxford, Clarendon Press.
- Pierce, C.S. (1966). *The Collected Papers of C.S. Pierce*. C. Hartshorne, P. Weiss, A. Burks (eds.), Harvard Univ. Press.
- Potter, Simeon (1969). *Changing English*. London, Deutsch.
- Poutsma, H. (1923). *The Infinitive, The Gerund and the Participle of the English Verb*. Groningen.
- Price, Owen (1668). *English Orthography*. Scolar Press, Menston, 1972.
- Radford, Andrew (1981). *Transformational Syntax: A Student's Guide to Chomsky's Extended Standard Theory*. Cambridge.
- Reid, Euan (1978). Social and stylistic variation in the speech of children: some evidence from Edinburgh. In P. Trudgill (ed.) *Sociolinguistic Patterns in British English*, Edward Arnold.
- Reuland, Eric (1983). Governing –ing. *Linguistic Inquiry*, pp. 101–135.
- Robinson, Robert (1617). *The Art of Pronuntiation*.
- Rooth, Erik (1941). Zur geschichte der englischen partiziprasens form auf –ing. *Studia Neophilologica*, XIV, pp. 71–85.
- Ross, John R. (1973). Nouniness. In Osamu Fujimura (ed.) *Three Dimensions of Linguistic Theory*, Tokyo Institute for Advanced Studies of Language, TEC Company. Ltd., Tokyo.

- _____ (1972a). Endstation Hauptwort: the category squish. Papers from the Eighth Regional Meeting, Chicago Linguistic Society, pp. 252–286.
- Sapir, Edward (1921). *Language: An Introduction to the Study of Speech*. New York, Harcourt Brace.
- Samuels, M.L. (1969). The role of functional selection in the history of English. In Roger Lass (ed.) *Approaches to English Historical Linguistics*. Holt, Rinehart and Winston.
- Sankoff, Gillian (1980). *The Social Life of Language*. University of Pennsylvania.
- Saussure, Ferdinand de (1959). *A Course in General Linguistics*. New York.
- Schachter, Paul (1976). A nontransformational account of gerundive nominals in English. *Linguistic Inquiry*, 7.2, pp. 205–241.
- Selkirk, Elisabeth O. (1982). *The Syntax of Words*. Linguistic Inquiry Monograph no. 7. MIT Press.
- Shaklee, Margaret (1980). The rise of Standard English. In T. Shopen and J. Williams (eds.) *Standards and Dialects in English*, Winthrop Pub., Cambridge, pp. 33–62.
- Shuy Roger, Walt Wolfram and William Riley (1967). *Linguistic Correlates of Social Stratification in Detroit Speech*.
- Sievers, E. (1970). *An Old English Grammar*. Translated and edited by Albert Cook, AMS Press, New York, 1970. Based on the 1903 edition.
- Sivertsen, E. (1960). *Cockney Phonology*. Oslo Univ. Press.
- Skeat, Walter (1927) *A Concise Etymological Dictionary of the English Language*. Oxford, Clarendon Press.
- Smith, Reed (1911). Participle and infinitive in -ing. *Bulletin of University of South Carolina*, No. 27.
- Stolz Walter and Garland Bills (unpub.). *An investigation of the standard–nonstandard dimension of central Texas English*. Mimeographed.
- Sturtevant, Edgar (1947). *An Introduction to Linguistic Science*. New Haven, Yale Univ. Press.
- Sweet, Henry (1900). *A New English Grammar: Logical and Historical*. Oxford, Clarendon Press.
- Tarallo, Fernando (1983). *Relativization Strategies in Brazilian Portuguese*, dissertation, University of Pennsylvania.
- Thompson, Sandra (1973). On subjectless gerunds. *Foundations of Language*, 9, pp. 374–383.
- Toller, T. Northcote (1921). *Supplement to An Anglo–Saxon Dictionary*. Oxford.

