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Changes in Complementation in British and American English

Corpus-Based Studies on Non-Finite Complements in Recent English

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Changes in Complementation in British and American English

Corpus-Based Studies on Non-Finite Complements in Recent English

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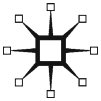

© Martti Juhani Rudanko 2011
Softcover reprint of the hardcover 1st edition 2011 978-0-230-53733-0

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First published 2011 by
PALGRAVE MACMILLAN

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Palgrave Macmillan in the US is a division of St Martin's Press LLC, 175 Fifth Avenue, New York, NY 10010.

Palgrave Macmillan is the global academic imprint of the above companies and has companies and representatives throughout the world.

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ISBN 978-1-349-35909-7 ISBN 978-0-230-30519-9 (eBook)
DOI 10.1057/9780230305199

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources. Logging, pulping and manufacturing processes are expected to conform to the environmental regulations of the country of origin.

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

A catalog record for this book is available from the Library of Congress.

10 9 8 7 6 5 4 3 2 1
20 19 18 17 16 15 14 13 12 11

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Acknowledgments

It is my pleasure to thank Palgrave Macmillan for including the present book in their series.

This book includes some material, slightly adapted, that was originally published in article form. Chapter 4 originally appeared in the *Journal of English Linguistics* volume 34, number 4, pages 312–331, published by SAGE, and Section 4 of Chapter 6 originally appeared in the *Journal of English Linguistics* volume 38, number 1, pages 4–24. Further, Section 5 and part of Section 6 of Chapter 6 originally appeared in *English Language and Linguistics* volume 10, number 1, pages 31–48, published by Cambridge University Press. I want to acknowledge my indebtedness to both journals and publishers for their policy of permitting the inclusion of these materials in a book consisting solely of the author's own work. I also want to express my thanks to Professor Magnus Huber of the University of Giessen for permitting me to include a chapter based on the Old Bailey Corpus in the present book. Finally, I am happy to acknowledge that material from the Bank of English/Collins WordbanksOnline Corpus has been reproduced with the kind permission of HarperCollins Publishers Ltd.

This book has been under way for some years, and I have been able to benefit from conversations on complementation with colleagues and friends at various conferences in recent years. I want to especially mention Günter Rohdenburg, Thomas Egan, Hubert Cuyckens, and Uwe Vosberg in this respect. At the University of Tampere I have been fortunate in being able to turn to Ian Gurney for his sagacious counsel in matters of English grammar and usage. In addition, Veera Peteri, my part-time assistant at the University of Tampere, saved me from many an inaccuracy while writing this book. To them all I want to express my thanks. At the same time, I want to note that none of the people mentioned above is in any way responsible for the shortcomings that remain in this book. Those are entirely my responsibility.

Tampere, September 2010

1
Introduction

The system of English predicate complementation has been the object of intensive investigation in the past few decades. Some of this work has been conducted within English linguistics, with an exclusive focus on the grammar of English, and some of it has been conducted in a broader context of general linguistics. Much of the work in both traditions of research has been based on the methodological perspective of introspection. For several decades, the predominance of this perspective, especially in the United States of America, has been influenced to a significant degree by the emphasis that Noam Chomsky has placed on it as the main, or indeed as the sole, source of data for linguistic analysis.

One of the first scholars critically to examine the exclusive and unquestioning reliance on introspection was Geoffrey Leech. In an article published as early as 1968, he identified three sources of data in the analysis of a language, numbering them (a), (b), and (c):

> (a) corpuses of utterances or texts which have actually occurred in that language; (b) the elicited reactions, verbal or otherwise, of speakers of the language; (c) the introspections of the analyst, when he is a speaker of the language. (Leech 1968, 88)

Leech went on to draw attention to the role that corpus evidence may have as a source of data. To counter the obvious objection that a corpus is always limited in size, Leech writes in part:

> ... whereas any corpus, however large, contains only an inconsiderable subset of the set of possible sentences of a language, this does not in any way diminish its importance as a tool of empirical

> confirmation: complete verifiability has long been acknowledged to be too high a goal in the testing of scientific theories. (1968, 94)

As far as the present author is concerned, there were two simple considerations, in the main, that drew him to using electronic corpora, starting in the late 1980s and early 1990s. First, the use of an electronic corpus often brings to light surprises and usages that would likely be overlooked if the investigator were relying solely or chiefly on elicitation or introspection. The second consideration is the authentic flavor of the material obtained from actual usage, as opposed to the artificiality of many sentences invented by those who do not choose to use electronic corpora.[1]

The first major corpora of English, the Lancaster-Oslo-Bergen (LOB) and Brown Corpora, covering British and American English in 1961, were already in existence by 1968. However, it is only since personal computers became widely available in the 1980s and 1990s that corpus-based work on English has started to flourish. Even during this later period, there has existed a transatlantic divide in approach in that in Europe corpus-based work has tended to be considerably more prominent than in the United States.

A boost was given to corpus-based work by the creation of the British National Corpus (BNC) in the late 1990s. At about the same time, early versions of the Bank of English Corpus began to be available, further stimulating corpus-based work. Today, the Bank of English Corpus has grown to over 500 million words, and it is a versatile corpus because it contains large segments representing different text types. The Bank of English Corpus is used in this book,[2] alongside other major corpora mentioned below in connection with the individual chapters.

This study offers a corpus-based perspective on some central aspects of the system of English predicate complementation. A number of patterns are identified and investigated in the individual chapters. In every chapter there is a focus on recent or on-going variation and change in the system of the language and on principles that can be invoked to explain such variation and change.

In Chapters 2 through 4, the focus is on the preposition *into* as it is found in what is termed the transitive *into -ing* pattern, as in sentence (1), modified from an authentic sentence in the Bank of English Corpus:

(1) They fooled him into believing he was fast enough.

The transitive *into -ing* pattern was originally "discovered" for systematic analysis by Francis et al. (1996), Hunston and Francis (2000), and Rudanko (2000). Several other corpus-based studies have followed in the past ten years, on different aspects of the pattern. One of these aspects is the property that there is a dependency or correlation between the choice of the matrix verb, *fool* in (1), and the type of predicate in the sentential complement. This perspective of investigation was opened, as far as the present author is aware, by Rudanko (2000, 84), who pointed out on the basis of an investigation of the BNC that a lower predicate of the type of *believe* or *think*, with an Experiencer subject, strongly prefers a matrix verb expressing deception. Sentence (1) is a case in point, where *fool* expresses deception. By contrast, as was also pointed out in Rudanko (2000, 84), when the matrix verb expresses force or pressure, the lower verb tends to be more agentive, to the extent that even the verb *think*, which often selects an Experiencer subject, tends to have a more agentive interpretation, as for instance in ... *the drug makers were pushed into thinking about export markets* (BNC, ARF 2341).[3] Dependencies of this type have been investigated in later work more extensively by Gries and Stefanowitsch (2003) and Stefanowitsch and Gries (2005, 11–14), among others.

In general, head complement relations are characterized by locality. This means that a head and its complement or complements are not separated by intervening levels of structure. Further, saying that a head selects its complement or complements means that a head selects the head of each complement. In the case of the transitive *into -ing* pattern, this means for sentence (1) that the matrix verb *fool* selects the following NP, *him*, and the *into* clause and its head, the preposition *into*. However, the correlation observed in the previous paragraph between the matrix verb and the lower verb transcends such locality, making the transitive *into -ing* pattern a fascinating subject for investigation.

Chapter 2 identifies the transitive *into -ing* pattern for investigation, and examines the issue of correlation in recent English. The investigation draws on four corpora of recent English. Two of these, a British English Corpus and an American English corpus, are based on the Corpus of English Novels, the CEN, which has been developed at the Catholic University of Leuven in Belgium by Hendrik de Smet and others. The CEN represents English during the period 1880–1922. Work on the transitive *into -ing* pattern so far has focused on current English, and the inclusion of material from the CEN brings a novel perspective to the study of the pattern.

For present-day English, the chapter draws on the UK Books and US Books components of the Collins Cobuild Demonstration Corpus. From the point of view of text type, these are the closest equivalents to the parts of the CEN corpora.

In the case of each corpus, the matrix verbs selecting the transitive *into -ing* pattern are identified, and it is argued that semantic characterizations can be given for such verbs, in the spirit of Rudanko (1989, 1996) and Hunston and Francis (2000). In addition, it is pointed out that correlations between matrix verbs and lower predicates should be approached from the point of view of the semantic structure of the higher verb.

The chapter also raises the question of the syntactic properties of matrix verbs selecting the pattern, and makes the proposal that the framework of construction grammar, as developed by Adele Goldberg in Goldberg (1995) and later work, offers a suitable model for the analysis of the transitive *into -ing* pattern. In particular, it is argued that the pattern should be viewed as a subtype of the caused motion construction.

Another line of investigation relating to the transitive *into -ing* pattern in the present volume concerns the high degree of productivity of the pattern. This feature of the pattern was also remarked on and illustrated in Rudanko (2000), relying on the BNC. In a similar vein, Hunston and Francis (2000, 103) raised the "question of whether there are any limits to the creativity of speakers" in the use of the pattern. Later work following this line of investigation includes Rudanko (2005), and Chapters 3 and 4 of the present volume are further contributions.

Rudanko (2005) examined innovative matrix verbs selecting the transitive *into -ing* pattern in the text types of newspaper English and of spoken English. Chapter 3 of the present volume inquires into the nature of innovative matrix verbs in five large parts of the Bank of English Corpus, paying attention to both British and American English. These include the British and American Books corpora, each of which is over 50 million words in size, supplemented by British and American English newspaper corpora and the British English Magazines Corpus.

Chapter 3 seeks to identify innovative usages on the basis of the large corpora listed. From a semantic point of view, it also sheds light on the nature of higher verbs in innovative usage. The framework that provides the theoretical underpinning for the investigation is again Adele Goldberg's theory of construction grammar, and the chapter constitutes a case study on the suitability of this model as a framework to explain the innovative usages encountered.

Chapter 4 takes up another aspect of on-going grammatical change relating to the transitive *into -ing* pattern. It has been pointed out repeatedly in studies on the pattern that matrix verbs selecting it express causation, and further, that the causation is "colored" or "flavored" in some way, where the coloring expresses the means or manner of causation. For instance, in the case of sentence (1) the matrix verb expresses a notion of deception. However, it is pointed out in Chapter 4 that the transitive *into -ing* pattern is currently in the process of spreading beyond verbs expressing specified causation to verbs that express causation that is neutral or unflavored with respect to means or to manner. For instance, consider *induce*, as in (2), again from the Bank of English Corpus:

(2) ... we don't need to induce them into buying things. (British News)

The chapter examines the incidence of several "neutral" verbs of the type of *induce* in both British and American English. Again, the data come from large segments of the Bank of English Corpus, and the corpora from the two regional varieties have been chosen to match each other. These are the British and American News, British and American Books and the British and American Spoken Corpora.

One specific question investigated is whether it is British or American English that is in the lead as regards the spread of the pattern. Further, the use of corpora representing different text types makes it possible to examine the spread of the pattern in relation to text type.

Chapter 5 takes up the complex preposition *out of* in a pattern that is in a way a parallel to the transitive *into -ing* pattern investigated in Chapters 2 through 4. For instance, consider sentence (3), again from the Bank of English Corpus:

(3) ... his friends and family talked him out of leaving the sport. (Bank of English)

The pattern of sentence (3) is termed the transitive *out of -ing* pattern. Chapter 5 examines the incidence of the pattern in recent and current English. The pattern has often been neglected in work on English, and the focus here is on identifying and analyzing the set of matrix verbs that select the pattern. It turns out that the pattern is much less frequent in English predicate complementation than the transitive *into -ing* pattern. The *TIME* Corpus and a major part of COCA, the Corpus of Contemporary American English, are drawn upon for data for American English, and the BNC is consulted for British English.

Chapters 2 through 5 are "pattern-based" in their point of departure: the investigation primarily proceeds from a structural pattern of English to the identification of matrix verbs that select the pattern and to the discussion of such matrix verbs.

It is also possible to investigate complementation and changes in complementation by proceeding from individual matrix predicates to the identification of the types of complementation patterns that they select. This perspective may be termed "head-based." It typically leads to the syntactic and semantic comparison of the different types of complements and to the consideration of the factors affecting the choice of complement. Chapters 6 through 8 adopt the head-based perspective in the study of the system of English predicate complementation.

In Chapter 6, the focus is on the adjective *accustomed* and its sentential complementation in the past three centuries. For instance, consider sentence (4):

(4) ...they are not accustomed to winning on the road... (*Times*, Bank of English)

In current English the adjective *accustomed* commonly selects what is termed the *to -ing* pattern as its complement, as in sentence (4). However, the chapter examines the recent history of the adjective, and it is shown that *to* infinitive complements, of the type ...*accustomed to win on the road*..., are likewise attested with the adjective.

It is suggested that one important time in the investigation of the patterns of *accustomed* involves the years around 1900. Among the electronic corpora used are again the British English and American English parts of the CEN, and Chapter 6 offers a new window on change in progress relating to a core part of the system of English predicate complementation. A number of potential explanatory principles that may have affected the change are identified, and their potential impact is assessed in the light of the corpus, taking both British English and American English into account.

Following an investigation of the CEN, the chapter turns to an in-depth study of the sentential complements of *accustomed* in the 1930s, 1940s, and 1950s on the basis of the *TIME* Corpus. This corpus is well suited for the study of on-going grammatical variation and change.

Chapter 6 also offers an inquiry into the sentential complementation patterns of the adjective *accustomed* in current English, on the basis of large subcorpora of the Bank of English Corpus, with both British English and American English taken into account.

Chapter 7 takes up the verb *object*, as in (5).

(5) They objected to granting an export licence ... (British News, Bank of English)

Today, a sentential complement of the verb *object* is regularly of the *to -ing* type, and a *to* infinitive complement, of the type **They objected to grant an export licence ...*, would normally be considered ill formed with the matrix verb *object* in present-day English. However, it is observed in the chapter that *to* infinitives were frequently found with *object* in relatively recent English, and the chapter examines the recent history of the verb, focusing on the variation encountered in authentic corpus material and on principles to explain the variation. In this case the database drawn upon is the Old Bailey Corpus. The corpus, consisting of authentic trial transcripts from the Old Bailey, offers an approximation to spoken English, and the verb is relatively frequent in the data.

Finally, Chapter 8 takes up an innovative verbal pattern of another type. Consider the verb *commit* as in (6):

(6) ... parents had to commit to helping their children with homework ... (US News, Bank of English)

In (6) the verb *commit* is found intransitively with a sentential complement introduced by the word *to*. The chapter examines complementation patterns involving the reflexive verb *commit oneself* and the intransitive variant *commit*, as in sentence (6), in recent times, in order to shed light on change and variation in current English, with the focus on the intransitive variant.

It is clear from this introduction to the contents of the present volume that a common theme underlying this work is the study of the system of English sentential complementation. With respect to such complementation the present author adopts a particular approach that should be pointed out here. This is that sentential complements involve understood subjects. Such an assumption was made by several traditional grammarians. For instance, Otto Jespersen, employing the term "gerund" for the *-ing* clause in a sentence such as (1), wrote:

> Very often a gerund stands alone without any subject, but as in other nexuses (nexus-substantives, infinitives, etc.) the connexion of a subject with the verbal idea is always implied. (Jespersen [1940] 1961, 140)

The assumption that understood or covert subjects are found in *-ing* clauses and with infinitives lacking overt subjects is also made in many modern treatments, including Chomsky (1986, 114–131) and Huddleston and Pullum (2002, 1193).

The assumption of understood subjects is controversial for some linguists today, but the present author chooses to make it for a number of reasons, apart from an appeal to the authority of traditional and more modern work on the structure of English. It may be pointed out that with the help of an understood subject it is easy to represent the argument structures of the lower sentences in (1) through (6), and in each case the understood subject is the subject argument of the lower verb.

With the help of understood subjects it is also possible to characterize the structures investigated in this volume in an economical and straightforward way. For instance, with respect to a sentence of the type of (1), which is of the form *They fooled him into believing something*, it is possible to say that the understood subject of the lower verb, *believe*, is coreferential with the object of the matrix verb.

It may also be observed that the higher verb assigns a semantic role to its subject in the pattern of (1), and indeed in the other patterns of sentential complementation that are the focus of investigation in this volume. The patterns in question are control patterns. (See Chapter 2 for further discussion of control.) Given the postulation of an understood subject in sentence (1), it is possible to say that the structure is one of object control. (In this pattern the higher verb also selects an object, and assigns a semantic role to it.) On the other hand, in a sentence of the type of (4), for instance, it is possible to say that the understood subject is coreferential with the higher subject, and, again given that the higher predicate, *accustomed* in the case of (4), assigns a semantic role to its subject, it is possible to say further that the structure is one of subject control.

As regards phrase structure representations, the present author shuns a number of projections, of the type of AgrS or AgrO, for instance, found in some work, as over-elaborate for the purposes of the present investigation, which is focused on argument structure. At the same time, it is important in a corpus-based study not to succumb to what Christian Mair has called "data-driven positivism with counting as its only methodology" (2002, 209). Instead, it is desirable to take analytic concepts from theoretical linguistics into account, including the concept of an understood subject. Further, while over-elaborate projections can be avoided in the study of argument structure, it is still desirable to offer explicit structural representations of the patterns discussed, for such a policy is well suited to contribute toward methodological rigor in a

corpus-based study. This policy is followed in the individual chapters of the present study.

To conclude this introductory chapter, it is worth noting a methodological point relating to abstractness and generality made by Leech et al.:

> If we decide to focus on a specific non-finite complement structure – such as, say, the *to*-infinitival clause or the gerund with possessive/genitive modifier – we will find these structures serving a large variety of functions, with most of them not being involved in current diachronic change. If, on the other hand, we decide to focus on more specific constructions – combinations of particular superordinate predicates and particular patterns of complementation (such as, for example, variation between infinitives and gerunds with *accustomed to*) – we can easily home in on areas of ongoing diachronic change, without, however, being able to correlate individual shifts in usage preferences with general trends in the evolution of the system of English non-finite verbal forms. (2009, 181)

This book focuses on constructions where the sentential complement is selected by a head in the higher clause, and several chapters have a focus on a specific higher predicate that has undergone a change in its argument selection properties in the general context of what has come to be called the Great Complement Shift (Rohdenburg 2006; Vosberg 2006). However, by examining individual higher predicates, this book also aims to identify general principles that can be used to explain variation and change in the system of English predicate complementation. In this way the study of individual constructions with specific higher predicates may shed fresh light on general trends affecting the evolution of the system of English predicate complementation.

2
On a Class of Resultatives in Recent English

1 Introduction

Consider sentence (1):

(1) I had pestered my father ... into letting me create a small conifer and heather garden ... (British Books, Bank of English)

In (1), the matrix verb is *pester*, and it selects three arguments. The first is the subject of the matrix clause, the NP *I*, the second the direct object, the NP *my father*, and the third the prepositional complement *into letting me create a small conifer and heather garden*. The pattern of (1) is here called the transitive *into -ing* pattern.

It is assumed here, for reasons given in Chapter 1, that the prepositional phrase argument, introduced by *into*, is sentential, with its own understood subject.

Regarding the argument structure properties of the higher verb *pester*, it is also clear that it assigns a semantic role, that of Agent, to its subject NP *I*. This is obvious, for instance, because an idiom chunk would be impossible in the subject position of (1). (For the relevance of idiom chunks in the present context, see Soames and Perlmutter 1979, 106–109, 195–199; Davies and Dubinsky 2004, 8.) Further, the verb *pester* assigns a semantic role, that of Patient or Undergoer, to its direct object, *my father*, in (1). Given the argument structure properties of the matrix verb, the structure in question is therefore one of control. In current work the understood subject in control structures is generally represented by the symbol PRO, and this practice is adopted here. In the pattern of (1), PRO is controlled by the higher object, and the pattern is thus one of object control.

It is also assumed here that the sentential complement in (1) is a nominal clause, to use a term from traditional grammar, including Quirk et al. (1985). A nominal clause is here represented as a sentence dominated by an NP. On the other hand, more elaborate projections found in some fairly recent work, including AgrO, are not used in this study.