- Toon, Thomas (1983). *The Politics of Early English Sound Change*. Academic Press.
- (xerox) *The variationist analysis of early Old English manuscript data*.
- Traugott, Elizabeth (1965). Diachronic syntax and generative grammar. *Language* 41, p. 402–15.
- (1972) *A History of English Syntax*. Holt, Rinehart and Winston, New York.
- Trudgill, Peter (1974). Sex, covert prestige, and linguistic change in an urban British English of Norwich. *Language in Society* 1.
- (1972). *The Social Differentiation of English in Norwich*. Cambridge Univ. Press.
- (1978). *Sociolinguistic Patterns in British English*. Edward Arnold.
- Visser, F. T. (1963–73). *An Historical Syntax of the English Language*, vols. I–IIIb, Leiden, Brill.
- Vorlat, Emma (1975). *The Development of English Grammatical Theory 1586–1737*. Leuben Univ. Press.
- Wald, Benji and Timothy Shopen (1981). A researcher's guide to the sociolinguistic variable (ING). In *Style and Variables in English*, T. Shopen and B. Wald (eds.), Winthrop Pub., Inc.
- Walker (1791). *Pronouncing Dictionary*.
- Wasow, Thomas and Thomas Roeper (1972). On the subject of gerunds. *Foundations of Language*, 8.1, pp. 44–61.
- Weber W.L. (1900). The English Gerund. *Proceedings of the Modern Language Association*, XXV, pp. 80–91.
- Weekly, Ernest (1916). *Surnames*. J. Murray, London.
- (1967). *An Etymological Dictionary of Modern English*. Volumes 1 and 2, Dover Publications.
- Weinreich, Uriel (1968). *Languages in Contact*. Mouton, the Hague.
- Weinreich, Uriel, William Labov and Marvin Herzog (1966). Empirical foundations for a theory of language change. In W. Lehmann and Y. Malkiel (eds.) *Directions for Historical Linguistics*, Univ. of Texas Press, Austin.
- Wik, Beret (1973). *English Nominalizations in -Ing*. Uppsala
- Wolfram, Walt and Christian (1980). On the application of sociolinguistic information: test evaluation and dialect differences in Appalachia. In T. Shopen and J. Williams (eds.) *Standards and Dialects in English*, Winthrop Pub., Cambridge, pp. 177–218.

- Woods, Howard (1978). *A Socio-Dialectal Survey of the English Spoken in Ottawa: A Study of Sociolinguistic and Stylistic Variation*. Unpublished doctoral dissertation, Univ. of Ottawa.
- Wright, James (1979). The behavior of nasalized vowels in the perceptual vowel space. Xeroxed copy.
- Wright, J. and E.M. Wright (1925). *Old English Grammar*. Oxford.
- Wyld, Henry C. (1936). *A History of Modern Colloquial English*. Basil Blackwell, Oxford.
- Zee, Eric (1981). Effect of vowel quality on perception of postvocalic nasal consonants in noise. *Journal of Phonetics*, 9, pp. 35-48.

Index

<a>, 35,252
Abdel-Jawad, H., 25,49
abduction, 334
actuation problem, 4,364
Aelfric, 41
affix-hopping, 288,289
age, 21,85,101,108,140,145,158,220
Akai, 370
Akmajian, A., 193-195,307
Alfred, 41
allomorph, 320
-an, 270
analogy, 207,317
<and>, 35,218,238,265,276,277,279,361
Anshen, F. 2,3,18,81,98
-ant, 319
Appalachian English, 302,303,305
apostrophe, 81,53 226,339-343,346-350,355,356,362,363
Aristar, A., Dry, H., 197
Arkansas, 351
Armstrong, J., 30,37,38,39,184,185,268
Arnaud, R., 7,162,197,199
Atlanta, 64,69,80,150
backformation, 171
Bairnsia Books' Annual, 348,349
Battersea Park, 59,61,62,106,129,143
Baumann, H., 342,343
Beembe,88
Berkeley, 351
Bernstein, B. 5
Bethnal Green, 65,129,145
BEV, 42,44
Birmingham, 95,106,129,130,145
Bogholm, 333
bracketing, 4
Bristol, 105,106,126
Brome, Ms., 237
Brooklynese, 356
Brunner, K. 1,4,45,263,272,282
Bullokar, W., 337
<ç>, 278
CAD/CAM, 369
California, 351

Callaway, M., 40,41,63,185,201,204,218,219,314,334
 Campbell, A., 1,4,269–272
 Campion, E., 359
 Canadian English, 24
 Cardiff, 60,65,71,105,106,123
 careful speech, 18
 Carrington, L. 14
 case , 4,5,13,174,239,241,245,252,252,254,260,261,262,277,280,
 325,326,350,364
 Castor Songs, 342–335
 casual speech, 16
 Catcher in The Rye, The, 197
 Caxton, 26
 CBC, 21,44
 Cely Papers, 55,169,180,200,298,300
 Cedergren, H., 10,85
 Cedergren, H. Sankoff, D., 46
 Chamberlain Letters, 55,183,187,190,200,205,213,214,298,312,
 313,334
 change in progress, 25,85
 change, language, 2–5,9
 change, syntactic, 3
 Chaucer, G., 40,165,213,215,286,319
 Chelsea, 51,52,61,124
 Chester Plays, 237
 Chomsky, N., 15,28,56,70,107,157,191,218,288,323,333,365
 Clockmaker, The, 55,200,212,220,286,301,302,339,340
 Coates, J., 84
 Cofer, T., 2,3,15,19,22,48,86,157,390
 Coles, E., 269
 competence, 157,332,348,365
 constraints, 2,4,364
 continuity, 2,13,59,63,287,360,361,363
 continuum , 103,112,120,121,130,156,259,287,288,321,322,324,332,360,363
 control, syntactic, 71,72,123,125,128,130,255,257,258,307
 coreference, 191,201
 Cornish, 346
 Cray, 369
 cross-over, 254,255
 Curme, G., 39–41,189,196,209
 -cy, 322
 <d>, 33,241,268
 Dagonet Ballads, 342,342

Dakota, 88
 Dal, I., 15
 Dayton, E., 44
 declensions, 242
 Dees, 7
 Defensor, 41
 demarcation, 103,349,366
 Dennis, Leah, 197
 descriptive adequacy, 70
 derivational -ing, 15,23,287,288,289,291,320,322,328,332
 Detroit, 18
 (dh), 16
 diacritics, 291
 dialect system, 18
 Dickens, C., 340,344
 diphthong, 52,388
 discrete categories, 3
 Dobson, E., 35,268,273
 Dolby, 370
 Douglas-Cowie, E., 3
 <e>, 53,54,223,228,229,230,231,232,234,235,237,238,239,240,243,244,245,251,
 252,253,254,260,262,263,264,265,268,277,278,280,348,350,354,361
 Earliest English Text Psalter, 41
 Ebrie, 88
 Edinburgh, 18,60,61,64,65,72,106,126
 Einkenel, E., 15,36,37,281,282
 Ellis, A., 340
 embedding problem, 3
 embedding, social, 4,16
 -en, 269,273,281,290
 -end, 269
 England, 78,95,138,293,360,364
 -enne, 271,281,282,326
 envelope of variation, 27,46
 Equi NP Deletion, 71,128,191,192,196,213,283,293,305,306
 -ere, 269,271
 Essex, 61,62,72,81,95,106,126,129,145,146,236,267
 Essex Papers, 181,214,313
 evaluation problem, 4,13
 evaluative meaning, 226
 evaluation, social, 336,340,350,355,356,357,364
 Extended Standard Theory, 323
 external, 8,21,288,358,365