With the assumptions made, it is possible to represent sentence (1) in its essentials as in structure (1′):

(1′) $[[I]_{NP1}$ $[pestered]_{Verb1}$ $[my\ father]_{NP0}$ $[[into]_{Prep}$ $[[[PRO]_{NP2}$ $[[letting]_{Verb2}$ me create a small conifer and heather garden ... $]_{VP}]_{S2}]_{NP}]_{PP}]_{S1}$

The pattern of (1) involves object control, and it should be distinguished from patterns involving *into -ing* complements that display subject control. Here is an illustration of the latter type of control:

(2) ... we'll look into repairing it in the morning. (British Books, Bank of English)

Sentence (2) has a sentential complement, and the lower clause has its understood subject, represented by the same symbol PRO. However, in the case of (2), PRO is controlled by the matrix subject. In (2), the matrix verb *look* takes only two arguments, and there is no matrix object.

The type of subject control in (2) is easy to distinguish from the object control structure of sentence (1). There is another type of construction involving subject control that is less easy to distinguish from (1). Consider (3):

(3) I wish you'd put a little effort into being in charge. (British Books, Bank of English)

Put is a transitive verb, and it takes three arguments, as in sentence (3). Setting *I wish* aside as irrelevant here, sentence (3) is similar to sentence (1) as regards its sequence of constituents, and it also has a prepositional *into -ing* complement. However, the understood subject of the lower clause under *put* in (3) is not controlled by the object NP *a little effort*, for sentence (3) does not express the proposition that it is a little effort that should be in charge. Instead, the understood subject is controlled by the higher subject, and sentence (3) means something like "you should put in a little effort so that you might be in charge." In this kind of construction the direct object NP of the higher clause typically denotes some resource that is at the disposal of the referent of

the higher subject, and the matrix verb expresses the notion of dedication: the referent of the higher subject dedicates or devotes the resource to what is encoded by the lower clause. The type of sentence exhibits subject control and can be set aside here.

Subject control constructions deserve attention, but they are excluded from further consideration here, and the term "transitive *into -ing* pattern" is reserved for the object control pattern.

On the other hand, it should be noted that the relevant object control pattern is often found in the passive voice, and such passives are included in this treatment. For instance, consider (4):

(4) ...I was being conned into studying the terrain. (British Books, Bank of English)

In such passives the argument corresponding to the active subject argument is often suppressed, as in (4), but the construction is still relevant for present purposes.

It should also be pointed out that while sentence (1) exemplifies the canonical word order of arguments, there are syntactic operations in English that change the canonical order. For instance, consider sentence (5):

(5) Next morning I had three jobs. First was Liz, chatty antiques dealeress from Dragonsdale that I was conning into selling me those lovely nipple drops... (British Books, Bank of English)

Relativization, if it is conceived of as a movement rule, has moved the direct object of *con* in (5) to the left, with the relative pronoun representing the element moved, or the filler in the resulting filler gap dependency. Such constructions are of course relevant when studying the argument structure properties of verbs selecting the transitive *into -ing* pattern.

From a semantic point of view, the transitive *into -ing* pattern conforms well to the characterization of the meaning that is typically associated with object control. Probably the best and most succinct characterization of the semantics of matrix verbs associated with object control has been given by Sag and Pollard. They write:

> The semantics of all verbs in this class [of verbs involving object control] thus involves a soa [state of affairs] whose relation is of the INFLUENCE type. With respect to such soas, we may identify three

> semantic roles, which we will refer to as INFLUENCE (the possibly agentive influencer), INFLUENCED (the typically animate participant influenced by the influence) and SOA-ARG (the action that the influenced participant is influenced to perform, or, in the case of verbs like *prevent* and *forbid,* NOT to perform). [footnote omitted] (1991, 66)

Here the more traditional labels of Agent (or Instrument), Undergoer (or Patient), and Goal are used for the three semantic roles in question, but the notion of influencing is important to the semantic characterization of the transitive *into -ing* pattern, and Sag and Pollard's characterizations are helpful in understanding the semantic relations involved.[1]

It may be added that the transitive *into -ing* construction with its Goal argument typically expresses accomplishment: the construction not only conveys the idea that the referent of the higher subject moves the referent of the higher object from one state of affairs toward the state of affairs expressed by the lower clause, but that the new state of affairs is actually reached. To put it another way, "the movement from the first state to the second involves actual penetration of the second" (Rudanko 2000, 77). For instance, the truth of sentence (1), with the matrix verb *pester*, entails that the referent of PRO, coreferential with the referent of the higher object, *my father*, did let the referent of *me* create a small conifer and heather garden. In this respect the *into -ing* pattern is more specific than the object control pattern with *to* infinitive complements, for, in the case of the latter, the entailment property may or may not hold. It holds for instance with *embolden* and *persuade*, as in (6a–b):

(6) (a) This incident emboldened the Sun to publish a false story which claimed that ... (Bank of English, British National Newspapers)
(b) ... one caricaturist who persuaded Mandelson to autograph his own drawing, depicting the Minister without Portfolio ... (Bank of English, British National Newspapers)

The truth of (6b), for instance, entails that Mandelson did autograph his own drawing.

However, depending on the matrix verb, the entailment property may not necessarily hold in the case of *to* infinitive complements. To illustrate, consider the matrix verb *pressure*, which selects both types of complements, as in (7a–b), from the Bank of English Corpus:

(7) (a) He lost touch with his parents, who had pressured him to join the family business, and only his horrific crash in 1976 prompted

a thawing of the frostiness between them. (British National Newspapers)

(b) ...the government's exams watchdog, the qualifications and curriculum authority, had pressured individual boards into manipulating grades. (British National Newspapers)

The entailment property holds in (7b), but not in (7a). The notion of accomplishment inherent in the *into -ing* pattern makes the construction telic in nature. For its part, the *to* infinitival construction may be telic or atelic (Rudanko 2003).

It is worth adding that the *into -ing* pattern also differs from the non-sentential transitive "Verb NP *into* NP" pattern in a similar way. This pattern is often possible with verbs that select the transitive *into -ing* pattern. For instance, *con* selects it in the Collins Cobuild Demonstration Corpus, as in (8):

(8) Well I got conned into this you see... (Spoken British English, Bank of English)

The use of *con* in (8) does appear to carry the entailment property, but there are matrix verbs with *into* NP complements such that this is not the case. For instance, *He urged them into the room* does not entail that they went into the room, for it is not a contradiction to say *He urged them into the room but they did not go into the room*.

The meaning of the *into -ing* pattern is thus delimited both in relation to the meaning of the corresponding *to* infinitive pattern involving object control and in relation to the meaning of the transitive non-sentential pattern involving the preposition *into*. The specific meaning of the *into -ing* pattern is one reason for selecting it for study. Given that the pattern expresses movement from one state of affairs into another, the term "resultative" may be applied to it.

The purpose of this chapter is to examine the incidence and the nature of the transitive *into -ing* pattern in recent English, with evidence coming primarily from electronic corpora. Four corpora are consulted, two diachronic, two for current English.

The two diachronic corpora are segments of the Corpus of English Novels, the CEN. The CEN is over 20 million words in size from the period 1880–1922. It includes material from British English, American English, and Irish English, and from some authors whose language is not easy to classify, for instance, because they moved between Britain and America. For present purposes, there is a focus on British English

and American English. In order to study these, two corpora were formed, consisting of material written by authors whose language can be classified in these terms. The size of the corpus for British English is 12.3 million words, and the size of the American English corpus is 5.9 million words.

The two synchronic corpora are the British Books and United States Books parts of the Collins Cobuild Demonstration Corpus. The former is a corpus of 5.5 million words and the latter is one of 5.6 million words.

The two sets of corpora are not as precisely identical with respect to their composition and text type as would be the case in a comparison of corresponding text types, for instance, in the LOB and the Freiburg-LOB (FLOB) Corpora. However, the investigator is constrained by the availability of larger electronic corpora, especially in the case of historical material, and while the Books segments of the Collins Cobuild Demonstration Corpus contain both fiction and non-fiction, they are the closest equivalents of the CEN among the segments of the newer corpus, and were therefore chosen for the present study.

The objective of the study is first to identify the matrix verbs that select the transitive *into -ing* pattern in the two corpora, with each corpus considered in turn. Numerical information is provided on the frequency of the pattern in the two corpora, with figures normalized per one million words to make comparison possible. It may be hoped that the information will shed light on the question of whether the pattern may have become more frequent in the language, taking both British and American English into account.

This chapter also has objectives that are more qualitative in nature. It is observed in sentence (1) that the matrix verb *pester* has a negative feel to it, and it has been suggested in the literature that the transitive *into -ing* pattern is associated with negative overtones. For instance, Hunston and Francis (2000, 104) suggest that when verbs that are not normally negative, including *debate*, are found with the *into -ing* pattern, there tend to be negative overtones present, such as implications of futility or lack of success, in the larger context associated with the use of the matrix verbs. Similarly, Wulff et al. (2007, 274) suggest that while verbs that "generally have a neutral or even positive connotation" can be found with the pattern, they "are not to be interpreted in the default senses" when combined with the pattern. Instead, in such usages "senses have been selected which allow for a negative interpretation, mostly involving effort" (Wulff et al. 2007, 274–275).

Both Hunston and Francis (2000) and Wulff et al. (2007) are synchronic studies of current English. The four corpora considered here

can be expected to shed more light on the question of the negative overtones of the transitive *into -ing* pattern, taking the recent history of the language into account.

Another objective of the investigation is to examine the types of matrix verbs encountered from a syntactic point of view and to consider them from the point of view of a specific theoretical framework. The framework to be considered is the model of construction grammar as developed by Adele Goldberg.[2]

A further step of the investigation is to provide semantic characterizations of different types of matrix verbs found in the two corpora. That is, an attempt is made to go beyond the Sag and Pollard type general definition of the semantics of object control verbs toward more specific characterizations of the classes of verbs involved. The characterizations, it is hoped, shed light on the character of the pattern from a semantic point of view and on the question of whether the nature of the pattern might have undergone change in recent times.

Still another step is to examine the semantic classes identified in order to see whether there are verbs in English that appear to be similar to the verbs of one particular class but are not found with the transitive *into -ing* pattern, and in fact are inconceivable with the pattern. One concrete case is discussed.

2 Results and illustrations

Turning to the transitive *into -ing* pattern in the CEN, the procedure when gathering data was to employ a MonoConc search (see Reppen 2001) of the British English part of the corpus, with the search string *into *ing*. Because the *-ing* clause regularly follows the preposition *into* in the pattern and insertions appear to be very rare between the two elements, the search string can be expected to provide comprehensive results and is thus appropriate from the point of view of recall. (See Ball 1994 on issues of recall.)

The search string yielded 307 hits in the corpus. Despite the specific search string, there were quite a number of irrelevant tokens among the hits. These were of different types. The diachronic corpus is not tagged, and a number of irrelevant hits reflected this property of the corpus. For instance, consider (9a–c):

(9) (a) ... Olly was eagerly wandering round the room, spying into everything, and longing to touch this, that, and the other ... (1881, Humphry Ward, *Milly and Olly*)

(b) ...trying no longer to conceal her sorrow at her lover's relapse into drinking habits, she laid her head on Rotha's breast and wept outright. (1885, Hall Caine, *The Shadow of a Crime*)
(c) ...faces degraded into something less than human. (1886, George Gissing, *Demos*)

Sentences of the type of (9a–c) do not represent the transitive *into -ing* pattern, and can be dismissed without further comment.

There are also subject control constructions in the material retrieved with the search string, and they can be set aside. Here is an illustration:

(10) ...and she burst into weeping. (1901, Henry Rider Haggard, *Lysbeth*)

In addition, consider the combination *bring* NP *into being*, as in (11):

(11) Think of the great change that brought this English Church into being! (1911, Humphry Ward, *The Case of Richard Meynell*)

While there is some scope for varying the matrix verb in this combination, the construction is still in the nature of a fixed phrase and omitted for that reason. Another reason for excluding this combination is that the semantic notion of influencing does not seem relevant to the present case.

In addition, there is a question that arises in the case of a particular set of *bona fide* tokens of the transitive *into -ing* pattern: how to deal with coordination, as in (12):

(12) What the deuce! does the fellow suppose he can persuade me or badger me into doing what I've no mind to do? (1890, George Gissing, *The Emancipated*)

The question is whether to count both matrix verbs, *persuade* and *badger* in the case of (12), or only the one closest to the complement. To err on the side of caution, the latter choice is made, so as not to exaggerate the number of tokens selecting the pattern. There may perhaps also be some feeling that the choice of complement may be more closely connected to the nearest matrix verb than to one further away, though this must remain a speculation and an invitation for further work on the question. In the present case *badger* is included, but *persuade* is not. A conceivable exception to this procedure would be the case in which

the two verbs form a closely knit unit, as for instance in *wine and dine someone into doing something*, but there were none of these in the historical material.

With the omissions performed, there are 93 tokens that are relevant. This amounts to a frequency of 7.6 per million words.

Table 2.1 is a list of the matrix verbs encountered, with an indication of the frequency of each verb.

Table 2.1 Frequencies of matrix verbs selecting the transitive *into -ing* pattern in the British English part of the CEN

Frequency	Verbs
9	*frighten*
7	*deceive*
6	*drive*
5	*lure*
4	*cheat, persuade*
3	*beguile, delude, provoke, trick*
2	*bribe, cajole, coerce, fascinate, irritate, lead, trap*
1	*astonish, badger, betray, carry away, coax, constrain, draw, dupe, egg, exasperate, flatter, fool, force, goad, gull, harass, horrify, hush, laugh, madden, oppress, shame, startle, stir, surprise, talk, talk over, tempt, terrify, throw, weary, whip*

Examining the lists of matrix verbs, the analyst is struck by the negative flavor of many of the verbs. *Deceive*, *frighten*, *lure*, *cheat*, *beguile*, *delude*, and *trick* from among the more frequent verbs are such verbs. It is thus no wonder that the *into -ing* pattern has been associated, even as a construction, with a negative flavor in the literature.

When providing illustrations, it is appropriate to keep the negative flavor of many of the verbs in mind. Here are some illustrations of verbs selecting the pattern, with the emphasis in (13a–g) on verbs that are not inherently negative in flavor, in order to probe the possibility of non-negative uses of the pattern, and with (13h–j) illustrating verbs that tend to have an inherently negative flavor:

(13) (a) Well, I don't see why we shouldn't get her to talk him over into letting you keep your money, or a good part of it. (1886, George Gissing, *Demos*)

(b) Not once, but again and again, did the chill of terror pass through her whole frame. She caught a passing glimpse of her

image in the glass, and was fascinated into regarding it closely. (1888, George Gissing, *A Life's Morning*)

(c) It is so difficult for such a girl to understand her own emotions. Her parents persuaded her into wedding Palmer. That was all gone into the past, and now his concern – their concern – was only with the blessed future. (1892, George Gissing, *Born in Exile*)

(d) ... at the first word of a man who was carried away by his own vanity into thinking things that he had no business to think. (1894, Henry Seton Merriman, *With Edged Tools*)

(e) ... I, in defending myself, have been led, I admit it, into taking liberties. There is no way out of it. I shall, of course, leave you tomorrow ... (1903, Humphry Ward, *Lady Rose's Daughter*)

(f) She may laugh herself black in the face, but she won't laugh me into thinking what I knows to be far otherwise. (1906, Edith Nesbit, *The Incomplete Amorist*)

(g) Mary half laughed, half coaxed her into coming with them. But she went very unwillingly; fell completely silent and ... (1911, Humphry Ward, *The Case of Richard Meynell*)

(h) The gods never take back their gifts; we wearied them with our prayers into granting us this one, and now they sit in the clouds and mock us. (1884, George Gissing, *The Unclassed*)

(i) Augusta was, not unnaturally, almost horrified into following the figure's example, when suddenly growing faint or from some other cause, it loosed its hold and rolled into the scuppers, ... (1888, Henry Rider Haggard, *Mr Meeson's Will*)

(j) ... he almost resented this evidence of happiness; to him, only just recovering from a shock which would leave its mark upon his life to the end, his youth wronged by bitter necessities, forced into brooding over problems of ill when nature would have bidden him enjoy, it seemed for the moment a sign of shallowness that Jane could look and speak cheerfully. (1889, George Gissing, *The Nether World*)

Even in illustrations (13a–g), selected to probe the possibility of positive uses, it is not easy to find tokens that are unambiguously positive in flavor. The negative associations are clear, for instance, in the case of (13d), (13e), and (13g). In one or two of the other instances, including (13b), it is harder to judge one way or another, but for the most part the negative associations of the transitive *into -ing* pattern seem inescapable in the diachronic material. In most cases such associations are indeed inherent in the literal uses of matrix verbs.

Another interesting property of the matrix verbs listed is that syntactically they are of different types. In the transitive *into -ing* pattern they of course select three arguments, and some of the verbs have independent uses with three arguments, where the third argument is also sentential but a *to* infinitive. *Force* and *persuade* are of this first type, as in (14a–b):

(14) (a) ... the political necessities which forced him to marry a daughter of the House of Würtemberg ... (1884, Humphry Ward, *Miss Bretherton*)
(b) He would have persuaded her to go to bed, but ... (1886, George Gissing, *Demos*)

It is observed that the semantic roles of the three arguments of the matrix verbs in (14a–b) are Agent, Undergoer or Patient, and Goal, and that they thus closely parallel the semantic roles found when the verbs occur with *into -ing* complements.

Many of the other verbs listed as selecting the transitive *into -ing* pattern also allow uses as verbs selecting two arguments, where the second argument is a direct object with the semantic role of Undergoer or Patient, as in the transitive *into -ing* pattern. Indeed such uses with two arguments are often more frequent than uses involving the transitive *into -ing* pattern, where the verb selects three arguments. *Horrify*, *trick*, *cheat*, and *shame* are among verbs of this type, and some illustrations, from the present database, of these verbs with two arguments are given in (15a–c):

(15) (a) Could she have seen her face, its look of vulgar abandonment would have horrified her. (1894, George Gissing, *In the Year of Jubilee*)
(b) But I thought he had tricked me, I thought he had cheated me, I thought that this was his work, ... (1898, Stanley John Weyman, *The Castle Inn*)
(c) The girl's courage shamed him, and he obeyed her instructions as best he could. (1890, Henry Rider Haggard, *Beatrice*)

There are two other verbs in the list that often have intransitive uses. These are *laugh* (recall (13f) for its use with *into -ing*) and *talk* (recall (13a) for its use with *into -ing*). Of these, *laugh* is found with *at* NP phrases, which may be interpreted as complements, as in (16a), and *talk* permits two-argument uses in the diachronic data, as in (16b).

(16) (a) "Well, I laughed at this story at the time, though ... (1885, Henry Rider Haggard, *King Solomon's Mines*)

(b) ... they had talked business for a few minutes. (1888, Humphry Ward, *Robert Elsmere*)

However, in neither of (16a–b) does the complement carry the Undergoer role; instead it is a Theme, expressing the content of what was laughed at or talked about. The uses of (16a–b) are thus different from the use of the verbs with the transitive *into -ing* pattern.

The discussion suggests that verbs found with the transitive *into -ing* pattern are of different syntactic types. The three types described may be summed up under the *force*, *horrify*, and *laugh* labels.

3 The transitive *into -ing* pattern as a caused motion construction

It is proposed here that in order to account for the occurrence of the transitive *into -ing* pattern with the three different types of matrix verbs identified in Section 2, it is helpful to consider the pattern a construction in the sense of Adele Goldberg's work. As she puts it:

> ... basic sentences of English are instances of constructions – form-meaning correspondences that exist independently of particular verbs. That is, it is argued that constructions themselves carry meaning, independently of the words in the sentence. (1995, 1)

Constructions are thus "conventionalized pairings of form and function" or "learned pairings of form and semantic or discourse function" (Goldberg 2006, 3–5). More specifically, the argument structure construction that is relevant to the transitive *into -ing* pattern is the caused motion construction, which may be seen as a subtype of the resultative construction.

The structural configuration of the caused motion construction is of the type of (17):

(17) [SUBJ] [V OBJ OBL]

In (17) "V is a nonstative verb and OBL is a directional phrase" (Goldberg 1995, 152).

Goldberg links the caused motion construction to a number of related senses. The first of these is "X causes Y to move Z" (Goldberg 2005, 161). It is suggested here that it is with this simple and basic sense that the transitive *into -ing* pattern is associated.

Applying the view that the transitive *into -ing* pattern represents a type of the caused motion construction to the verbs listed in Table 2.1,

it is helpful to keep in mind the syntactic distinction made above relating to the three types of matrix verbs. As noted, the first type is that of *force*. This verb has a number of senses, but the sense that is of relevance here is "to drive (a person, etc.) *to* or *into* (a course of action, a condition)" (*OED*, part of sense 4.a).[3] An illustration of the use of *force* with the transitive *into -ing* pattern was given in (13j), and it is essentially of the type of *Something forced him into brooding over problems of ill*. When this type of usage is viewed as an instance of the caused motion construction, it is possible to say that the participant roles of *force* are Forcer, Forced, and Action. (On the notion of participant roles, which are verb specific in nature, see Goldberg 1995, 43.) These participant roles are then matched with the argument roles of the caused motion construction, Agent, Patient, and Goal.

Turning to the second syntactic type, that of *horrify*, the token of it in the corpus, given as (13i), may be simplified into (18).

(18) Someone almost horrified Augusta into following the example.

When sentence (18) is viewed as an example of the caused motion construction, it is possible to say that in it the verb *horrify* has its normal meaning, which may be glossed "to cause or excite horror in; to move to horror" (*OED*, s.v.), and that the participant roles are Horrifier and Horrified. The caused motion construction, for its part, involves three arguments, with the semantic roles of Agent or Instrument, Undergoer or Patient, and Goal. The Horrifier participant role of the higher verb in sentence (18) is matched with the Agent argument role of the caused motion construction in sentence (18), and the Horrified participant role of the verb is matched with the Undergoer or Patient role of the caused motion construction in a straightforward way. Sentence (18), of course, has a third argument role, and it is not matched with a participant role of the verb; instead, it is supplied by the construction.

Goldberg and Jackendoff (2004) give an analysis of the semantic interpretation involved by identifying two distinct subevents and a specific relation between them. Their comments were made on the larger class of resultatives, but the caused motion construction discussed here is a subtype of the more generic class of resultatives and the comments are relevant here. They write:

> ... the meaning of a resultative sentence contains two separable subevents. One of them, the VERBAL SUBEVENT, is determined by the verb of the sentence. The other subevent, the CONSTRUCTIONAL SUBEVENT, is

> determined by the construction. A resultative sentence means more than just the conjunction of the verbal subevent and the constructional subevent. ... That is, for the bulk of cases ... the verbal subevent is the MEANS by which the constructional subevent takes place. (Goldberg and Jackendoff 2004, 538)

In sentence (18) the verbal subevent is that of horrifying, and the constructional subevent is that of causing (someone) to move into a state. Part of the meaning of sentence (18) is then along the lines of "someone almost caused Augusta to move into following the example by means of causing horror in her."

It is for verbs such as *horrify*, which generally occur as two-argument verbs in English, that Goldberg's notion of a construction is especially useful. The reason is that employing the notion makes it possible to permit the verb in question to retain its normal meaning even in a sentence such as (18), with the meaning of the sentence in part being an amalgam of the meanings of the construction and of the verb.

We might consider the verb *horrify* as an example to illustrate what this means. In view of the "ordinary" use of the verb, as in (15a), and of the use of the verb with the transitive *into -ing* pattern, it would be a conceivable approach to the analysis of the verb to suggest that there should be two distinct senses of the verb, one "to cause or excite horror in; to move to horror," relevant to (15a), and the other "to move someone into doing something by means of exciting horror in the person," relevant to (18). In this approach it would then presumably be necessary likewise to propose similar double entries for other verbs of the type of *horrify* in Table 2.1, such as *trick* and others. As Goldberg puts it, "it might be suggested that all of these unusual examples should be accounted for by specifying separate lexical entries for each of the verbs involved, instead of positing a construction" (Goldberg 2005, 26). When making the comment Goldberg was discussing a different type of verb, but the comment is relevant to the present class of verbs, involving the caused motion construction.

However, rather than positing such double entries for verbs such as *horrify* that are normally used with two arguments, it is possible to appeal to the notion of a construction to account for causative uses, and to say that the relevant part of the meaning of a sentence such as (18) is a combination of the meanings of the matrix verb and of the caused motion construction.

For their part, verbs that are often one-argument verbs, of the type of *laugh* and *talk*, are accounted for in a way that is similar in principle,

except that in their case the construction supplies two arguments. *Laugh* was illustrated in (13g), which may be simplified into (19).

(19) She won't laugh me into thinking that.

The participant roles of *laugh* in sentence (19) are limited to one, Laugher. This participant role of *laugh* in (19) is matched with the Agent argument role of the caused motion construction. The Undergoer and Goal argument roles of the caused motion construction in (19) are not matched with the participant roles of the verb; instead, they are supplied by the construction. The meaning of *laugh* in sentence (19) is the normal meaning of the verb "to manifest the combination of bodily phenomena ... which forms the instinctive expression of mirth" (*OED*, part of the definition of sense 1.a). Part of the meaning of sentence (19) is then along the lines of "she won't cause me to move into thinking that by means of laughing."

Again, it is of interest to compare the approach based on a Goldbergian notion of a construction and a conceivable alternative. The alternative would be to postulate two separate senses for *laugh*. One of them would be the ordinary sense of "manifest the combination of bodily phenomena ... which form the instinctive expression of mirth," and the other would be along the lines of "induce someone to do something by means of manifesting the combination of bodily phenomena forming the instinctive expression of mirth." However, if the Goldbergian approach is adopted, there is no need to postulate such a second sense for *laugh*. Instead, it is possible to appeal to the notion of construction in the case of *laugh* and to say that the verb has its ordinary sense in a sentence such as (19) and that part of the meaning of the sentence is an amalgam of the senses of the verb and of the construction, with the subevents being related to each other in the way specified by Goldberg and Jackendoff (2004). The constructional approach is attractive because it makes it possible to represent the sense of the verb on the basis of the ordinary, non-causative use of the verb, and to account for the causative use of the verb by invoking the caused motion construction, existing independently in the language.

4 Semantic classes of matrix verbs

For the task of setting up semantic classes to characterize verbs selecting this pattern, it should be borne in mind that the transitive *into -ing* pattern is resultative in nature: the referent of the higher subject influences

the referent of the higher object into the action or state specified by the lower clause. Instead of using the verb "influence," it is also possible to use the verb "move" and to speak of caused motion: the referent of the higher subject causes the referent of the higher object to move into the action or state specified by the lower clause. Or it is possible to say that the referent of the higher subject causes the referent of the higher object to perform the action or go into the state encoded by the lower clause.

If the Goldberg-Jackendoff approach, proposed for resultatives more generally, is adopted for the analysis of the transitive *into -ing* pattern, the task of characterizing the senses of matrix verbs selecting it comes down to focusing on the nature of the means that the verbs in question express. It seems clear that a number of semantic classes can be identified to accommodate the verbs listed above. Table 2.2 outlines a proposed taxonomy.

Table 2.2 Semantic classes of matrix verbs selecting the transitive *into -ing* pattern in the British English part of the CEN

(NP_1 causes NP_0 to perform S_2)
by means of deception or trickery *beguile* (3), *betray* (1), *cheat* (4), *deceive* (7), *delude* (3), *dupe* (1), *fool* (1), *gull* (1), *trap* (2), *trick* (3); 26 tokens
by means of exerting force or pressure, sometimes understood metaphorically *carry away* (1), *coerce* (2), *draw* (1), *drive* (6), *egg* (1), *force* (1), *harass* (1), *oppress* (1), *stir* (1), *throw* (1), *whip* (1); 17 tokens
by means of arousing fear, irritation, anger, annoyance, confusion, surprise *astonish* (1), *badger* (1), *exasperate* (1) *frighten* (9), *goad* (1), *horrify* (1), *irritate* (2), *madden* (1), *provoke* (3), *shame* (1), *startle* (1), *surprise* (1), *terrify* (1); 24 tokens
by means of enticing, flattering or verbal persuasion *bribe* (2), *cajole* (2) *coax* (1), *flatter* (1), *lure* (5), *persuade* (4), *talk* (1), *talk over* (1), *tempt* (1); 18 tokens
by other specific means *constrain* (1), *fascinate* (2), *hush* (1), *laugh* (1), *weary* (1); 6 tokens
by nonspecific means *lead* (2); 2 tokens

The postulation of such semantic classes does not amount to a claim that verbs belonging to any one class are synonymous in their senses. Instead, the classes are intended to capture shared ingredients of meaning. Some of the characterizations of senses are easier to formulate than others, but it seems clear that the large majority of the relevant matrix verbs express caused motion that is flavored in some way, with the flavor indicating the means of causation.

Some of the classes of flavored causation, in turn, are easier to define than others, and in the case of the well-defined classes it also tends to be easier to make decisions about the assignment of particular verbs. Thus the class of verbs of deception is one of the best defined, though even here it might be added that verbs of luring are not that far removed from them. For their part, the class of verbs that express the arousing of fear, irritation, anger, annoyance, confusion, or surprise are somewhat disparate, but the verbs of the class highlight an element of emotion.

If the taxonomy is on the right lines, it appears that about a hundred years ago, verbs selecting the transitive *into -ing* pattern tended to express caused motion by means of deception or exerting force or by means of arousing an emotion. A surprising feature of the taxonomy is how rare verbs of talking tended to be with the pattern a hundred years ago. Verbs that express caused motion by unspecified means were also very rare.

These semantic classes are also of interest from the point of view of interdependencies between the matrix verb and the lower predicate. Such dependencies were first noted in Rudanko (2000), where two kinds of links were observed for present-day English on the basis of the BNC. First, when the matrix verb expressed "exerting force or pressure," the lower verb, it was argued, tended to have an agentive subject, and, second, when the matrix verb was of the "deception or trickery" class, the lower verb tended to have an Experiencer subject. Such links have since been developed further in more formal work by Gries and Stefanowitsch (2003) and Stefanowitsch and Gries (2005), which has also been based on present-day English.

Here we may probe the complements of the two most frequent verbs of the two classes from the point of view of the prediction made by the earlier work. *Deceive* is the most common verb of deception in the material, and the prediction is that lower verbs with Experiencer subjects would be favored in its complements. The lower verbs in its complements are listed in (20), with some illustrations in (21a–c). (Strictly speaking, the semantic role of a subject is determined by the VP in question, but in the present case, the nature of the semantic role becomes apparent even from the verb.)

(20) *accept* (1), *believe* (1), *imagine* (1), *see* (1), *think* (2), *trust* (1)

(21) (a) Did he ever really deceive himself into imagining that this was all? (1884, Humphrey Ward, *Miss Bretherton*)

(b) ... he answered earnestly, deceived into thinking I was about to surrender. (1893, Stanley John Weyman, *A Gentleman of France*)

(c) ... when the veil of mere Appearances has been lifted we are no longer deceived into accepting what Seems for what Is. (1911, Marie Corelli, *The Life Everlasting*)

The numbers are below the threshold of statistical significance, but they are still consistent with the prediction. All the verbs listed in (20), with the possible exception of *accept*, do have Experiencer subjects, as illustrated in (21a–b).

As for the second prediction, with verbs expressing the exertion of force or pressure, the prediction is that lower subjects with the Experiencer case role should be rare and lower subjects with the Agent case role should be more frequent. *Drive* is the most frequent verb in this class, with six tokens. The verbs found in the lower clauses in the six tokens are listed in (22), with illustrations provided in (23a–c). Each of the verbs listed in (22) occurs only once.

(22) *announce*, *betray*, *marry*, *play*, *support*, *try*

(23) (a) ... she felt herself driven somehow into playing devil's advocate. (1894, Humphry Ward, *Marcella*)

(b) ... how at last he was driven into marrying her, meaning her no harm, to save her from the grip of Ramiro ... (1901, Henry Rider Haggard, *Lysbeth*)

(c) ... having once been driven into announcing her decision in terms so open and unmistakable, Mary would not go back on her word (1904, Henry Rider Haggard, *Stella Fregelius*)

Again the prediction is confirmed in a striking fashion, for all of the six verbs have agentive subjects, as illustrated in (23a–c). Interdependencies of the type illustrated here provide one reason for attempting semantic characterizations of the matrix verbs selecting the pattern, and the argument here shows not only that such interdependencies hold for current English, as has been demonstrated in earlier work, but that they also hold for older English.

5 The transitive *into -ing* pattern in the American English part of the CEN

The American English part of the CEN comprises 5.9 million words. A search with the search string *into *ing* produces 147 hits, but a number of these are irrelevant, much as in the corresponding British English corpus. For instance, there are tokens of *into something*, and tokens

of subject control structures, of the type ... *he strayed off into wondering* ... (1913, Edith Wharton, *The Custom of the Country*). When irrelevant tokens are excluded, there are 57 tokens of the transitive *into -ing* pattern in this corpus. This means that the frequency of the pattern is 9.7 per million words. This is noticeably higher than the corresponding frequency of 7.6 in the British English part of the corpus.

Table 2.3 gives information about the matrix verbs selecting the pattern in the corpus, with their frequencies.

Table 2.3 Frequencies of matrix verbs selecting the transitive *into -ing* pattern in the American English part of the CEN

Frequency	**Verbs**
6	*deceive*
5	*lead, wheedle*
4	*force*
3	*betray, persuade*
2	*coax, entrap, surprise, trap, trick,*
1	*alarm, beg, bully, charm, cheat, coerce, dazzle, drive, frighten, goad, hound, inveigle, jolly, mislead, pique, provoke, scare, shame, stun, talk, tease*

Some illustrations of the pattern in the American English corpus are given in (24a–f). The illustrations in (24a–d) have matrix verbs that are not necessarily negative in themselves, and they have been selected in order to probe the possibility of non-negative uses of the pattern. The illustrations in (24e–f) have verbs that tend to have negative associations in themselves.

(24) (a) Giovanni was in a bad humour that day. He had suffered himself to be persuaded into joining in a species of amusement for which he cared nothing, by a mere word from a woman for whom he cared less ... (1887, Francis Marion Crawford, *Saracinesca*)

(b) After you consume the pink confection you will sing like a nightingale. Eating the white one will enable you to become the finest elocutionist in the land. The chocolate piece will charm you into playing the piano better than Rubenstein, while after eating your lemon-yellow bonbon you can easily kick six feet. (1901, Lyman Frank Baum, *American Fairy Tales*)

(c) ... even you might quail at the thought of explaining the tortuous mental processes that led you into throwing your beloved

pink parasol into Miranda Sawyer's well. (1903, Kate Douglas Wiggin, *Rebecca of Sunnybrook*)

(d) ... it was possible that by some diplomatically analogous tale he could surprise her into telling him the truth. (1919, Gertrude Atherton, *The Avalanche*)

(e) On his side, he has succeeded in piquing her into thinking of him continuously, though solely, as she fancies, for the purpose of crossing swords with him. (1898, Kate Douglas Wiggin, *Penelope's Experiences in Scotland*)

(f) Her great lucidity startled him, but did not mislead him into thinking her insensible. (1920, Edith Wharton, *The Age of Innocence*)

The negative associations of (24a) and (24c) seem clear enough, but in view of (24b) and (24d) there may have been some scope for the pattern to have neutral or even positive associations in American English a hundred years ago.

The American English material further supports the proposal that the transitive *into -ing* pattern should be viewed as a construction. *Persuade* and *pique* may be commented on here, as representatives of two types of verbs that are different from a syntactic point of view. *Persuade*, illustrated with the transitive *into -ing* pattern in (24a), selects three argument roles, independently of the transitive *into -ing* pattern, as in (25):

(25) If you can persuade your daughter to marry Gasparo, ... (1887, Francis Marion Crawford, *Marzio's Crucifix*)

The participant roles are Persuader, Persuaded, and Action, and they may be matched with the argument roles Agent, Undergoer, and Goal of the caused motion construction in a straightforward fashion.

More striking evidence for regarding the *into -ing* pattern as a type of the caused motion construction is provided by verbs of the type of *pique*. This verb ordinarily has the sense "to wound the pride of; irritate, or offend; to make resentful" (*OED Online*, sense 2), and it is generally found with two arguments, outside of the transitive *into -ing* pattern, as in (26):

(26) When the earl had sufficiently piqued me by his devotion to his dinner and his glances at Francesca, I began ... (1898, Kate Douglas Wiggins, *Penelope's Experiences in Scotland*)

It is attractive to view sentence (24e) as an instance of the caused motion construction. The alternative would be to posit two senses for *pique*, one

the ordinary sense "to wound the pride of," and the other a causative sense of the type "move someone into doing something by wounding the pride of the person," but this fails to capture a regularity of form and meaning. Instead, it is possible to say that the sense of the verb in (24e) is the ordinary sense "to wound the pride of" and that part of the meaning of (24e) is a combination of this meaning with the meaning of the construction, along the lines of "succeeded in moving her into thinking of him by means of wounding her pride." Underlying the analysis is again the idea of the two subevents involved, the verbal and the constructional, and the concomitant idea that the verbal subevent expresses the means of the constructional subevent.

Turning to the task of characterizing the classes of matrix verbs selecting the transitive *into -ing* pattern from a semantic point of view, the proposal that the pattern is a type of the caused motion construction again means that in the semantic analysis of matrix predicates the focus is on the means by which the constructional subevent comes about. It seems that the same set of classes proposed for British English lend themselves to American English (See Table 2.4.).

Table 2.4 Semantic classes of matrix verbs in the American English part of the CEN

(NP_1 causes NP_0 to perform S_2)
by means of deception or trickery *betray* (3), *cheat* (1), *deceive* (6), *entrap* (2), *inveigle* (1), *mislead* (1), *trap* (2), *trick* (2); 18 tokens
by means of exerting force or pressure, sometimes understood metaphorically *coerce* (1), *drive* (1), *force* (4), *hound* (1); 7 tokens
by means of arousing fear, irritation, anger, annoyance, confusion, surprise *alarm* (1), *alarm* (1), *dazzle* (1), *frighten* (1), *goad* (1), *pique* (1), *provoke* (1), *scare* (1), *shame* (1), *stun* (1), *surprise* (2); 12 tokens
by means of enticing, flattering, or other verbal persuasion *beg* (1), *coax* (2), *persuade* (3), *talk* (1), *tease* (1), *wheedle* (5); 13 tokens
by other specific means *charm* (1), *jolly* (1); 2 tokens
by nonspecific means *lead* (5); 5 tokens

Table 2.4 shows that verbs of deception are the largest class in the American English data, as they were in the British English data. On the other hand, verbs expressing the exertion of force or pressure are a

much smaller class. It is also worth noting that the verb *talk* occurs only once, as in the British English data.

The semantic classes invite a comment on interdependencies between the classes and semantic roles of lower subjects. *Deceive* is the most frequent verb in the class of verbs of deception, and the prediction is that its lower subjects would tend to have Experiencer roles. This expectation is not borne out as regularly as in the British English database, but numbers are low. The lower verbs or predicates where appropriate are listed in (27), with two illustrations in (28a–b).

(27) *believe* (2 tokens), *bestow*, *consent*, *issue an order*, *marry*

(28) (a) ... Scales had deceived the girl into believing that he was a prominent ranchman ... (1904, Andy Adams, *A Texas Matchmaker*)
(b) ... persuade herself with her own eyes that she is not being deceived into marrying a hunchback. (1901, Francis Marion Crawford, *Marietta*)

As for verbs expressing force or pressure, the expectation, on the basis of earlier work, is that the lower subjects should tend to be more agentive than with verbs of deception. The verb *force* is the most frequent of these verbs. Its lower verbs are listed in (29), with illustrations in (30a–b).

(29) *converse*, *explain*, *marry*, *oppose*

(30) (a) She understood her son's nature, too, and dreaded lest he should be forced into opposing his father. (1892, Francis Marion Crawford, *Don Orsino*)
(b) ... would certainly not try to force him into explaining how the glass was made. (1901, Francis Marion Crawford, *Marietta*)

In this case the expectation is fulfilled, for all lower subjects in complements of *force* are indeed agentive, as in (30a–b).

6 The transitive *into -ing* pattern in the British Books Corpus

For current English, the total number of matrix verb tokens selecting the pattern in the British Books Corpus is 97. This yields a normalized frequency of 17.6 per million words. When this figure is compared with the frequency of the construction in the British English part of the CEN, which was only 7.6 per million words, it should be borne in mind

that the two corpora are not identical with respect to text type, because the former corpus comprises both fiction and non-fiction, while the latter is limited to fiction. However, the overall frequency of the construction in the newer corpus is so much higher that it still seems safe to say that the overall frequency of the pattern has gone up considerably over the past century. One might also speculate that because of the sometimes colorful nature of verbs selecting the transitive *into -ing* pattern, it might be more frequent in fiction than in non-fiction. This speculation, if true, would highlight the increasing frequency of the construction, but the speculation remains to be examined in follow-up work before it can be accepted or rejected.