factor group, 48
 fanning effect, 136–137
 Feagin, C., 81,359
 Fillmore, C., 192
 Fischer, J., 15,16,77
 Fodir, J., 365
 formants, 273
 French , 77,116,134,207,215,216,230,319
 Friedman, M., 369
 Frisian, 77,170
 functional load, 10,11
 <g> , 13,26,53,223,225,227,237,339,348,349
 Gateshead, 60,64,65,106
 genre , 84,204,219
 Georgia, 22
 gender, grammatical, 293
 Georgia, 351
 German, 260
 Gil, A., 269
 Glasgow, 61,106,130
 glosses, 247,253
 glottal stop, 49
 Goffman, E., 76
 Gothic, 170,197
 gradience of acceptability, 32
 Greek, 77,197
 Greenman, J., 173,186,199,203,209,220,301
 Gregg, R., 24,25
 Gumperz, J.,8
 Guy, G., 10,363
 Habick, T., 273
 Hackney, 72,106,145
 half-stress, 269
 Haliburton, R., 286,301,339,340
 Hampole, 40
 Harris, Z., 56
 Hillsborough, 18
 Hittite, 197
 Hodges, 269
 homophonous, 337
 Horn, G., 28,30,45,289,290,328
 Houston, A., 204,219,314
 Hymes, D., 5,8

hypercorrection, 4,5,14,344–346,348
 <i>, 273,276
 Icelandic, 77
 <ie>, 273
 <ig>, 249,250,269,271
 Illinois, 351
 imperative, 243,244
 implicational scale, 63
 <in >, 220,226,249,336,337,341–343,346,350–353,362
 –ind , 2,5,22,33,34,98,162,188,198,204,207,260,263,268,269,276,277,278,285,
 295,303,319,337,355,360,361,364
 indicative, 243,244
 indicator, social, 337,355
 Indo–European, 197
 inflected infinitive, 38,41,282,283,284
 inflectional , 245,270,271,272,273,287,288,289,291,320,322,326,328,332
 inflectional –ing, 15,23
 information theory, 10,336
 inherent variation, 10–11
 instinctual behavior, 76
 intentional, 76
 internal, 3,8,21,332
 interviewing, 5–7i
 ntrospection, 365
 intuitions, 13
 Irwin, B . , 1,5,12,13,15,26,27,35,37,53,82,83,161,172,173,174,218,246,247,248,250
 ,252,254,261,263,264,266,268,272,277,278,279,281,282,286,292,361
 Irish Spelling Book, 338
 –isc, 269,271
 isogloss, 98,105,107,236,336,360,366
 i–stem, 174
 Jackendoff, R., 56,291,365
 Jackson, A., 181,191,210,334
 Jespersen, O., 63,69,183,185,189,196,209,295,303,310
 Jossalin, R., 173,180,186,203,313
 Joynes, M., 271
 Kellner, L., 69,185
 Kemp, M., 282
 King, R., 10
 King, M.R.M., 181,187,203,211,215
 knock–out factor, 148,150,158,238
 Kroch, A., 89
 Kroch, A., Hindle, D., 7

Labov, T., 91
 Labov, W., 2-9,14-17,24, 35,36,44,49,51,58,83,85,86,91,98,144,165,337,353,355,356
 ,359,363,365,366,367
 Labov, Cohen. Robbins, Lewis, 51
 Labov, W., Weiner, J., 158
 Labov, W. Yaeger, M., Steiner R., 10
 Lancashire, 237,239,351
 Langacker, R., 336
 Langenhove, G., 1,15,34,35,37,38,44,53,268,280,281
 language field, 8
 Lasnik, H., Fiengo, R., 193
 Latin, 4 0,41,77,185,191,197,201,204,218,286
 Leeds, 64,106,348,349,363
 Lees, R., 15,28
 Leipzig, 36
 leveling, 33,37,292
 Levine, L., Crockett, H., 3,18
 -lice, 213
 Lightfoot, D., 3,241,266,323-328,334,335
 -ling, 170
 linguistic rule, 3
 linguistic variable, 4, 15,23,43
 Liverpool, 60,69,106
 -ly, 213
 loci, 273
 log likelihood, 48,49,106,118,234,239,320
 London, 21,80,81,95,106,145,232,236,267,342,343,344,346,349,351
 Long Island, 351
 Long, M., 282
 long syllable, 270
 Lovelich, 282
 Lowe, S., 338
 Manchester, 61,64,106,129,145
 Marchand, H., 163,172,174
 Marckwardt, A., 359
 Marckwardt, A., Rosier, J., 26,271,272
 marker, social, 337,355
 Martinet, A., 11,336
 Massachusetts, 351
 matrix, 56,57,59,62,70,109,112,120,130,136,157,
 McDonalds, 356
 Mercian, 286
 merger, 25,37,59,161,268,279,284