Table 2.5 gives a list of the verbs encountered in the British Books Corpus with their frequencies.

Table 2.5 Frequencies of matrix verbs selecting the transitive *into -ing* pattern in the British Books Corpus

Frequency	**Verbs**
9	*talk*
4	*fool, lead, pressurize, trick*
3	*coax, con, entice, frighten, lull, manipulate, startle*
2	*badger, deceive, hurry, manoeuvre, mislead, persuade, provoke, push, shock, throw*
1	*bewitch, brainwash, browbeat, cajole, condition, delude, draw, egg on, flatter, force, guide, harass, hassle, hoodwink, jerk, kick and stroke, lure, nudge, pester, pressure, socialize, stampede, stimulate, suck, sweet-talk, tease, tempt, torture, train, trigger, wheedle*

Some illustrations are given in (31a–h). Again, the illustrations were collected with an eye to probing the question of whether the negative flavor is regularly observed in current English. With this in mind, they are weighted in favor of verbs that do not appear to be inherently negative in themselves.

(31) (a) "And here I thought I could sweet-talk you into teaching me more about the samba," Sabrina said grinning at Siobhan.
(b) Eroticism can also be a deliberate act of making something which is fundamentally neither sexual nor life-giving look as if it contained these values in order to excite us and stimulate us into wanting it.

(c) Your dreams, intuitions, tastes and preferences, what you like and dislike are all important messages about you. With practice you can use them to guide you into making the right choices for you.
(d) ... just a potential quiver of medicament treatments for disease. We will have lost the habitat, that forcing house of evolutionary pressures that triggered the rosy periwinkle and its cousins into producing these alkaloids in the first place. And this would be a pity ...
(e) In the same way as the flower needs the warming rays of the sun to bring it forth from potentiality into bloom, so our Buddha-nature requires an outside force to draw it into awakening.
(f) They're both good soldiers. If I could contact either of them, I could probably talk them into helping her find the kid – for the right price, of course.
(g) ... to take on most of the domestic chores. "Well, he doesn't really do it properly" or "He's had a hard day" are surprisingly common excuses. In truth, society conditions women into feeling guilty if their interests extend beyond the home front.
(h) Do not be persuaded into thinking hypnosis is dangerous, because it is not. A lot of the misapprehensions about hypnosis stem from ignorance ...

In examples (31g) and (31h), the use of the transitive *into -ing* pattern seems linked to a negative flavor or prosody, and in (31f) it is not easy to decide one way or the other. However, in (31c), (31d), and (31e) it seems clear that the pattern is linked to a positive flavor. It would appear that such positive associations are easier to find in the current English material than in the historical data.

Table 2.6 gives information on semantic classes.

The two largest classes in terms of tokens found are the same as in the historical data, with verbs expressing deception leading the way, and verbs expressing exerting force or pressure coming in second. The second place is shared with "Verbs of enticing, flattering or verbal persuasion."

With respect to these two classes, it is of interest to examine the semantic role of the lower subject. This may again be done with the help of the most frequent verb in each case. *Fool* is selected from the class of verbs of deception and *pressurize* from the class of verbs expressing force or pressure. The lower verbs of the former are *believe* and *think*, both

Table 2.6 Semantic classes of matrix verbs in the British Books Corpus

(NP_1 causes NP_0 to perform S_2)
by means of deception or trickery *bewitch* (1), *brainwash* (1), *con* (3), *deceive* (2), *delude* (1), *fool* (4), *hoodwink* (1), *lull* (3), *mislead* (2), *manipulate* (3), *trick* (4); 25 tokens
by means of exerting force or pressure, sometimes understood metaphorically *browbeat* (1), *draw* (1), *egg on* (1), *force* (1), *harass* (1), *hassle* (1), *hurry* (2), *jerk* (1), *kick and stroke* (1), *nudge* (1), *pressure* (1), *pressurize* (4), *push* (2), *stampede* (1), *suck* (1), *throw* (2), *torture* (1); 23 tokens
by means of arousing fear, irritation, anger, annoyance, confusion, surprise *badger* (2), *frighten* (3), *pester* (1), *provoke* (2), *shock* (2), *startle* (3), *tease* (1); 14 tokens
by means of enticing, flattering, or verbal persuasion *cajole* (1), *coax* (3), *entice* (3), *flatter* (1), *lure* (1), *persuade* (2), *sweet-talk* (1), *talk* (9), *tempt* (1), *wheedle* (1); 23 tokens
by other specific means *condition* (1), *guide* (1), *manoeuvre* (2), *socialize* (1), *train* (1); 6 tokens
by nonspecific means *lead* (4), *stimulate* (1), *trigger* (1); 6 tokens

occurring twice, and those of the latter are *take* and *make*, the latter occurring three times. Here are some illustrations:

(32) (a) ...if you smile frequently you can fool your body into feeling happy and a false smile will have the same effect as a natural one.

(b) Maybe she had fooled herself into thinking that she could do more, or that she would be healed.

(33) (a) ...it would be in his interests to keep a close watch on all the costs involved and also not be pressurized into making any decision against his better judgement.

(b) One of his campaign promises was to pressurize the then Reagan administration into taking even tougher measures against terrorism than it already had.

The predictions are thus confirmed in a striking fashion.

Regarding the other semantic classes, two points merit attention. First, the proportion of tokens of verbs of verbal persuasion has gone up considerably. This is largely due to the much greater frequency of the matrix verb *talk*. This verb was encountered only twice with the pattern

in the historical material, but now it is the most frequent verb selecting the pattern.

Second, there has also been a rise in the frequency of verbs expressing caused motion by non-specific means. In the historical material the verb *lead* was found, which may be glossed "to induce *to* do something" (*OED*, part of sense 5). Now the class also includes the verbs *stimulate*, which may be glossed "to incite (a person) *to do* something" (*OED*, part of sense 2), and *trigger*, which may be glossed "to stimulate" or "set off". *Stimulate* and *trigger* were illustrated in (31b) and (31d), respectively, with the illustrations being essentially of the form *Something stimulates us into wanting eroticism* and *The habitat triggers the periwinkle into producing alkaloids*. Here are two illustrations of *lead*:

(34) (a) ... she had a fascinating way of directing the conversation away from herself and leading him into doing all the talking.
(b) The Water Rat is usually very popular but his fear of loneliness can sometimes lead him into mixing with the wrong sort of company.

Lead, *stimulate*, and *trigger* may all be viewed as causative verbs. It is easy independently to find *lead* and *stimulate* with three arguments, as in (35a–b).

(35) (a) The accused had also been friendly with the girl who was now his wife. This led the prosecution to ask about her.
(b) The Gardners' work stimulated others to follow.

Trigger can likewise be found with three arguments in the Collins Cobuild Demonstration Corpus, though it is necessary to go outside British Books for an example:

(36) Try putting the list of "what I love about you" points in a place where you see it every day to trigger your brain to think in that pattern rather than the negative. (Oz News)

The transitive *into -ing* pattern has thus been spreading to verbs of unflavored causation. This has meant that it has been encroaching on the "territory" of the *to* infinitive pattern of three arguments involving object control. The spread of the transitive *into -ing* pattern in current English is taken up in more detail in Chapters 3 and 4.

7 The transitive *into -ing* pattern in the United States Books Corpus

In the United States Books Corpus in the Collins Cobuild Demonstration Corpus, there are 80 tokens of the pattern in this corpus of 5.6 million words. This amounts to a frequency of 14.3 per million words. This frequency is somewhat lower than that in the corresponding British English corpus, but it still represents a considerable increase in relation to the frequency of 9.7 in the American English database from a hundred years ago. It is therefore possible to say that the pattern has become more common in both British and American English in the course of the past century.

Table 2.7 Frequencies of matrix verbs selecting the transitive *into -ing* pattern in the United States Books Corpus

Frequency	Verbs
13	*talk*
5	*delude*
4	*fool, seduce, trick*
3	*force, pressure*
2	*betray, bully, cajole, decoy, intimidate, lead, lull, lure, manipulate, mislead, push*
1	*abash, alarm, badger, bait, beguile, blackmail, charm, coax, coerce, deceive, educate, frighten, induce, misprogram, plunge, reduce, scare, sidetrack, sweet-talk, tempt, threaten, trap*

Table 2.7 gives information on the matrix verbs selecting the pattern and on their frequencies.

From Table 2.7, it is again clear that many of the verbs, including *delude*, *trick*, and many others, are more or less inherently negative in flavor . Under these circumstances, it is of interest again to explore the possibility of non-negative uses of the pattern when giving illustrations. Illustrations (37a–f) have been chosen to explore the possibility of non-negative uses of the pattern, and (37g–i) illustrate some of the verbs that are inherently negative in flavor.

(37) (a) Having helped her get the alligator license by talking the clerk into bending a few rules for her, he had accompanied her to the other Quonset hut for the eye test.

(b) One could argue that she had been "educated" in the intervening years into understanding the doctrinal importance of the Trinity ...
(c) Unless you truly want the product, don't be induced into buying it because of the free gift.
(d) Hostility stemming from almost any source can lead one spouse into withholding sex as a means of both exacting retribution and controlling or manipulating the other.
(e) She charmed the town fathers into letting her plant bulbs at the main intersections and along our village streets.
(f) One of the building's first tenants had been the colorfully eccentric Horace Greeley, the great liberal editor of the New York Tribune, credited with pressuring Lincoln into issuing the Emancipation Proclamation, surely a promising genius loci for politics ...
(g) I was the one who seduced the old prophet into lying?
(h) This "solution" is no real solution: it forces the man into withholding not only his own pleasure but withholding something his partner wants ...
(i) Henry knelt down beside his corner, abashed by father's temper into preparing himself.

The illustrations show once more how there tends to be a negative flavor associated with the transitive *into -ing* pattern. Potential counterexamples perhaps include (37b), and while the verb *pressure* may be regarded as having a negative flavor, sentence (37f) shows how the larger context of the transitive *into -ing* pattern may be positive. However, such sentences are not plentiful, and most tokens of the pattern are negative in some way.

Regarding the status of the transitive *into -ing* pattern as a construction, it is again the class of verbs that are generally found with two arguments that provide the most striking evidence. Here the verb *abash*, illustrated with the transitive *into -ing* pattern in sentence (37i), may be considered as a case in point. For the purpose of discussion, sentence (37i) may be simplified to (38).

(38) Father abashed him into preparing himself.

The verb *abash* is found with two arguments in the United States Books Corpus:

(39) It was strange to see, that the good shrank not from the wicked, nor were the sinners abashed by the saints.

The sense of the verb in (39) is its basic meaning of "to destroy the self-possession or confidence of (any one) ... or check with a sudden consciousness of shame, presumption, error, or the like" (*OED*, part of sense 1).

The attraction of viewing a sentence of the type of (38) as an instance of the caused motion construction is that it is then not necessary to posit another causative sense for the verb *abash* in (38). Instead, it is possible to say that the verb retains its ordinary sense in (38), and that part of the meaning of (38) is an amalgam of the sense of the verb and of the construction, with the verbal subevent again expressing the means of the constructional subevent. Part of the meaning of (38) is then along the lines of "father caused him to prepare himself by means of checking him with a sudden consciousness of shame."

Table 2.8 gives information on semantic classes of the matrix verbs encountered, again making the assumption that the verbal subevent expresses the means of the constructional subevent.

Table 2.8 Semantic classes of matrix verbs in the United States Books Corpus

(NP_1 causes NP_0 to perform S_2)
by means of deception or trickery *beguile* (1), *betray* (2), *deceive* (1), *decoy* (2), *delude* (5), *fool* (4), *lull* (2), *manipulate* (2), *mislead* (2), *misprogram* (1), *trap* (1), *trick* (4); 27 tokens
by means of exerting force or pressure, sometimes understood metaphorically *badger* (1), *blackmail* (1), *coerce* (1), *force* (3), *plunge* (1), *pressure* (3), *push* (2), *sidetrack* (1); 13 tokens
by means of arousing fear, irritation, anger, annoyance, confusion, surprise *abash* (1), *alarm* (1), *bully* (2), *frighten* (1), *intimidate* (2), *scare* (1); 8 tokens
by means of enticing, flattering, or verbal persuasion *bait* (1), *cajole* (2), *coax* (1), *lure* (2), *seduce* (4), *sweet-talk* (1), *talk* (13), *tempt* (1), *threaten* (1); 26 tokens
by other specific means *charm* (1), *educate* (1), *reduce* (1); 3 tokens
by nonspecific means *induce* (1), *lead* (2); 3 tokens

Once more the class of the verbs of deception is the largest in terms of tokens belonging to it. However, the class of verbs of enticing, flattering, or verbal persuasion also now has numerous tokens, largely because of the high frequency of *talk*. By contrast, verbs expressing the exertion of force or the arousing of fear or other emotions are now relatively infrequent.

The verbs *delude* and *fool* may be considered in order to examine the correlation between the nature of the matrix verbs and the lower subject. The expectation is that subjects with the semantic role of Experiencer should be frequent with verbs of this type, and this is indeed the case, for *believe* is found in these complements as many as five times, and *think* twice. Two illustrations are given in (40a–b).

(40) (a) American commanders in the southwest Pacific deliberately created clouds of dust to delude the Japanese into believing two airfields were being built on New Guinea ...
(b) Frightened by the 1960s, they entered the 1970s determined not to be fooled again into thinking they could change the world.

8 Summary and concluding observations

This chapter has substantiated the existence of the transitive *into -ing* pattern both in British English and in American English about a hundred years ago and at the present time. Moreover, it has shown a considerable increase in the incidence of the pattern in both of these regional varieties.

While the frequency of the pattern is lower in the older corpora, it is observed with verbs of different types in the historical material. These include verbs, such as *persuade*, that are also independently found with three arguments, where the third argument is a *to* infinitive. They also include verbs that are often found with two arguments, such as *frighten*, and there are tokens involving verbs that are often intransitive, such as *laugh*.

While matrix verbs selecting the transitive *into -ing* pattern are thus of different syntactic types, it has been proposed in this chapter that the framework of construction grammar offers a suitable theoretical model for the analysis of the pattern. In particular, the framework is attractive in the case of verbs that do not in general select three arguments. For instance, a verb such as *horrify*, with the sense "to cause or excite horror in; to move to horror" (*OED*), is a case in point. It commonly selects two arguments, as in *Something horrified someone*.

The verb is also easily found with the transitive *into -ing* pattern, of the type *Something horrified someone into doing something*. The chief attraction of viewing the pattern as a caused motion construction is that it is then possible to capture a generalization between form and meaning. The caused motion construction involves two subevents, the verbal and

the constructional, and the verbal subevent expresses the means of the constructional subevent. It is then possible to say that the verb retains its normal meaning even when selecting the transitive *into -ing* pattern. Part of the meaning of a sentence with a transitive *into -ing* complement is thus a combination of the constructional meaning and of the verbal meaning, taking into account the specific relation of the two subevents, of the type "something caused someone to do something by means of exciting horror." In this way a regularity between form and meaning is captured, and there is no need to proliferate verb senses of matrix verbs.

It has also been argued in this chapter that the choice of matrix verbs selecting the transitive *into -ing* pattern is not random from a semantic point of view. Instead, such verbs can be characterized on the basis of a limited number of semantic classes. Verbs of deception and those expressing the exertion of force or pressure were found to be the most frequent types of matrix verbs selecting the pattern. Each of these may be associated with a complement of a particular semantic type, in that verbs of deception are associated with lower subjects that are Experiencers and those expressing force or pressure are associated with lower subjects that are Agents.

In current English, verbs expressing deception and the exertion of force or pressure continue to be the most common types of verbs selecting the transitive *into -ing* pattern, and the same associations with lower subjects hold. There has also been a considerable expansion of the use of verbs of verbal persuasion selecting the pattern, with *talk* now the most frequent single verb with the pattern. Further, verbs of unflavored causation have become more frequent. Such verbs of unflavored causation have tended to occur with *to* infinitives in three-argument constructions, and the spread of the transitive *into -ing* pattern has meant an encroachment on the "territory" of *to* infinitives.

3
Innovative Resultatives in British and American English

1 Introduction

Chapter 2 examined basic properties of the transitive *into -ing* pattern from the perspective of the past 100 years, on the basis of four relatively small corpora. This chapter draws on much larger corpora of current English than Chapter 2 did in order further to probe the productivity of the pattern in current English.

As a prelude we may cast a brief look at the LOB and Brown Corpora, from 1961, and the FLOB and Frown Corpora, from 1991/2, each of which comprises about one million words. On the basis of these corpora, it seems possible to say that the transitive *into -ing* pattern has been gaining ground recently. This confirms the finding of Chapter 2, which was based on somewhat larger corpora. Table 3.1 shows the numbers of tokens from the four smaller corpora. The figures in Table 3.1 suggest that the transitive *into -ing* pattern has been becoming more frequent especially in British English.

Table 3.1 The transitive *into -ing* pattern in the LOB, Brown, FLOB, and Frown Corpora

Corpus	**LOB**	**Brown**	**FLOB**	**Frown**
No. of tokens	6	18	21	21

Here are some illustrations, one for each of the four corpora:

(1) (a) As Europe and America slowly approach a cultural unity which must eventually shame the politicians into following suit, the

old concept of local or national reputations in the arts is being discarded. (LOB A17 4–7)

(b) Gaylor's obsession and Cunningham's chimera chasing reminiscences had mesmerized him into thinking of Lila and Lilac, separately or together, as a legend. (Brown L07 1730–1740)

(c) Southampton himself modernized and rack-rented his estates, pressurizing copyholders into becoming lease-holders by increased fines. (FLOB G34 165–167)

(d) It's demeaning that the authors of these stories professed to be writing them because they thought I was getting pressured into cooling the relationship, which was untrue, ... (Frown F15 142–144)

The question of the productivity of what is here called the transitive *into -ing* pattern has been commented on in the literature by Hunston and Francis (2000). As was seen in Chapter 2, the transitive *into -ing* pattern is often linked to a negative flavor, and they suggest that extensions to negative verbs are more likely than extensions to positive verbs. They write:

> If we can say that someone *annoys* or *irritates* someone into doing something, then presumably we could also say that someone *angers* or *infuriates* someone into doing something. The lack of corpus evidence does not indicate that the missing occurrences are "incorrect English." If we can cay that someone *relaxes* someone into doing something, can we also say that someone *calms* or *soothes* someone into doing something? This seems, intuitively, less likely, but only, perhaps, because the process of analogy has not yet progressed so far. (Hunston and Francis 2000, 102 f.)

Further, Hunston and Francis (2000, 104) suggest that when verbs that are not normally negative, including *debate*, are found with the *into -ing* pattern, there tend to be negative overtones present, such as implications of futility or lack of success, in the larger context associated with the use of matrix verbs. Similarly, as noted in Chapter 2, Wulff et al. (2007) suggest that while verbs that "generally have a neutral or even positive connotation" can be found with the pattern, they "are not interpreted in the default senses" when combined with the pattern. Instead, in such usages, "senses have been selected which allow for negative interpretation, mostly involving effort" (Wulff et al. 2007, 274–275).

Earlier investigations of the productivity of the pattern on the basis of large corpora include Rudanko (2000), which was based on the BNC. In

the present study, the focus is on the text types of newspaper English and books on the basis of four large corpora of the Bank of English Corpus. The corpora in question are the *Sun* and *News of the World* (SUNNOW) and British Books corpora for British English, and the United States News and United States Books corpora for American English. In addition, the data from the four corpora are supplemented with data from the British Magazines Corpus of the Bank of English Corpus.

The size of each corpus is given in Table 3.2.

Table 3.2 The sizes of the corpora examined

SUNNOW	45,215,200
British Books	54,681,389
United States News	37,970,504
United States Books	50,224,300
British Magazines	52,527,300

Six search strings are used in the case of each corpus. These are given in (2a–f):

(2) (a) VBI+0,3*into*+VBG
(b) VB+0,3*into*+VBG
(c) VBD+0,3*into*+VBG
(d) VBG+0,3*into*+VBG
(e) VBN+0,3*into*+VBG
(f) VBZ+0,3*into*+VBG

The symbols used are specific to the Bank of English Corpus. The symbol "VBI" stands for the infinitive form of the verb, "VB" for the uninflected form of the verb, "VBD" for the past tense form of the verb, "VBG" for the *-ing* form, "VBN" for the past participle, and "VBZ" for the present tense third person singular form of the verb. The six searches cover the different verb forms, and as regards the matrix verb, they are suited to provide a suitably comprehensive method of data gathering.

The symbols "0,3" in the search strings mean that the searches allowed for the presence of from zero to three words between the matrix verb and the preposition *into* in the string. It is obviously necessary to allow for the presence of some words between the verb and the preposition. Setting the limit at three may risk not capturing the rare example with a very long direct object, but in this way it is

possible to gather most examples most efficiently. It may be noted, additionally, that it is of course necessary to allow for zero words, that is, for the absence of words between the matrix verb and the preposition. This is necessary, for instance, in the case of passives and in the case of extractions, as for instance in *Who did he coax into revealing their recipes?*

Two of the search strings were applied to the SUNNOW and United States News Corpora in Rudanko and Luodes (2005) and Rudanko (2005) in a more limited form, but the application of the full set of search strings undertaken here can be expected to give a fuller picture of the productivity of the pattern in these corpora. As far as the present author is aware, the productivity of the transitive *into -ing* pattern in the text type of books has not been investigated at all in the literature on the basis of the two large Books subcorpora of the Bank of English Corpus.

The five corpora amount to some 250 million words altogether. One particularly innovative verb, originally pointed out in Rudanko (2000, 81) from the BNC, is also commented on in this study.

The theoretical framework adopted is that of construction grammar, as developed by Adele Goldberg (1995). The framework was used for the general analysis of the transitive *into -ing* construction in Chapter 2 and it is argued in this chapter that the caused motion construction, as a subtype of the resultative construction, likewise offers a suitable framework for analyzing innovative uses of the pattern.

The question of what constitutes an innovative usage is challenging, but a concrete decision is needed. The general policy adopted here is based on the idea that if a usage is recorded in a relevant standard reference work, it should not be viewed as innovative, but if it is not recorded, it should be viewed as innovative.

Three works are taken into account as standard works of reference here. First, Bridgeman et al. (1965), though perhaps not very well known, aims at a comprehensive coverage of matrix verbs selecting the pattern, and the list provided has about 110 verbs in it. Second, Francis et al. (1996), while apt to omit verbs that only rarely occur with a pattern, is a necessary resource, being based on corpus evidence. Francis et al. provide lists running to some 80 verbs, and many of these are additional to what is found in Bridgeman et al. (1965).

Both Bridgeman et al. (1965) and Francis et al. (1996) provide straightforward lists of verbs, and the huge majority of matrix verbs encountered in the corpora with the pattern fall by the wayside at this stage as

non-innovative. Those that pass this first test are then checked in the *OED*, to see whether that work of reference includes *into -ing* complements among those listed with the verb in question. It would clearly be misguided to regard a usage as innovative if the *OED* substantiates it as current under the entry of the verb in question.

The *OED* does not necessarily make a clear-cut and consistent distinction between *into -ing* and *into* NP complements, and this raises the question of what to do with verbs for which the *OED* does not provide illustrations of *into -ing* complements but does provide illustrations of *into* NP complements. The procedure followed here in such cases is to omit the verb from those considered innovative, provided that the construction illustrated in the *OED* is similar to the transitive *into -ing* pattern with respect to the nature of the semantic roles involved. For instance, consider *starve* in (3):

(3) The famous airlift that took place 50 years ago this summer did thwart Stalin's plan to starve West Berliners into accepting communism. (British Magazines, Bank of English)

Neither Bridgeman et al. (1965) nor Francis et al. (1996) mention *starve* in their lists, and the verb thus "survives" the first test. However, in the *OED* the sense "to force *into* (a course of action) by starvation" (part of sense 7.b) is found, with an illustration *They ... were to be starved into compliance* (1775). If *starve someone into accepting communism* is compared with *starve someone into compliance*,, it is possible to say that the semantic roles of the direct objects are similar in nature to each other and those of the prepositional *into* complements are likewise similar to each other. The notion of influencing seems relevant in this case not only to the pattern with the sentential complement but also to the pattern with the *into* NP complement. As a consequence, the matrix verb *starve* is then not featured as an innovative verb in the transitive *into -ing* pattern.

To explicate further the procedure adopted with respect to the assessing of *into* NP versus *into -ing* complements in the *OED*, it is also appropriate to illustrate a case where the semantic roles concerned were judged to be dissimilar. The verb *massage* is a case in point. The following example is found in the material:

(4) Nothing is to be gained by massaging your ego into thinking that it will be "alright on the night". (British Books)

Neither Bridgeman et al. (1965) nor Francis et al. (1996) mention *massage* in their relevant lists, and it thus survives the first step of elimination. When the *OED* treatment of the verb is consulted, the following example is found:

(5) German businessmen and their wives were massaging suntan lotion into each other's brown backs. (*OED Online*, 1979, J. Raban, *Arabia through the Looking Glass*)

Comparing the nature of the direct objects, *your ego* in (4) and *suntan lotion* in (5), and the nature of the *into* complements, *into thinking that*... in (4) and *into each other's brown backs* in (5), it is observed that while the notion of influencing is relevant in sentence (4), it is hardly so in (5). The *OED* example fails to demonstrate a case where the referent of the direct object is influenced toward some action or, for example, a change of mind or attitude. The usage of (4) involving *massage* is then considered innovative. Meanwhile, the decision concerning *starve* and similar cases is made in order to err on the side of caution and in order not to exaggerate the number of innovative usages.

2 Results and illustrations

When the searches described in Section 1 were carried out in the SUNNOW Corpus and the verbs obtained were subjected to the three-step elimination process on the basis of Bridgeman et al. (1965), Francis et al (1996), and the *OED*, as explicated in Section 1, the set of verbs identified in Table 3.3 were obtained. Occasionally, one and the same sentence came up in two different searches, but each sentence was counted only once.

Table 3.3 Frequencies of innovative matrix verbs selecting the transitive *into -ing* pattern in the SUNNOW Corpus

Frequency	Verbs
3	*frustrate, induce, spark*
2	*influence, spook, terrorize*
1	*alarm, arm-twist, baffle, buttonhole, exhaust, magnetize, motivate, mug, outsmart, prompt, rile, see-juice, serenade, stampede, tame, think, tip, waylay*

Here are some illustrations:

(6) (a) I would have pschawed and harumphed and positively raged when a manager like [a name] then arm-twisted his players into giving up their international careers with barely-disguised threats of the axe.
(b) The word "cow" was never even mentioned. That smokescreen baffled most journalists into thinking there was no story to write about.
(c) The ten-day trip has proved a colourful experience for the usually reserved Charles. On Tuesday he was buttonholed into playing steel drum with a Trinidad calypso band.
(d) Weary, we will have shown the killers that they can exhaust us into compromising ourselves.
(e) We're just trying to limit his scoring and frustrate him into making a mistake.
(f) We're trying to induce the big teams into testing less.
(g) "Like Spurs fans, I got mugged into believing this Adonis of the football world was the be-all and end-all in man-management, tactics and skills."
(h) He bleats that Chancellor Gordon Brown has outsmarted the Prime Minister into retreating over the euro.
(i) When you read that "reduced sugar" label, don't be see-juiced into thinking it's perfect for slimmers.
(j) POP superstar [a name] relived every sexy word of his saucy smash hit It Wasn't Me as he serenaded a gorgeous blonde into "ban**** on the bathroom floor".
(k) VETERAN player-coach John Sheridan came off the bench to spark a managerless Oldham into grabbing a point.
(l) Make sure you don't get stampeded into breaking the rules or buying the wrong sort of ISA.
(m) BROODY blokes can "think" themselves into becoming more fertile, scientists claimed yesterday.

The number of innovative verb types is as high as 24, and the number of innovative tokens is 33. This represents a frequency of 0.73 per million.

A similar study of the British Books Corpus turned up the verbs listed in Table 3.4.

Table 3.4 Frequencies of innovative matrix verbs selecting the transitive *into -ing* pattern in the British Books Corpus

Frequency	Verbs
4	*confuse*
3	*startle, terrorize*
2	*influence, motivate*
1	*annoy, awe, deflect, fight, hassle, hasten, ignite, impel, kick-start, massage, mesmerize, persecute, prompt, shake, shepherd, threaten, tip, trip, zap*

Massage was illustrated above. Here are illustrations of some of the other matrix verbs:

(7) (a) This island has been deserted for twenty-five years and it is my deduction that someone wants it to stay deserted and is deliberately trying to annoy Mr. [a name] into abandoning the project.

(b) Her knowledge awed people into telling her things they would rather have kept to themselves.

(c) ... eventually I managed to confuse him into taking the escape road at Thillois Hairpin so I emerged in a clear lead.

(d) He can, however, tend to err on the cautious side and never likes to be hassled into making a decision.

(e) ... the family's fortunes and the vessel were equally momentarily sunk – but that could be overcome. It had at least hastened Henri into taking over the reins of the firm from his father ...

(f) First impressions may suggest that they are the least emotional of the Moon signs. This comes from the 'grounded' quality of their emotional being, which is not easily ignited into expressing itself in a passionate or exaggerated fashion.

(g) ... colour can influence us into thinking that inferior food that looks attractive also tastes good and is, no doubt, good for us.

(h) ... drugs may be needed to help to re-establish correct thinking patterns and kick-start the brain into producing the normal concentrations of its own chemicals after a long time of underproduction.

(i) Then there is a person known as The Snake, based in Oxford, who started work in 1962 and is motivated into making circles, it is said, by fun, artistic pride and an irrational compulsion.

(j) ... police officers gradually shepherded [a name] into providing a roughly coherent account of the killing ...

(k) [a name] was startled into letting go of the rock.
(l) So his aversion to his own test might have led him to unconsciously punish the insects by unknowingly zapping the generator into producing even more shocks than it normally should have.

The number of innovative verb types is 24. It is also remarkable that several of them were found more than once. The number of innovative tokens is 33. Their frequency is 0.60 per million words.

For the United States News Corpus, the innovative verbs given in Table 3.5 were obtained using the search procedures described in Section 1. There are 23 innovative verb types, and the number of innovative verb tokens is 28. This gives a frequency of 0.74 per million.

Table 3.5 Frequencies of innovative matrix verbs selecting the transitive *into -ing* pattern in the United States News Corpus

Frequency	**Verbs**
3	*strong-arm, threaten*
2	*lock*
1	*confuse, counsel, fast-talk, hammer, keyhole, massage, micro-manage, muscle, rally, shake, shake up, spark, spook, squeeze, stampede, straightjacket, terrorize, tidy up, tranquilize, whipsaw*

Here are some illustrations:

(8) (a) Usually, the listing agent can counsel the seller into completing the sale as agreed.
(b) It represents a 707 percent increase over the three-year, $2.05 M deal Elias was hammered into accepting in 1999.
(c) No longer will students be locked into going to those schools if accepted early.
(d) ... an antitrust suit for $8.2 million against a Lake Forest-based wholesaler accused of muscling retail stores into fixing the price of George Foreman grills.
(e) Lawyers call it the "dynamite charge" because it often shakes up stalemated jurors into finding a defendant guilty or not guilty, rather than acquitting.
(f) Legal experts said yesterday's charges could serve as a vise to squeeze [a name] and [a name] into handing over information about bigger targets at the company.

(g) ... [a name] may have been strong-armed into confessing.
(h) "The primary message of the CD burner is the consumer doesn't want to be straightjacketed into buying a prepackaged CD," Leigh said.
(i) President Bush continued to cajole and threaten the United Nations into acting, saying yesterday that ...
(j) ... where Cher says, "Let's go out there and kick some #." They tidied her up into saying, "Let's go knock them out!"
(k) ... the "drug czar" was supposed to whipsaw the executive into pursuing congressional priorities.

The corresponding list for the United States Books Corpus is given in Table 3.6.

Table 3.6 Frequencies of innovative matrix verbs selecting the transitive *into -ing* pattern in the United States Books Corpus

Frequency	**Verbs**
4	*startle*
3	*socialize*
2	*distract, stress, threaten*
1	*alarm, awe, debate, enjoin, fuck, hook, incentivize, induce, love, magic, mesmerize, misprogram, motivate, pirate, prick, prompt, ridicule, spook, stigmatize, strong-arm*

Here are some illustrations:

(9) (a) I rode like a centaur, I fenced, I learned marksmanship. I honed my intellect as if by doing so I could debate him into loving me ... force him to logic or ethic or morality.
(b) The whole problem of "work incentives" that obsesses current welfare policy dwindles into insignificance when what you're offering is work itself, rather than a dole that people have to then be "incentivized" (that is, bribed) into leaving.
(c) "We should have gone west from Bailemoona instead of south." "Unless the mayor's somehow been magicked into forgetting that [a name] ever came by," said [a name].

(d) In effect, our brain gets misprogrammed into reinforcing an addictive behavior as if we need it to survive.
(e) I wondered whether we were being pirated into paying too much for lodgings.
(f) "He must not be pricked into making moves he cannot later back away from." If two sides, both cursed, struck against each other in civil war, it was perfectly possible for both sides to lose.
(g) Eventually, I turned on the camera, did my very best Spader impression, and prompted Alex into telling some stories.
(h) Many can pinpoint the moment when they were "shushed" or ridiculed into keeping their memories to themselves.
(i) According to conflict theory, society's ruling groups are usually able to socialize others into accepting their notions of deviance.
(j) During the second half of the nineteenth century a vein of ancient knowledge from India and Tibet, tapped by a handful of adventurous Europeans, startled the Western world into realizing that ...
(k) Not only does groupthink stigmatize potential dissenters into conforming, it can also produce a shift in perceptions so that alternative possibilities are simply ruled out without being seriously considered.
(l) He knows about that product and he doesn't want it – or he wouldn't be spending time trying to stress you into giving him unreasonable concessions.
(m) Political leaders who pressure or threaten middleman minorities into hiring people they do not wish to hire, ...

There are 25 innovative verb types in the United States Books Corpus, almost the same number as in the slightly larger British Books Corpus. The number of tokens is 33, and the frequency is 0.66 per million words.

Table 3.7 lists innovative verbs in the British Magazines Corpus.

Here are some illustrations:

(10) (a) ... T-cells (which activate B-cells into producing the antibodies that strengthen the body's immune system) ...
(b) ... who last year arm-twisted Congress into reinventing extradition for them.

(c) THERE comes a point in every HM career when your record company casts a nervous eye over the accounts and cattle-prods you into releasing the Big Emotional Ballad.
(d) [a name], the first Black international grandmaster, coached the Raging Rooks into winning the coveted American Junior High Championship in 1991.
(e) Though notoriously unwilling to play anything from an earlier style, Miles was convinced by Quincy Jones into revisiting Evans's original charts for a one-off performance at the 1991 Montreux Jazz Festival, its 25th anniversary.
(f) Then Thurston turned round and said, "Why don't Free Kitten play as well?" and that motivated us into sitting down to really start practising.
(g) ...the United Nations was shamelessly prostituted into serving the mercenary and aggressive interests of...
(h) Then she remarks that it was always one of her ambitions to traumatize art critics into responding to her work – but maybe not to traumatize them quite that much.

Table 3.7 Frequencies of innovative matrix verbs selecting the transitive *into -ing* pattern in the British Magazines Corpus

Frequency	**Verbs**
5	*arm-twist, terrorize*
4	*confuse, prompt*
3	*kick-start*
2	*activate, bomb, pummel, threaten*
1	*annoy, boss, cattle-prod, chasten, coach, convince, educate, ghettoize, harm, ignite, jog, jump-start, mobilize, motivate, prostitute, regulate, scam, soothe, startle, strong-arm, tantalize, traumatize, yoke*

There are 32 different types of innovative matrix verbs, and the number of tokens is as high as 52. This represents a frequency of 0.99 per million words.

Table 3.8 is a summary of the frequencies of innovative tokens in the five corpora, with the frequencies of innovative tokens, under Fr, normalized per million words.

Table 3.8 Frequencies of innovative tokens in the five corpora

Corpus	Size of corpus	Innovative tokens	Frequency (per million words)
SUNNOW	45,215,200	33	0.73
British Books	54,681,389	33	0.60
United States News	37,970,504	28	0.74
United States Books	50,224,500	33	0.66
British Magazines	52,527,300	52	0.99

Frequencies of innovative usages in Rudanko (2005) were based on the same procedures of elimination as in the present study, but for that investigation a much more limited number of search strings than those listed in (2) were used. Further, the text types examined here differ, in part, from the text types examined in the earlier study. While the present results are thus not directly comparable with those in Rudanko (2005), the finding that innovative usages tend to be more frequent in the text types of newspapers and of magazines than in the text type of books is consistent with the findings of the earlier study. The multiple layers of editing that are often part of book publishing may be a factor tending to lower the incidence of innovative uses in that text type. While newspaper and magazine publishing also involves editing, the process tends to be less intricate than in the case of books. Further, as pointed out by Ian Gurney (personal communication), the text type of books includes not only fiction but non-fiction, and it is presumably the case that the kind of playfulness and verbal boldness that sometimes seems linked to the innovative usages is less likely in the "drier" and less adventurous style that often characterizes non-fiction. At the same time, it should be added that while the differences between the text types are consistent in the material, the differences should not be exaggerated.

We might also examine the nature of innovative tokens from the point of view of what has been claimed to be the negative associations of the transitive *into -ing* pattern and of verbs in the pattern. There is no doubt that there are many tokens in each of the five corpora that are negative in nature. Examples (6a), (7a), (8b), (9d), and (10b) are cases in point.

However, it is of more interest to observe that while the majority of innovative tokens have a negative tinge or semantic prosody of some kind, there are also clear examples of non-negative tokens among them. Such tokens are found in both British and American English.

For instance, there is nothing necessarily negative about the verb *spark* or about a player-coach sparking a team "into grabbing a point" (6k). Nor is there anything negative about drugs kick-starting the "brain into producing the normal concentration of its own chemicals after a long time of underproduction," as in (7h). Similarly, as far as the American English data are concerned, counseling "the seller into completing the sale as agreed" appears to be positive enough, as in (8a). Sometimes apparent "violations" of semantic prosodies have been associated with irony, but these three tokens appear to be free of irony. The evidence of innovative tokens thus suggests that though some are negative in nature, this is not a necessary property of the transitive *into -ing* pattern in present-day English.

3 The transitive *into -ing* pattern as a type of the caused motion construction in the case of innovative verbs

When the view, introduced in Chapter 2, that the transitive *into -ing* pattern represents a type of the caused motion construction is applied to the innovative verbs listed in Tables 3.3 through 3.7, it is helpful first to make a syntactic distinction between at least two types of matrix verbs. The first type includes *prompt*, for instance. The verb has a number of senses, but the sense that is of relevance here is "to incite to action; to move or instigate (a person, etc.) *to do*, or *to* something" (*OED*, sense 1). In this sense the verb commonly occurs with three arguments independently of the transitive *into -ing* pattern. The semantic roles of the arguments are Agent, Patient, and Goal, with the Goal argument being realized by a *to* infinitive complement. Such usages are illustrated in the *OED*, as in *Defer what your passion prompts you to do* (*OED*, 1673, O. Walker, *Of Education*). They are also common enough in the Bank of English material. Here is an example from British Books:

(11) Lee took things at face value but I prompted him to look for subtext. (British Books)

In the usage exemplified by (11), the verb has an established *to* infinitival complement. There are three argument roles involved, similarly to when the verb is used with the innovative *into -ing* pattern.

When the innovative use of *prompt* in (9f) is viewed as an instance of the caused motion construction, it is possible to say that the participant roles of *prompt* in it are Prompter, Prompted, and Action. These

participant roles are then matched with the argument roles of the caused motion construction, Agent, Patient, and Goal.

There are a number of other innovative verbs in Tables 3.3 through 3.7 that are similar to *prompt* in that they likewise select three arguments independently of the transitive *into -ing* pattern, with semantic roles that are similar to the roles found in the *into -ing* pattern. In particular, the verbs *convince*, *influence*, *enjoin*, *incentivize*, and *motivate* can be mentioned.