Middle Dutch, 170
 Middle English, 63,69,71,82,169,171,172,187,190,197,202,204,205,207,211,220,237,
 241–245,247,268,271,272,278,282,286,295,296,306,324,325,336,361,364
 Middle High German, 36
 Middle Low German, 36,170,174
 Midlands, 13,34,38,161,237,244,267,276
 Midwest, 351
 Milroy, J., 8,9
 Milroy, J., Milroy, L., 8,9
 Miracle Plays, 161,162,237,239
 modules, question, 7
 Moore, S., 1, 4, 13,173,241,243,245,271,326,334,335
 Moore, S. Meech, S. Whitehall, H. 13,38,78,98,101,105,107,131,268,360
 Mosse, 34,197
 Mustanoja, T., 196,210,282
 -ness, 269,271
 New England, 60,89,222,339,340
 New Jersey, 351
 New York City, 351
 <ng>, 34
 nominal function, 2
 nominal-verbal continuum, 12,13,32,223,224,228,230
 Norfolk, 81,232,236,267
 Norfolk Guilds, 26
 Northern Ireland, 18
 Norwegian, 77
 Norwich, 60,61
 Norwich Plays, 237,239
 N-Towne Plays, 237
 Observer's Paradox, 6,7
 Ohio, 351
 Old English, 69,72,82,165–174,180,183,185,188,190,191,198,201,204,166,205,
 207,208,210,212,213,218,241,242,243,244,247,250,252,260,269,270,271,
 272,278,282,286,292,295,296,297,302,303,306,310,314,315,318,321,324,326,
 331,333,350,364
 Old Franconian, 36
 Old French, 242
 Old Frisian, 36,174,197
 Old High German, 77,165,168,174
 Old Norse, 165,168,170,171,174
 Old Russian, 197
 Old Saxon, 36,174,197
 Old Slavonic, 197

Ontario, 351
 opacity, 323
 ordering, 147,148
 Ottawa, 18,21
 Ozona, 69
 paradigms, 245,260
 Pasadena, 351
 Paston Letters , 27,55,169,180,183,200,202,205,212–214,297,298,312
 Peacock, 213
 perceptual ambiguity, 277
 Philadelphia, 49,351
 Pickwick, 344
 Pierce, C., 334
 Portuguese, 88
 post-vocalic (r), 9
 Potter, S., 197
 Poutsma, H., 15,34,268
 prestige, 9
 Price, O., 337
 primary stress, 51,165,380,389
 Pro, 218
 Pro-form Do, 67,68,88,89
 progressive dissimilation, 42,48,49,157
 pseudonym, 91
 Punch, 338
 quantitative, 2,12,16,23,25,44,368
 quasi-continuum, 31
 Radford, A., 11,56,157
 ranking, 147,154,229
 realignment, 328
 re-analysis, syntactic, 11,13,161,162,266,323–326
 regressive assimilation, 19,42,48
 Reid, E., 3
 Reuland, E. 71
 Reverse Relation, 68
 Robinson, R., 269
 Rolls, R., 268
 Rooth, E., 1
 Ross, J., 11,12,15,31–33,57,62,64,68,70,120,121,130,157,259,332,
 362
 Ross's continuum, 57,62,320
 rural, 144
 -s, 362