It is also worth observing that the third participant role with all the verbs listed is ordinarily realized by a *to* infinitive complement. Such *to* infinitival complements represent established usage, and for four of the five verbs, *convince*, *enjoin*, *incentivize*, and *motivate*, examples can be found in the *OED*. For *influence*, the *OED* does not offer an example, but the corpora do. Here are illustrations, the first four from the *OED* and the remaining one from the corpora:

(12) (a) Barril's overtures failed to convince him to come out of hiding. (*OED*, 1983, *Observer*)
(b) The pope ... advised and even enjoined him to return to his duties. (*OED*, 1883, Froude, *Short Stud.*)
(c) Betamax owners had been "incentivized to zip right past the commercial". (*OED Online*, 1987, *New Yorker*)
(d) Unnamed institutional investors would be motivated to sink equity into Canadian. (*OED Online*, 1996, *Financial Post*, Canada)
(e) He has influenced her to hold back – make sure she does the right thing. (British Magazines)

The emergence of the innovative *into -ing* pattern with such verbs may be seen in the context of the general spread of *-ing* forms, both prepositional and "straight," at the expense of *to* infinitival complements that has been discussed in the literature (see Rohdenburg 2004, 2006). The transitive *into -ing* pattern, of course, represents a type of prepositional *-ing* form construction and may therefore be seen as a manifestation of the more general trend.

In Chapter 2, it was pointed out that the sentential *into -ing* pattern differs from the nominal Verb NP *into* NP pattern in a systematic way with respect to meaning. However, the *into -ing* construction may be viewed as a nominal clause, and it is therefore natural to expect the class of matrix verbs selecting one of the patterns to be largely coextensive with the class of matrix predicates selecting the other. Indeed, this

kind of correlation is reminiscent of some other constructions in the language where a prepositional *-ing* form has emerged as an alternative to the *to* infinitival pattern of complementation, especially in the case of the *to -ing* pattern (see Rudanko 1998a, 2006).

With respect to the six verbs that belong to the type of *prompt* here, the expectation on such general theoretical grounds is that they might also be found with *into* NP complements, or at least that they might be conceivable with such complements. This expectation is fulfilled to a remarkable extent, for examples of the type of (13a–d) are indeed attested in the corpora.

(13) (a) I HAVE had the desire to write on the following subject for a long time and reading the letter from Mr [a name] last week has prompted me into action. (British Magazines)
(b) At last he convinced himself into courage, and he could speak. (British Books)
(c) If we are to have the kind of pastoral leadership that can motivate church members into the kinds of mid-range programmes that we need to affect communities, and if... (United States Books)
(d) ... in order to manipulate or influence other people into certain actions. (United States Books)

The present author has not found examples of this type for *enjoin* or *incentivize*, but they seem conceivable.

The association between the sentential *into -ing* pattern and the non-sentential *into* NP pattern is worth pointing out here because it may be relevant to understanding why the primary causative *cause* is not found with the *into -ing* pattern in the material. This verb is of the same semantic type as *prompt* in easily selecting *to* infinitive complements involving object control, as in (14):

(14) She has caused me to question some of my deepest prejudices. (British Books)

However, an *into* NP construction seems inconceivable for *cause*:**She caused me into a certain action*. Given the status of the lower clause in the *into -ing* pattern as a nominal clause, it is then natural that the matrix verb *cause* should not select an *into -ing* complement either.

A remark may also be inserted about the matrix verb *occasion* in this connection. This verb is found with *to* infinitive complements in a causative use with the sense "to cause (a person or thing) *to* be or *to* do

something" (*OED Online*, sense 1.b), as in *An attack of small-pox occasioned him to lose his situation* (1885, *OED Online*, *Dictionary of National Biography*). However, an *into* NP and an *into -ing* complement are equally inadmissible with this verb. For instance, to use sentence (14) as a point of departure, both **Her remark occasioned me into a certain action* and **Her remark occasioned me into questioning my prejudices* are ill formed. This provides further evidence suggesting an association between the sentential *into -ing* pattern and the non-sentential *into* NP pattern.

For the second syntactic type, *ridicule* and *startle* may be used as examples. Such verbs are commonly found in sentences of the type of (15a–b):

(15) (a) Viewers might think we were ridiculing the very customers we were trying to gain with the Macintosh Office. (United States Books)
(b) The bleeps are easy to hear in the front of the car but won't startle the driver. (British Magazines)

There are two arguments involved in sentences of the type of (15a–b). One of the arguments designates the Agent, as in (15a), or the Source, as in (15b), of the action, and the other designates the Patient or the Undergoer of the action, as in both of (15a–b).

Innovative verbs of the second type thus typically have uses where they take two arguments. Verbs of this type are much more frequent in the material than verbs of the type of *prompt*, in terms both of verb types and of innovative verb tokens. We might, for instance, list *confuse*, *startle*, *terrorize*, *tip*, *annoy*, *awe*, *deflect*, *fight*, *hassle*, *hasten*, and so on from Table 3.4, and it is possible to say that the vast majority of the innovative verbs in all five tables are of this syntactic type.

As was the case with innovative verbs of the first syntactic type, it is generally possible to imagine these verbs with an *into* NP complement as well. Indeed, it is possible to find authentic examples of such uses, sometimes even in the corpora under review, sometimes in other parts of the Bank of English Corpus. Here are some examples:

(16) (a) The idea is to "annoy" conglomerates into a dialogue ... (Bank of English)
(b) ... whose state of mind was calculated to awe the Indians into belief in him as a messenger of supernatural powers. (British Books)
(c) ... whose zebra-print underwear and calculated seduction confuses the boy into bed. (Bank of English)

(d) ...was afraid if she lifted her sketchbook she would startle the butterflies into flight. (United States Books)
(e) ...he used the militia as irregulars to attack isolated parties of British troops and to terrorize loyalists into quiescence. (British Books)

For the sentential pattern, here are examples of *ridicule* and *startle* in the pattern, modified from the authentic sentences given above (9h and 7k):

(17) (a) He ridiculed them into keeping their memories to themselves.
(b) The sound startled Jack into letting go of the rock.

When (17a), for instance, is viewed as an instance of the caused motion construction, it is possible to say that the matrix verb *ridicule* has its ordinary sense in the sentence, which is "to treat with ridicule or mockery; to make fun of, deride, laugh at" (*OED*, sense 2), and that its participant roles are Ridiculer and Ridiculed. The caused motion construction, for its part, involves three arguments, with the semantic roles of Causer, Patient, and Goal once more. The Ridiculer participant role of the verb is matched with the Causer argument role of the construction, and the Ridiculed participant role of the verb is matched with the Patient argument role of the construction in a straightforward way. The third argument role involved in sentence (17a) is not matched with a participant role of the verb; instead it is supplied by the construction.

Recalling the analysis of the caused motion construction in terms of the verbal and constructional subevent and of the specific relation between them, as introduced in Chapter 2, it is possible to say that in (17a) the verbal subevent is that of ridiculing and the constructional subevent is that of causing (someone) to move into an action or state. Part of the meaning of sentence (17a) is then along the lines of "he caused them to move into keeping their memories to themselves by means of ridiculing them."

In the case of (17b), the third argument is similarly supplied by the caused motion construction, and the verbal subevent again expresses the "means by which the constructional subevent takes place," to quote Goldberg and Jackendoff (2004, 538) once more.

It is for this class of verbs that Goldberg's notion of a construction is especially useful, because employing the notion makes it possible to permit the verb in question to retain its normal meaning, with the

meaning of the sentence being an amalgam of the meanings of the construction and of the verb.

Consider the verb *ridicule* as an example to illustrate what this means. In view of the "ordinary" use of the verb, as in (15a), and of the use of the verb in the transitive *into -ing* pattern, it would be a conceivable approach to the analysis of the verb to suggest that there should be two distinct senses of the verb: "make fun of," relevant to (15a), and "induce someone into doing something by means of making fun of him or her," relevant to (17a). In this approach it would then presumably be necessary to propose similar double entries for all of the numerous innovative verbs of the type of *ridicule* in Tables 3.3 through 3.7.

However, rather than positing such double entries, it is more elegant to appeal to the notion of a construction for the verbs in question and to say that the relevant part of the meaning of a sentence such as (17a) is an amalgam of the meanings of the matrix verb and of the caused motion construction.

What recommends the construction grammar approach in particular is that it makes it possible to form generalizations about the type of verb that is likely to be found as selecting the transitive *into -ing* pattern. The verbs of the pattern of *ridicule* make up the vast majority of innovative verbs in the tables, and it is possible to say that the meanings of these verbs do not exhibit random variation. On the contrary, it appears that the verbs in question can be characterized on the basis of the semantic elements and concepts that have already been identified in the literature as salient to the analysis of matrix verbs that have been conventionally associated with the *into -ing* pattern in English. Here, the analyses of Francis et al. (1996) and Rudanko (2000, 66) may be consulted. A number of semantic classes have been established in these studies, and semantic characterizations of innovative matrix verbs are provided in Table 3.9.

Given that the verbal subevent characteristically expresses the means by which the constructional subevent comes about or takes place, the task of analyzing the semantics of innovative verbs of the syntactic type of *ridicule* amounts to specifying the elements of meaning involved in expressing the means.

In Table 3.9, characterizations of these elements are provided for innovative matrix verbs, drawing mainly on Rudanko (2005). As for illustrations, it is possible here to make use of the different text types presented for both British and American English, and the text types of newspaper English and books can be considered and compared in both regional varieties.

There is no one-to-one correspondence between semantics and syntax, and it is not being claimed, of course, that the verbs listed in the

Table 3.9 Semantic classes of innovative matrix verbs

(NP_1 causes NP_0 to perform S_2)
by means of exerting force or pressure, generally understood metaphorically
SUNNOW: *arm-twist*, *buttonhole*, *waylay*; 3 tokens
United States News: *strong-arm*, *lock*, *hammer*, *massage*, *muscle*, *shake*, *shake up*, *squeeze*, *straightjacket*, *whipsaw*; 13 tokens
British Books: *fight*, *hassle*, *hasten*, *kick-start*, *massage*, *persecute*, *shake*, *zap*; 8 tokens
United States Books: *fuck*, *hook*, *prick*, *socialize*, *stress*, *strong-arm*; 9 tokens
by means of arousing fear or perplexity
SUNNOW: *alarm*, *rile*, *spook*, *stampede*, *terrorize*; 7 tokens
United States News: *confuse*, *spook*, *stampede*, *terrorize*, *threaten*; 7 tokens
British Books: *annoy*, *awe*, *confuse*, *startle*, *terrorize*, *threaten*; 13 tokens
United States Books: *alarm*, *awe*, *spook*, *startle*, *stigmatize*, *threaten*; 10 tokens
by means of engaging in deception or trickery
SUNNOW: *baffle*, *mug*, *outsmart*; 3 tokens
United States News: *fast-talk*; 1 token
British Books: *deflect*, *mesmerize*, *trip*; 3 tokens
United States Books: *magic*, *mesmerize*, *misprogram*; 3 tokens
by other specific means
SUNNOW: *exhaust*, *frustrate*, *magnetize*, *see-juice*, *serenade*, *spark*, *tame*, *think*, *tip*; 13 tokens
United States News: *counsel*, *keyhole*, *micro-manage*, *rally*, *spark*, *tidy up*, *tranquilize*; 7 tokens
British Books*: ignite*, *shepherd*, *tip*; 3 tokens
United States Books: *debate*, *distract*, *enjoin*, *love*, *pirate*, *ridicule*; 7 tokens
by unspecified means
SUNNOW: *induce*, *influence*, *motivate*, *prompt*; 7 tokens
United States News: zero tokens
British Books: *impel*, *influence*, *motivate*, *prompt*: 6 tokens
United States Books: *incentivize*, *induce*, *motivate*, *prompt*; 4 tokens

classes are synonymous with each other. Even so, there are intuitions about shared class membership, and to some extent they can be supported by semantic roles or other semantic considerations. For instance, in the case of verbs of the class "by means of arousing fear or perplexity," the semantic role of the direct object argument is typically that of Experiencer, and this feature seems specific to this class. As for the class "by means of exerting force or pressure," the semantic role of the direct object is that of Undergoer, and most of the verbs in the class express some physical action in their literal uses, but with the transitive *into -ing* pattern, these verbs have a more figurative sense. The figurative element can be spelled out in the relevant gloss. For instance, part of the

meaning of a sentence such as *He arm-twisted Congress into reinventing extradition*, modified from the authentic example above, is along the lines of "he moved Congress into reinventing extradition by means of figuratively arm-twisting Congress" or "he moved Congress into reinventing extradition as if by arm-twisting Congress."

A comment may be added on *socialize*. This verb, along with *stigmatize*, has been accommodated in the "by means of exerting force or pressure" class. The relevant example was of the form ... *society's ruling groups are able to socialize others into accepting their notions of deviance*, slightly modified from (6h). The example of *stigmatize* is of the same type, and these verbs represent an extension of the class from physical to social pressure.

The labels characterizing the semantic classes are open to further investigation, and not all of them necessarily carry universal approval. However, the main outlines of the classes seem fairly clear, and it is possible to make one or two comments on them.

First, in the light of the classes of innovative verbs identified here, it does not appear that the class of verbs expressing causation by deception is a very productive one in present-day English. In contrast, the class of verbs expressing the exertion of force or pressure and that of verbs expressing the arousing of fear or perplexity are considerably larger in the corpora. While the overall numbers of verbs are too low to permit claims of statistical significance, the findings of the present study are nevertheless suggestive. In particular, it appears that the *into -ing* pattern is especially comfortable with verbs expressing force or pressure. Further, the findings suggest that such verbs expressing force or pressure tend to emerge very easily as innovative matrix verbs selecting the transitive *into -ing* pattern in American newspaper English.[1]

From a broader perspective, the semantic classes relating to the nature of the matrix verb make it clear that the large majority of innovative verbs, as regards both verb types and verb tokens, are verbs of flavored causation, with the means of causation, or the nature of the verbal subevent, expressed in a fairly specific way. All the semantic classes, with the exception of the last one, are of this type. Given the abundance of verbs of flavored causation, it is of interest to recall a pattern of covariation discussed in Chapter 2. This has to do with a tendency for matrix verbs of certain semantic types to co-occur with certain types of lower predicates.

As noted in Chapter 2, one aspect of the co-variation in question, originally pointed out in Rudanko (2000, 84), concerned matrix verbs expressing deception, in that with such verbs, the lower verb tended

to be one of believing or thinking or at least one with an Experiencer subject. As regards innovative verbs, the same kind of regularity is observed, for instance, in sentence (6b).

Another aspect of the co-variation, also originally pointed out in Rudanko (2000, 84) with respect to non-innovative verbs, was that matrix verbs expressing force or pressure tended to co-occur with a different class of lower predicates. Instead of selecting predicates with Experiencer subjects, such matrix verbs tend to select lower verbs with Agent subjects. This generalization makes an obvious prediction with respect to the innovative verbs considered here, and we may, for instance, check it in relation to the largest single class of innovative verbs expressing force or pressure, the 13 tokens of such verbs found in the United States News Corpus. It is observed that the lower clauses are indeed usually of the agentive type, in accordance with the generalization. For instance, it is possible to cite *hammered into accepting the deal* (8b), *muscling retail stores into fixing the price* (8d), and *straightjacketed into buying a prepackaged CD* (8h).

A comment may also be made on the last semantic class, of verbs that are not specific with respect to the means of causation. As is clear from the numbers of verb types and verb tokens, such verbs appear to be more frequent with the transitive *into -ing* pattern in British English than in American English. This suggestion is investigated further in Chapter 4.

4 Introducing a contextual construction

There is one further distinction to be made relating to the nature of matrix verbs listed as selecting the pattern above. It was noted above that some of the matrix verbs, including *prompt*, select three arguments independently of the transitive *into -ing* construction, and other matrix verbs, including *ridicule* and *startle*, commonly select two arguments independently of the transitive *into -ing* pattern. However, the investigation also brought to light the verb *see-juice*, cited in (6i). Here is the larger context of the token encountered, given as (6i'):

(6) (i') Fruit juice: 40 per cent. Calories 40 per 50 ml serving. Tastes most like fresh orange juice but is quite high in calories. When you read that "reduced sugar" label, don't be see-juiced into thinking it's perfect for slimmers. Go easy. (SUNNOW)

The verb *see-juice*, as far as the present author is aware, is a totally new coinage, not to be found in any dictionary. It is a playful word, perfectly appropriate in newspaper language where the author wishes to be witty

and maybe provocative, to arouse the attention of the reader. The word can appropriately be read as a play on *seduce*, but it also has a *juice* part, and that is related to the context of the discussion of juice drinks.

The highly contextual nature of *see-juice* brings to mind Herbert Clark's (1996, 79) term "contextual construction," though it does not precisely correspond to his use of the label. Clark applied the term, for instance, to "indirect descriptions," as in *I bought a Henry Moore*, and to denominal verbs, as in *She Houdini'd her way out of the closet*, and commented that contextual constructions "have in principle an infinity of potential non-conventional interpretations, each built around a conventional meaning of the word or words it is derived from" (1996, 78). In contrast, *see-juice* is a totally new coinage, but if the label "contextual construction" is understood in a broader sense as evoking an "appeal to context – to the participants' current common ground" (1996, 78) for its interpretation, it seems possible to apply the term here. It is an expressive label that highlights the role of context in the interpretation of the coinage, and the ease with which the new coinage is understood in its context testifies to the innovative potential of the transitive *into -ing* pattern and to the salience of the construction grammar analysis of the pattern.

It may be added with respect to *see-juice* that not only is it not found in any dictionary at present, but it is unlikely ever to be found in dictionaries of English. This is again because of the highly contextual nature of the coinage. From a theoretical point of view, the word illustrates the need to make a distinction between innovation and propagation in the study of language change (on the distinction, see Croft 2000, 98), which has sometimes been denied in the literature. The coinage is innovative, but because of its narrowly contextual nature, it is unlikely ever to be propagated or conventionalized in the language. In contrast, while the verbs listed in Table 3.9 may be innovative today, it is not impossible to visualize some of them becoming conventionalized with the transitive *into -ing* pattern in the language. Verbs found multiple times, including *terrorize*, are probably the best prospects in this regard.

In a follow-up to the discussion of *see-juice*, it seems appropriate to relax the focus of the present study on the four subcorpora of the Bank of English Corpus and recall an innovative verb occurring in the British National Corpus that was originally pointed out in Rudanko (2000, 81–83). This is the verb *Tillerize* in (18), which includes the larger context of the token:

(18) As in all rehearsal studios there were large mirrors from ceiling to floor enabling the Girls to see their mistakes. Their bodies generated so much heat that the mirrors steamed up. Jennie did not

> realize the purpose of the mirrors and would shout, "Don't be looking at yerself, don't be admiring yerself in the mirror!" If the Girls were Tillerized into thinking of nothing but the Tiller organization, so was Jennie. A line ... (BNC B34)

As far as the present author is aware, *Tillerize* is not found in any dictionary of English. It occurs elsewhere in the same text:

(19) Anne Liddy, the clog dancer, only worked for John for a couple of seasons, so she had not been Tillerized. (BNC B34)

In (19), the verb selects two arguments. In the passive sentence, the Agent argument is not expressed, and the Undergoer argument is in the subject position. The meaning of the verb in (19) is along the lines of "make a person behave in accordance with the practices and standards of the Tiller organization" or "inculcate the values of the Tiller organization into (someone)."

The hypothesis that the transitive *into -ing* pattern represents a type of the caused motion construction supplies a ready basis for interpreting (18) and similar sentences with *Tillerize*. If we turn the sentence into the active and simplify it by removing nonessential elements , we might consider (20):

(20) They Tillerized the Girls into thinking of nothing else.

In the Goldbergian framework, sentence (20) can be glossed along the lines of "they moved the girls into thinking of nothing else by inculcating the values of the Tiller organization into them." Once more, a construction grammar approach to the transitive *into -ing* pattern makes it possible to avoid postulating two senses for the verb, one for "ordinary" uses with two arguments, as in (19), and one for its use with the *into -ing* pattern, as in (18). The verb is a creative coinage as a denominal verb, and it represents a type of contextual construction that is already present in Clark's (1996, 79) schema. The applicability of the construction grammar approach to such a one-off form further justifies the approach in the analysis of innovative verbs.

5 Summary and concluding observations

The investigation in this chapter focused on innovative matrix verbs selecting the transitive *into -ing* pattern in current English. To identify

such verbs, Bridgeman et al. (1965), Francis et al. (1998), and the *OED* were used as benchmarks. It was observed that innovative constructions were found in the text type of British and American books, but that they were even more frequent in British and American newspaper English. Their frequency was even higher in the text type of British magazines.

The investigation then turned to the analysis of verbs that were considered innovative in the pattern. It was observed that such verbs included some verbs, including *influence* and *prompt*, that have hitherto been associated with *to* infinitive complements in the literature. However, the largest class of innovative verbs was observed to consist of verbs that more commonly occur with two argument roles. From a Goldbergian type of construction grammar analysis, it is possible to say that the caused motion construction, viewed as a subtype of the generic class of resultatives, supplies the third argument role. The semantics of the sentence can then be viewed on the basis of the two-event analysis that Goldberg and Jackendoff (2004) have proposed for resultatives. The verbal subevent thus provides the means for the constructional subevent. This analysis has the advantage that it is possible to say that the matrix verb preserves its normal meaning and there is no need to postulate polysemy.

The constructional analysis of innovative usages involving the transitive *into -ing* pattern does not by itself fully and automatically predict which matrix verbs are capable of participating in the caused motion construction. For instance, the primary causative *cause* is of interest here. It is found independently both with two arguments, as in *An explosion caused a fire*, and with three arguments, as in *She has caused me to question my deepest prejudices* (Bank of English, British Books), and it is similar to *prompt* in these respects. However, while *prompt* exhibits alternation between *to* infinitival and *into -ing* complements involving object control, *cause* does not. It was suggested above that there might be a grammar internal explanation for the failure of *cause* to participate in the alternation, for unlike *prompt*, *cause* does not permit *into* NP complements either.

Overall, it may be hoped that the present investigation shows how the study of innovative matrix verbs sheds light on the way that the transitive *into -ing* construction is expanding in present-day English. Corpus evidence, it is argued here, is essential in identifying innovative matrix verbs, and the present study provides illustrations of many such verbs. Further, the present study demonstrates how construction grammar, sometimes supplemented with additional principles, can help us

understand and interpret the innovative usages that are encountered in this area of English grammar. In particular, the construction grammar approach makes it possible to distinguish the verbal and constructional subevents and to say that the verbal subevent expresses the means by which the constructional subevent takes place. This then leads to generalizations about typical senses of innovative matrix verbs selecting the pattern in current English, and such generalizations amount to predictions about the types of verbs that may select the transitive *into -ing* pattern in innovative ways in the future.

4

Emergent Alternation in Complement Selection: The Spread of the Transitive *into -ing* Construction to Verbs of Unflavored Causation

1 Introduction

As was observed in Chapters 2 and 3, numerous verbs of flavored causation select the transitive *into -ing* pattern in present-day English, and as further observed, the pattern can be found in usages that are not yet included in works of reference, and indeed in usages that are unlikely ever to be included in works of reference.

It is the purpose of this chapter to investigate matrix verbs expressing unflavored causation that select the transitive *into -ing* pattern. The argument put forward is that the pattern is currently spreading beyond verbs expressing different types of flavored causation to a new semantic class, verbs of "unflavored" or neutral causation. Some illustrations of matrix verbs of unflavored causation were given in Chapters 2 and 3. Here is an additional illustration:

(1) ... a witness may be unduly influenced into giving untruthful evidence. (Bank of English)

Using the subevent terminology introduced in Chapter 2, it is possible to say that in the case of a verb such as *influence*, the specific nature of the verbal subevent is not expressed.

Further, it is argued in this chapter that the spread involves a trend that is to some extent innovative from a syntactic point of view. The

emerging pattern thus offers an opportunity to observe a grammatical change at its initial stage.

A number of verbs of unflavored causation are examined in Section 2. The data come from six corpora of the Bank of English Corpus, three each for British English (BrE) and American English (AmE). The corpora in question for British English are British News, abbreviated as BrN, with data from national British newspapers; British Books, abbreviated as BrB; and Spoken British English, abbreviated as BrSp. The corresponding corpora for American English are United States News, USN, with data from a number of newspapers, including the *New York Daily News* and the *Philadelphia Inquirer*; American Books, USB; and Spoken American English, USSp. These corpora represent very recent usage, and they are all of a reasonable size. The size of each corpus is given in Table 4.1. The total number of words in the British English corpora is thus approximately 144 million words, to round the figure to the nearest million, and the corresponding number for American English is approximately 117 million words. The searches were conducted in 2005, and the information about the size of the corpora refers to that time.

Table 4.1 The list of corpora used and their sizes

Corpus	**Size**
British News, BrN	50,838,693
British Books, BrB	54,681,389
Spoken British English, BrSp	38,679,557
United States News, USN	37,970,504
United States Books, USB	50,224,500
Spoken American English, USSp	29,155,033

The purpose of this chapter is to investigate the incidence of verbs of unflavored causation in the six matching corpora representing both British and American English. Some comment is also provided on the nature of the transitive *into -ing* pattern from a semantic point of view when the pattern is selected by such verbs of unflavored causation and on the nature of the matrix verbs themselves.

2 Verbs of unflavored causation selecting *into -ing*: illustrations and results

The manner-neutral verbs investigated here are given in (2):

(2) *impel*, *induce*, *influence*, *lead*, *motivate*, *prompt*, *stimulate*.

When we examine the relevant senses of these verbs in the *OED*, we observe that the glosses given are often at least partly interlocking. For example, part of the relevant gloss for *induce* is given in (3):

(3) to lead (a person), by persuasion or some influence or motive that acts upon the will, *to* ... some action, condition, belief, etc. (*OED*, part of the definition of sense 1)

Part of the relevant sense of *lead* is then glossed in the *OED* as "to induce *to* do something" (*OED*, part of sense 5), with the additional remark "said both of persons and motives, circumstances, evidence, etc."

For present purposes, it is important to observe the "some other influence or motive that acts upon the will" part of the definition of the sense of *induce*, for it is indicative of a difference between verbs of flavored causation, for instance, *frighten*, *badger*, and *fool*, featured in Chapter 2, on the one hand, and those in the set of (2), on the other: in the case of the former sets of verbs, the means of influencing is fairly narrowly defined whereas the senses of the verbs in (2) are broader or less determinate, leaving the nature of the verbal subevent unspecified. The difference is not absolute, but still discernible.

The list of verbs in (2) has been compiled on the basis of the semantics of verbs of influencing. However, it should be added that there are verbs of manner-neutral influencing and causation that are not included in the set of (2). Above all, the verb *cause* itself is a prototypical verb of causation, but it is not included for reasons discussed in Chapter 3. The list of verbs in (2) is offered as a first approximation to a reasonably interesting list of manner-neutral verbs, and it is hoped that subsequent work will build on it.

There is also an important syntactic consideration that is of relevance when examining the verbs in (2). This emerges from the gloss for *lead* quoted above: "to induce *to* do something" (*OED*, part of sense 5). The two verbs *induce* and *lead* have been traditionally associated with *to* infinitive complements as far as sentential complements are concerned. Here is an illustration from the British Books Corpus:

(4) These experiences have influenced me to give a broad mind to an argument, often at the risk of being called "ecumenical." (UK Books)

Influence selects three arguments in (4). The semantic roles of the three arguments involved are those of Agent, Undergoer or Patient, and Goal, with the Goal argument being sentential. The three arguments are the

same as those found in the transitive *into -ing* pattern, as in sentence (1). Further, both the pattern of (1) and that of (4) involve object control. Similar structures can be found with all the verbs listed in (2).

Before a discussion of *into -ing* complements, it is of interest here to examine and to illustrate *to* infinitive complements involving object control with the seven verbs listed in (2), in order to gain a sense of the nature of the *to* infinitive pattern with the seven verbs and in order to make the study of alternation between *to* infinitive and *into -ing* complements possible. For this purpose, the three British English corpora, on the one hand, and the three American English corpora, on the other, were examined for each verb, even if only with one search string. To use *induce* as an example, the search string used was of the following type:

(5) *induced*+1,1*to*+VBI

The numbers in the string indicate a string of one arbitrary word between *induced* and *to*. The symbol VBI in the search string is the symbol for the infinitival verb form in the Bank of English Corpus.

The search string is quite specific, ensuring that there is a minimum number of irrelevant tokens. Such a search string is appropriate in the present case, for the searches are made in order to substantiate the existence of the pattern with the seven matrix verbs and in order to gain a sense of the frequency of the pattern with the verbs.

The results produced by the type of search string specified in (5) are given in Table 4.2.[1] In the table, the numbers to the left of the slashes give the raw numbers, and those to the right of the slashes give the normalized frequencies calculated per one million words.

Table 4.2 *To* infinitive complements of the seven verbs

Verb	**BrE corpora**	**AmE corpora**
impel	25/0.17	9/0.08
induce	64/0.44	38/0.32
influence	13/0.09	11/0.09
lead	985/6.84	1029/8.79
motivate	37/0.26	56/0.48
prompt	296/2.06	314/2.68
stimulate	12/0.08	9/0.07

Influence was illustrated in (4). Here are illustrations of the other six verbs with *to* infinitive complements.

(6) (a) One of the threats which had impelled Franco to initiate the contact was now dissipated. (British Books)
(b) What had induced her to leave like that, without so much as a word? (British Books)
(c) His maverick curiosity led him to perform Ives and Varese when no other conductor was looking at their works. (British News)
(d) Frustration motivated [a name] to act, ... (British News)
(e) Anne's remark prompted me to mention other cases of separation anxiety I have seen in the course of my work. (United States Books)
(f) ... rural bankers indirectly stimulated farmers to expand their output beyond current demand ... (United States Books)

Table 4.2 indicates that *to* infinitival complements involving object control are easily available for all seven verbs in both British and American English. *Impel* appears to be more frequent with *to* infinitival complements in British English than in American English, and *motivate* appears to be more frequent in American English than in British English, but for most of the other verbs, the normalized frequencies are not very different between British and American English. Even for *impel* and *motivate* there are tokens of the construction in both British and American English.

For the transitive *into -ing* pattern, it may be observed that five of the verbs are innovative in the pattern, using the definition given in Chapter 3. *Lead* and *stimulate* are the exceptions, for the former is listed in Bridgeman et al. (1965), and the latter is listed in Francis et al. (1996). However, the *OED* does not mention the transitive *into -ing* pattern as a feature of any of the verbs,[2] and by the *OED* criterion, any instances found are innovative from a syntactic point of view. Under such circumstances, it is also appropriate to use more than one search string. Given that each of the seven verbs has four different forms, four search strings for each verb recommend themselves. An additional requirement is that the search strings should allow for a reasonable number of words to intervene between the matrix verb and the preposition *into*.

Taking such desiderata into account, four searches were conducted for each of the seven verbs in each of the six corpora, that is, 168 searches in all. Using *induce* as an example, the search strings used were as in (7a–d):

(7) (a) *induce*+0,3*into*+VBG
(b) *induced*+0,3*into*+VBG
(c) *inducing*+0,3*into*+VBG
(d) *induces*+0,3*into*+VBG

The numbers after the forms of *induce* mean that the search string allowed for a sequence of zero to three arbitrary words between the verb and the form *into*. For its part, *into* was immediately followed by the *-ing* form of a verb.

Here the question may be asked whether the open terms should have been "1,3," instead of "0,3," since the direct object of *induce* and of the other verbs is normally not omissible. However, to choose such a string would have been misguided since account needs to be taken of movement operations in sentences. For instance, the direct object may be questioned, as in *Whom did they induce into complying with the order?* If the first term of the open part of the first search string had been one rather than zero, this type of sentence would have been excluded, which would have been inappropriate.

With respect to the second string, zero is also needed because of passive sentences such as *He was induced into complying with the order.*

Table 4.3 gives the search results for the individual verbs in the six corpora. The normalized frequencies are calculated per million words in each corpus.

Table 4.3 The seven verbs with the transitive *into -ing* pattern in the six corpora

Verb	**BrN**	**BrB**	**BrSp**	**USN**	**USB**	**USSp**
impel	1	1				
induce	1				1	1
influence	3	2	2			
lead	13	14	5	1	8	1
motivate		2			1	1
prompt	3	1	4		1	
stimulate	3	4	5			
total	24	23	16	1	11	3
normalized frequency	0.47	0.42	0.41	0.05	0.21	0.10

Illustrations from British English and American English are given in (8a–g) and (9a–d) respectively.

(8) (a) ... just as Herman Melville's seaman Budd is unable to respond to a slander and is thereby impelled into striking an officer. (BrB)
(b) ... we don't need to induce them into buying things. (BrN)
(c) I'm seeing more and more if you want to influence heads into saying ... (BrSp)
(d) Mm well that's sort of in a sense led me into saying well you know on balance will you be sorry or glad for different kinds of reasons that ... (BrSp)

(e) The Stasi controllers targeted people they thought had a predisposition to collaborate then motivated them into believing they were doing something worthwhile. (BrB)
(f) The moratorium suggested by the Lithuanian leadership is a careful compromise, going far enough they hope to prompt President Gorbachev into opening talks but not so far that it looks like a capitulation ... (BrSp)
(g) Trailers are designed to provoke a reaction. Ideally, the reaction should be to stimulate people into wanting to find out more about the film. (BrN)

(9) (a) They wanted to induce him into cooperating along several lines, to help them to legitimize the invasion. (USSp)
(b) You were mirroring a phenomenon that was happening in many gay lives across America during that time – an explosion of self-invention. Did this somehow lead you into studying the Native America berdache? (USB)
(c) Somehow, I think it has now got into a stage or has motivated the Indians into thinking they ought really to be playing a political role. (USSp)
(d) Alex also called some of her girlfriends in Los Angeles to get additional material. Eventually, I turned on the camera, did my very best Spader impression, and prompted Alex into telling some stories. (USB)

The results of the investigation, as presented in Table 4.3, thus show that manner-neutral matrix verbs are capable of selecting the transitive *into -ing* pattern in present-day English.[3] At the same time, they also provide a picture that runs counter to the generally accepted hypothesis about grammatical change currently taking place in British and American English. The hypothesis may be summed up as:

> the generalization (commonly recognized at various levels of language structure) that many changes in recent English have been led by American English, with British English following in its wake, rather than vice versa ... (Leech 2003, 227)

While it is recognized that American English does not invariably lead British English in the area of grammatical change,[4] the generalization that Leech formulates does often hold. However, in the area of incipient change involving the transitive *into -ing* pattern with verbs of unflavored influencing, the present findings suggest that it is British English that is in the vanguard of change.

To be sure, *impel*, *induce*, and *motivate* should be discounted here, because of the extremely low frequency of these verbs in the British English and American English corpora. The tokens found illustrate the possibility of the transitive *into -ing* pattern with the verbs, but it would be dubious to base a comparative generalization about the two regional varieties on one or two tokens of the pattern in a body of corpus material that runs to over 100 million words for both varieties.

The other four verbs – *influence*, *lead*, *prompt*, and *stimulate* – afford a higher number of tokens in the material, and therefore they lend themselves to further consideration here. These manner-neutral verbs are all attested with the *into -ing* pattern in British English, and it is also worth noting that for these four verbs, there are tokens found in all of the three British English corpora. This means that the tokens cannot be attributed to one speaker or one author only, and that different texts and different text types are represented in the case of each verb. In contrast, considerably fewer tokens of the transitive *into -ing* pattern were found with the four verbs in the American English corpora.

One measure of the difference is obtained if normalized frequencies are calculated for the four verbs in the relevant pattern in British and American English. For British English the normalized frequency is 4.2 per ten million words and for American English the corresponding figure is 0.94.

It is also helpful to calculate chi-square values, using the raw frequencies of the four verbs in the British English and American English corpora, to assess whether the differences observed are statistically significant. The values are given in Table 4.4.

Table 4.4 Chi square values for *influence*, *lead*, *prompt*, and *stimulate*

Verb	**BrE**	**AmE**	**chi-sq.**	**Significance**
influence	7	0	5.69	p <. 05
lead	32	10	7.50	p <. 01
prompt	8	1	4.14	p <. 05
stimulate	12	0	9.75	p <. 01

In the case of *influence* and *prompt*, the numbers of tokens are too low for the results to be anything but suggestive. However, in the case of *lead* and *stimulate*, the results are shown to be statistically significant. Some caution is naturally called for even in the case of *lead* and *stimulate* because the frequencies are still rather low. However, low frequencies are to be expected for an innovative usage, and the present figures substantiate the incipient emergence of the transitive *into -ing* pattern with

manner-neutral verbs in the language. More specifically, the present findings testify to the innovative resources of British English in this area of the system of English predicate complementation.

The verbs of unflavored causation may also be examined in their semantic aspect, to see what light they may shed on the nature of the transitive *into -ing* pattern. A comment made on *encourage* and *stimulate* by Wulff et al. (2007, 274–275) may serve as a point of departure for the discussion:

> While verbs like *encourage* and *stimulate* have a neutral or even positive connotation, we find that in the *into*-causative, these verbs are not to be interpreted in their default senses; rather, senses have been selected which allow for a negative interpretation, mostly involving effort...

An element of effort may well be present in the use of the transitive *into -ing* pattern, but it is not clear to the present author that the presence of such an element necessarily involves a negative connotation. For instance, the verb *manage* when combined with the *to* infinitive, as in *He managed to escape from his captors*... (BNC AR8 1708), involves an element of effort, but it is questionable whether the presence of effort entails a negative connotation. Be that as it may, it is still of interest to inquire into the connotations of the use of the pattern under discussion here, negative or otherwise, on the basis of authentic data. The verb *stimulate* is one for which the difference in frequency between British and American English is statistically significant and it may be selected for examination here.

As noted, there are 12 tokens of the verb with the transitive *into -ing* pattern in the material. Here are 11 of them. (The remaining one is a variant of one of these.)

(10) (a) Trailers are designed to provoke a reaction. Ideally, the reaction should be to stimulate people into wanting to find out more about the film. (BrN)

(b) Eroticism can also be a deliberate act of making something which is fundamentally neither sexual nor life-giving look as it if contained these values in order to excite us and stimulate us into wanting it. (BrB)

(c) The effect of such a warning might be to stimulate the employee into seeking proper medical advice in case there is an underlying cause of the continuous minor ailments... (BrB)

(d) Furthermore, the scientists suggest that if we could find a way of introducing iron into the polar oceans now, we could

stimulate the plankton into offsetting the present greenhouse warming. (BrSp)

(e) ... by which time, possibly with the help of a coffee or a G and T, he would be wide awake, interested and stimulated into listening, actively, on the edge of his seat, to an hour and a half's music at least. (BrN)

(f) ... I thought about it probably because you stimulated me into thinking about it. (BrSp)

(g) And even if companies only start doing it because they see the writing on the wall, then if auditing their performance on the environment or equal opportunities, say, stimulates them into drawing up policies to improve that performance, should we dismiss it completely? (BrN)

(h) This short-lived regulatory molecule stimulates the thymus into producing T-cells – the body's cellular light infantry division – which will seek out and destroy virus infections. (BrB)

(i) Any attempt to overcome the symptom of fatigue by stimulating the body into producing more energy is doomed to fail, especially in the long term, for this approach often makes matters worse. (BrB)

(j) This was a variation on a previous Gorbachev theme aimed at stimulating the west into backing his reforms. (BrSp)

(k) And again it all boils down to ... stimulating him into using his muscles his fingers and his hands. (BrSp)

The authentic data make it clear that the interpretation of tokens can be complex, and even though an effort was made here to produce lengthy quotations, it seems hard to make a clear judgment about negativity or otherwise of the construction in the case of (10b), (10e), (10i), and (10j). In the case of (10h), there are negative overtones to the use of the transitive *into -ing* construction. However, there are several examples among the sentences where the flavor of the construction is either neutral, as in (10g), or indeed positive, as in (10c), (10d), and (10f). To judge by the authentic data here, the transitive *into -ing* construction is not necessarily linked to a negative flavor. The *OED* sense of "incite (a person) to do something" (part of sense 2) of *stimulate* appears to be adequate to express the verbal meaning in each case. The verbal meaning is then of course combined with the constructional meaning of the caused motion construction.