Sankoff, D., 5
 Sankoff, G., 2,5,8,10,83,363
 Sanskrit, 197
 Saussure, F., 28
 Savannah, 351
 Scandanavian, 77
 Schachter, P., 15,28,29,71
 Scotland, 95,351
 Scots, 359
 secondary stress, 269,270,272
 Selkirk, E., 11,271,292,365
 sex, 16,98,101,108,140,145,220,247,251,355
 Sievers, E., 5
 Shakespeare, W., 171,197,341,342
 Shopen, T., 21
 Shuy, R., Wolram, W., Riley W., 2,3,15,19,21,48,97,156
 Skeat, W., 172
 Sketchley, A., 345
 social class, 83,98,144,355
 social network, 9
 social stratification, 16,27
 sociolinguistic variable, 88
 sound change, 16,36
 South, 351
 Southall, 69,95
 speech community, 3,4,8,9,12,16,18,21,24,42,78,80,94,97,101,103,
 145,353,354,355
 speech field, 8
 squish, 64,68
 S-structure, 291
 standardization of writing, 223,268
 stem, 242
 stereotype, social, 4,338,339,345,349,352,353,355,357
 stigmatization of in', 25,27
 Stolz W., Bils. G., 24,25
 stress , 21,22,35,52,88,181,182,278,279,281
 strong verbs, 243,244,271
 style, 98,126,91,354
 subjunctive, 243,244
 Suffolk, 87
 syncretism, 33,295,302,303,305,311,317,318,332
 style, 16
 Sturtevant, E., 1

subcategorization, 192,195
 Suffolk, 232,236,238,239,267
 Sweet, H., 219,286
 syllabic n, 140,148
 Tandberg, 379,381
 tape-recorded interviews, 88
 t/d deletion, 157
 Tarallo, F., 363
 tenseness, 156
 Texas, 22,24,149
 (th), 16
 Thompson, S., 15,71,257,259,306
 Toon, T., 7
 topic, 16
 Towneley Plays, 237
 transition problem, 2,3,363
 transparency principle, 323
 Traugott, E., 3,190,199,207,241
 Tregellas, J., 346
 Trevisa, 213,286
 triphthong, 52
 Trudgill, P., 3,10,15,83,86,97,98,144,355,390
 Trudgill, P., Hughes, A., 158
 turn-taking, 7
 Twist, Oliver, 197
 <um>, 252
 unbounded movement, 66
 -ung , 107,161,162,173,174,211,250,292,302
 Uniformitarian Principle, 49,50
 unstressed -ing, 51,173
 upper class, 357
 urban, 146
 Van der Gaaf, W., 39,40
 VARBRUL, 44,46,48
 Vedic, 197
 verbal function, 2,12
 vernacular, 5,6,7,81,339,340
 Verney Papers, 55,214
 Visser, F., 25,61,69,163,184,186,187,189,190,191,195,197,201,204,205,208,
 209,210,212,218,281,282,286,292,295,296,297,300,301,303,304,310,327,333,334,335
 vowel height, 12,13,49,141,143,147,148,151,156,273
 Vulgate, 41
 Wald, B. Shopen T., 3,18,97,355

Walker, 16,338
Wasow, T. Roeper, T., 28,44,62,71,123,158,257,306
weak nouns, 270
Weber, W., 40,41,69,185
Weekly, E., 169
Weinreich, U. Herzog, W. Labov, W., 3,49,336,363
West Texas, 80
WH-movement, 66,67,89
Whitehall, H., 1.13
Whitely, R., 344
Whiz Deletion, 71
Wolfram, W., Christian, 209,302,303,304
Woods, H., 3,15,21,48,50,139,144,355,390
working class, 84,91,144,215,276,349,356,357
Wright, J. 88
Wright J., Wright, E., 5
W-structure, 291
Wycliff, 40,286
Wyld, H. , 4,13,16,25,26,27,43,53,268,269,272,336,337,338,355
<yng> , 251,364
York, 268
York Plays, 237,239
Yorkshire, 351
Zee, E., 274,379,382,383,389