The Bank of English Corpus, unfortunately, does not contain other large corpora of American English, and it is therefore not possible to

find further confirmation for the low frequency of the syntactically and semantically innovative transitive *into -ing* pattern with the seven verbs in American English. However, the Bank of English Corpus does have other large corpora of British English, and they make it possible to examine whether the British English results of Table 4.3 can be generalized to other large corpora of British English. The London *Times*, the SUNNOW, and the British Magazines Corpora suggest themselves here for study. These contain 59,795,549, 52,527,230, and 45,215,200 words, respectively. Of these, the *Times* is a "high-brow" newspaper and the *Sun* and the *News of the World*, which make up the SUNNOW Corpus, are popular newspapers. It is thus also possible to make some comparison between innovative usages in newspapers aimed at different types of readership.

When searches were conducted in the three additional corpora using the search strings illustrated in (7a–d), the results given in Table 4.5 were obtained, with the normalized frequencies again being per million words in each corpus. Illustrations are given in (11a–g).

Table 4.5 The matrix verbs with the transitive *into -ing* pattern in three additional corpora

Verb	**The *Times***	**SUNNOW**	**British Magazines**
impel	2		
induce	2	2	
influence	2	2	
lead	7	7	7
motivate	1	1	1
prompt	4	1	7
stimulate	3	1	8
total	21	14	23
normalized frequency	0.35	0.31	0.44

(11) (a) We who question the principle of invasion as a route to world peace make a mistake if we let our doubts about the principle impel us into predicting immediate and embarrassing failure at every step along the way. (The *Times*)

(b) ...its members maintain they have not breached any Rules of Racing and were induced into making remarks that could be taken out of context. (The *Times*)

(c) [a name], professor of food policy at Thames Valley University, who helped influence the government into setting up the FSA,

believes acrylamide and chemicals like it could show why cancer is so common in developed countries. (The *Times*)

(d) As a Leo, you are well known for your generosity, and you can be very moved by the plight of others worse off than yourself. A friend could prompt a sequence of events that leads you into throwing a lot of energy into a community project or charitable venture. Use your natural organising talents to help others get back on their feet ... (British Magazines)

(e) Then [a name] turned round and said 'Why don't Free Kitten play as well?' and that motivated us into sitting down to really start practising.(British Magazines)

(f) We kick off with some gems from [a name], who has a seemingly never-ending fund of good stories; the idea is that others will be prompted into remembering similar anecdotes as it would not be fair to let the whole weight of responsibility lie on Mr Bullock's admittedly capable shoulders. It's up to the rest of us to back him up ... (British Magazines)

(g) My guess is, when you notice a bit of fluid, you're giving your breasts a squeeze to see if any more comes out – as one would. What the squeeze does is stimulate the breast into producing more milk. (British Magazines)

The results given in Table 4.5 and illustrated in (11a–g) provide further confirmation of the emergence of the transitive *into -ing* pattern with neutral matrix verbs. On the whole, the results given in Table 4.5 are in line with the normalized frequencies of Table 4.3 for British English. The British English normalized frequencies continue to be clearly higher than the normalized frequencies found for American English in Table 4.3. The difference in the normalized frequencies between the "high-brow" *Times* Corpus and the "low-brow" SUNNOW Corpus is not dramatic, and suggests that with respect to the present trend of syntactic innovation, the high-brow newspaper is not lagging behind the low-brow newspapers.

In the context of the present finding that the incipient trend affecting verbs of unflavored causation is more advanced in British English than in American English, it is of interest to examine the question of whether the selection of *into -ing* complements by verbs generally might for some reason be more frequent in present-day British English than in present-day American English. The figures based on the FLOB and Frown corpora, from 1991/2, given in Chapter 3, cast some initial doubt on any such putative difference, because of their remarkable similarity, but it is appropriate to probe the question further on the basis of the much larger

corpora available for the present study, also taking into account that the larger corpora are even more up-to-date than the 1991/2 corpora.

An additional search was conducted in the six corpora listed in Table 4.1. The search was of the form of (12):

(12) VBI+1,1*into*+VBG

In the system used in the Bank of English Corpus, the symbol VBI, as noted, stands for the infinitival form of a verb. This search string was chosen because the infinitive form tends to be a frequently used one. The search thus picked out all those strings where an infinitival verb form was followed after one word by the word *into*, immediately followed in turn by an *-ing* form of a verb.

Because of the nature of the search string, almost all of the results were relevant. Exceptions included some subject control constructions, as in (13a), or NP complements, as in (13b):

(13) (a) ... his company might follow SKY into bidding for a club outright. (BrN)
(b) ... the power to send teams into failing hospitals ... (BrN)

Irrelevant tokens were eliminated manually.

In the vast majority of such sequences, the matrix verb was of course from outside of the class of the seven verbs focused on in this chapter and of the type discussed in Chapter 2. Table 4.6 shows the normalized results of these searches.

Table 4.6 The incidence of *into -ing* constructions following verbs in the six corpora, with frequencies normed to one million words

Corpus	**BrN**	**BrB**	**BrSp**	**USN**	**USB**	**USSp**
String (12)	2.5	3.6	2.2	2.3	3.6	2.5

The overall frequency of transitive *into -ing* constructions with verbs does not appear to be noticeably higher in British English than in American English. In the case of the newspaper corpora, the pattern is more frequent in British English, while the opposite is the case in the spoken language. However, the differences are fairly slight overall, and it is remarkable how closely and consistently the frequencies in British and American English mirror each other depending on text

type. Under these circumstances, it is hardly possible to say that the greater number of innovative usages with verbs of unflavored causation in British English is merely a consequence of the larger number of *into -ing* constructions in that regional variety. It is hard to escape the conclusion that in the area of the spread of the *into -ing* pattern to complements of manner-neutral matrix verbs, it is British English that is leading the way in the unfolding of grammatical change.

Above it was pointed out that the *into -ing* pattern is telic in nature, and that the *to* infinitive pattern involving object control may be telic or atelic. The distinction is valid enough in general terms, but with respect to the specific class of matrix predicates – verbs of unflavored causation – identified here, some further discussion of the semantics of the two syntactic constructions is called for. The reason is that with the class of verbs in question, *to* infinitive complements also appear to be regularly telic in nature. For instance, consider the sentences in (14a–b) from this point of view:

(14) (a) Why is the poet writing in this way at this time? What has influenced him to do so? (BrB)
(b) ... flower arranging had proved a taster for many people and stimulated them to explore other areas of learning. (BrN)

The telic versus atelic distinction is therefore hardly sufficient to separate the two patterns of complementation with the specific class of matrix verbs under consideration here.

At the same time, general theoretical considerations make it desirable to look for a semantic difference between the two constructions. On common-sense grounds, it would hardly make sense for a new pattern to emerge with precisely the same meaning as that of an already established pattern. From a more theoretical point of view, we are reminded of Bolinger's heuristically important dictum that "a difference in syntactic form always spells a difference in meaning" (1968, 127).

To examine the two patterns, it is helpful to examine some authentic examples of *into -ing* constructions, and to view them alongside invented *to* infinitive constructions. Some *into -ing* constructions are given in (15a–d), some of them are repeated from above, while (16a–d) represent their *to* infinitival counterparts, which are all well formed, even though invented.

(15) (a) ... the shock of the murders at Omagh may have influenced Sinn Fein into considering whether it is really part of the

peace process to have stashes of guns and explosives sprinkled around the island of Ireland ready for existing and new splinter groups ... (BrN)

(b) Somehow, I think it has now got into a stage or has motivated the Indians into thinking they ought really to be playing a political role. (USSp)

(c) The moratorium suggested by the Lithuanian leadership is a careful compromise, going far enough they hope to prompt President Gorbachev into opening talks but not so far that it looks like a capitulation ... (BrSp)

(d) Trailers are designed to provoke a reaction. Ideally, the reaction should be to stimulate people into wanting to find out more about the film. (BrN)

(16) (a) The shock of the murders at Omagh may have influence Sinn Fein to consider whether it is part of the peace process to have stashes of guns and explosives sprinkled around the island of Ireland.

(b) Somehow I think it has now got into a stage or has motivated the Indians to think they ought really to be playing a political role.

(c) The moratorium suggested by the Lithuanian leadership is a careful compromise, going far enough they hope to prompt President Gorbachev to open talks but not so far that it looks like a capitulation.

(d) Ideally, the reaction should be to stimulate people to want to find out more about the film.

Coming at the issue from the other point of view, it is also helpful to list a sample of authentic *to* infinitive complements, given in (17a–c), and to compare them with their invented *into -ing* counterparts, given in (18a–c). One or two of the latter are of doubtful currency.

(17) (a) ... several homeland leaders had boycotted another meeting earlier in the day in preparation for negotiations and the government had claimed that the ANC had influenced them to do so. (BrSp)

(b) The investigations turned fresh attention on Swiss air traffic control, and prompted prosecutors in Zurich to open an inquiry on suspicion of negligent homicide and negligent disruption of public transport. (USN)

(c) Parnell's acquiescence in the government's conditions certainly stimulated some Fenians to revert to assassinations,

but the murder on 6 May 1882 of Lord Frederick Cavendish, Gladstone's nephew-in-law, rocked both Britain and Ireland. (BrB)

(18) (a) ... the government had claimed that the ANC had influenced them into doing so.
(b) The investigations turned fresh attention on Swiss air traffic controls and prompted prosecutors in Zurich into opening an inquiry.
(c) Parnell's acquiescence certainly stimulated some Fenians into reverting to assassinations.

The difference between the two types of complements is subtle, and since the *into -ing* pattern is only in the process of emerging at this time, the difference may itself be in the process of taking shape. At the same time, it seems clear that there is a different flavor to the two constructions. The *into -ing* pattern has been linked to a negative semantic prosody in the literature (Hunston and Francis 2000, 102 f.), and this may sometimes be a factor, as perhaps in (11b) from the *Times* corpus above. However, in many examples, *into -ing* complements do not appear to be linked to any negative overtones in the case of the present class of manner-neutral matrix verbs, as witness (15c–d), for instance, and *to* infinitives are not limited to a positive prosody either, as witness (17a).

Comparing the authentic and invented examples, it is possible to say that the *into -ing* construction tends to carry a more specific flavor than the *to* infinitive construction. Both types of complement express movement from one state to another, entailing, with the class of matrix verbs in question, that the second state is actually reached, but the *into -ing* pattern places an emphasis on the extent of the movement from the initial state to the final state, and also carries the idea that the movement may have been by stages. The phrases *far enough* and *not so far* in example (15c) are suggestive in this context. The direct object in the object control pattern typically designates an animate entity and it is also possible to say that the *into -ing* pattern suggests a process of "coming around" to a decision or to an action on the part of that entity. For its part, the *to* infinitive pattern focuses more on the resulting state, regardless of how it is reached. Further, the *into -ing* construction may convey the idea of a deliberate design, and when this idea is lacking, as in (17b–c), the *into -ing* construction seems less likely than the *to* infinitival variant. At the same time, it should be borne in mind that the *into -ing* pattern is only an emerging one at this time, and that its semantic content is still taking shape.

3 Summary and concluding observations

This study of a class of manner-neutral verbs of influencing – *impel*, *induce*, *influence*, *lead*, *motivate*, *prompt*, and *stimulate* – involving object control provides confirmation of the traditional view that such verbs are commonly found with *to* infinitive complements. This holds for both British and American English, and it is hard to find a clear-cut and consistent difference between the two varieties in this respect.

By the side of *to* infinitive complements, *into -ing* complements are much more rare with the seven verbs of manner-neutral influencing. However, instances of *into -ing* complements with such verbs were found in the present material. The finding is of interest because of the failure of the *OED* to feature *into -ing* complements with the verbs in question. This suggests that we are dealing with uses that are innovative from a syntactic point of view. They are likewise innovative from a semantic point of view since the *into -ing* pattern has tended to be associated in the literature with verbs of flavored influencing.

The frequencies were admittedly very low with three of the verbs, *impel*, *induce*, and *motivate*, and while the present study draws attention to the existence of such complements even with these verbs, the frequencies are too low in the material as a whole for any broader claims of significance. However, with the remaining four verbs – *influence*, *lead*, *prompt*, and *stimulate* – more tokens are found in the material, and it is possible to say that they represent a broader trend and something more than mere one-off occurrences.

The emergence of the new syntactic pattern may be seen in the larger theoretical context of what Günter Rohdenburg (2004) has called the Great Complement Shift. A major feature of the shift, discussed in the literature, concerns the emergence and the spread of *-ing* complements, both "straight" and prepositional, at the expense of *to* infinitive complements of matrix verbs, adjectives, and nouns in recent centuries. In the literature the focus has often been on *to -ing* complements selected by various types of matrix predicates and their spread at the expense of *to* infinitival complements (Denison 1998, 266; Rudanko 1998, 2000), and the present study provides systematic evidence of the spread of the *into -ing* pattern in the context of the Great Complement Shift. The emerging pattern investigated here involves *-ing* complements of the prepositional variety and their emergence as a potential rival to the *to* infinitive pattern in a syntactically similar structure of complementation involving object control, and may thus be viewed as another manifestation of the shift.

With respect to the British English versus American English divide, the present investigation produced the result that the innovative use of the *into -ing* pattern is emerging more strongly in British English than in American English. The result is based on the four manner-neutral verbs that are found in the corpus material as a whole with some frequency and that are also found across several different corpora. In the case of each verb, the pattern had a higher incidence of occurrence in British English.

The present findings run counter to the hypothesis that grammatical change today is being spear-headed by American English. The findings call for follow-up work based on other larger corpora of current American English, including the American National Corpus, as such corpora become available in the future, in order to find out whether the frequencies relating to the incidence of the transitive *into -ing* pattern with manner-neutral matrix verbs in the two regional varieties in such later corpora are in line with the results of the present study. If these results are confirmed, the present study would provide a basis for arguing that in some areas of grammar, it is British English that is in the forefront of grammatical change today, and this would invite further research on why this should be the case.

5

Tracking and Explaining the Transitive *out of -ing* Pattern in Recent and Current English

1 Introduction

Consider sentence (1):

(1) ... an official almost talked Mrs. Steuer out of withdrawing her account, ... (*TIME*, 1931)

Sentence (1) illustrates a pattern of verb complementation: the matrix verb *talk* selects three arguments, a subject NP, realized by *an official*, a direct object NP, realized by *Mrs. Steuer*, and a prepositional phrase, realized by *out of withdrawing her account*. The latter two constituents are the complements of *talk* in the sentence.

The prepositional phrase consists of the preposition *out of* (Quirk et al. 1985, 678; Francis et al. 1997, 412)[1] and a following gerund or *-ing* clause. As noted in Chapter 1, the *-ing* constituent is sentential, with its own understood subject. Given that the NP *Mrs. Steuer* is an argument of *talk* and receives its semantic role from *talk*, it is clear that the pattern of (1) is one of object control. Adopting the notion of a nominal clause, understood as a clause dominated by an NP, from Quirk et al. (1985), it is possible to represent the structure minimally as in (1′):

(1′) $[[\text{an official}]_{NP}$ almost $[\text{talked}]_{Verb}$ $[\text{Mrs. Steuer}]_{NP}$ $[[\text{out of}]_{Prep}$ $[[[\text{PRO}]_{NP}$ withdrawing her account$]_{S2}]_{NP}]_{PP}]_{S1}$

The pattern of (1′) is here termed the transitive *out of -ing* pattern.

There is also an intransitive *out of -ing* pattern in English. *Talk* does not select it though, because the object NP of sentence (1) cannot be omitted. However, consider the verb *wiggle* in sentence (2):

(2) . . . the insurance company tried to wiggle out of paying Brower's damages . . . (*TIME*, 1935)

Sentence (2), similarly to sentence (1), has an understood subject, but it lacks a direct object, and instead of object control, it involves subject control. The subject control pattern merits investigation, but the present study examines the object control pattern.

The present study focuses on the sentential pattern of Verb NP *out of -ing*, and nominal complements of the type Verb NP *out of* NP are therefore set aside. Here is an illustration of the nominal pattern:

(3) Herbert Hoover "swindling" the Chinese out of mining properties. (*TIME*, 1932)

The focus of this study also excludes a pattern that is superficially similar to that of sentence (1) with respect to the sequence of constituents. Consider sentence (4):

(4) I get a real kick out of finding you wrong. (*TIME*, 1930)

The sequence of constituents in sentence (4) is NP Verb NP *out of* PRO Verb-*ing* . . . , which is the same as in sentence (1). However, the NP *a real kick* does not control the reference of PRO; instead, (4) displays subject control, and it is therefore excluded from this investigation.

The purpose of this study is to examine the incidence of the transitive *out of -ing* pattern in recent and current American English and in current British English. The investigation is corpus based in each case. For recent American English, the data come from the new *TIME* Corpus. This is a corpus of approximately 100 million words that spans the period from 1923 to the present. The text type for these decades is therefore American news magazine English. The data from the *TIME* Corpus extend into current American English, and they are supplemented with data from two major parts, Spoken and Newspapers, of the Corpus of Current American English, COCA. As far as current British English is concerned, the BNC is the obvious database to consider.

A great deal of work has been done in recent years on the transitive *into -ing* pattern, as in *talk someone into doing something*, but the transitive *out of -ing* pattern has often been neglected in work on complementation. Francis et al. (1996) present a full-scale discussion of what they call the "V n out of n" pattern, which would here be labeled the "V NP out of NP" pattern, with one or two remarks on the sentential pattern in that context, but do not offer a full treatment of the latter. The sentential pattern is also missing from the treatment of numerous patterns of sentential complementation in Alexander and Kunz (1964) and in Bridgeman et al. (1965). The present treatment seeks to redress this neglect. One purpose is to obtain information on the frequency of the pattern in recent English. Further, it is of interest to examine the higher verbs that select the pattern, and to attempt to characterize such verbs from the point of view of their meaning. A theoretical question to raise is whether the pattern should be considered a construction in the sense of Adele Goldberg's (1995) work.

2 The transitive *out of -ing* pattern in recent and current American English

Starting with the *TIME* Corpus, the search string employed is "out of [v?g*]," where the symbol in brackets is the symbol for the *-ing* form of a verb. An alternative search string would be to specify the context as [vv*], which is the symbol for a lexical verb, within a certain number of words, perhaps four or five, to the left. The verb-specific search string might be attractive from the point of view of precision, but it would be more reliant on tags and therefore prone to miss any matrix verbs that had been tagged incorrectly. To minimize the problem of erroneous tags, which might perhaps be especially acute in the case of novel and unexpected usages, and to retrieve the maximum number of relevant matrix verbs, including innovative and non-established usages, the more permissive search string is adopted here. This decision is also possible from the point of view of precision because the number of tokens does not turn out to be excessively large.

The original plan was to examine the 1920s, the 1950s, and the 1980s. However, it turned out that not a single token of the pattern was found in the 1920s. Consequently, the 1920s and the 1930s were combined. The 1950s and the 1960s were similarly combined, as were the 1980s and the 1990s.

Table 5.1 gives information on matrix verbs and their frequencies in the first period of the *TIME* Corpus.

Table 5.1 Frequencies of matrix verbs selecting the transitive *out of -ing* pattern in the *TIME* Corpus in the 1920s and 1930s

Frequency	**Verbs**
3	*scare*
2	*talk*
1	*jolt, intimidate, laugh, shame*

Here are some additional illustrations:

(5) (a) ... Sam comes back wounded and Cassie talks him out of breaking up Julie's nuptials. (1934)
(b) ... President Hoover had made a flying trip to Detroit to shame the Legion out of asking for immediate payment in full of its adjusted service certificates ... (1931)
(c) All China was meanwhile being violently jolted out of thinking about the recent kidnapping ... (1937)
(d) Unbidden to the rescue leaps Actor Douglas Fairbanks Jr., a well-intentioned masher with a way of laughing the law's locksmiths out of doing their sworn duty. (1938)
(e) ... his reputedly damaging remarks on the Russian Air Force which reputedly scared the British Government out of sticking up for Czechoslovakia. (1939)
(f) Don't be intimidated (by some so-called experts) out of cuddling your baby. (1939)

The transitive *out of -ing* pattern was clearly rare in the 1920s and the 1930s, with only nine tokens found. The size of the database is 7.6 plus 12.7 million words, that is, 20.3 million words in total, and the normalized frequency of the construction is therefore 0.4 per million words. Or, if only the 1930s is taken into account, since all the tokens are from that decade, the normalized frequency is 0.7 per million.

Regarding the theoretical analysis of the transitive *out of -ing* pattern, it is helpful to start by recalling Chapters 2, 3, and 4 of the present volume on the transitive *into -ing* pattern, because these two patterns are similar in that both involve object control and the pattern NP Verb NP Prep NP, where the third argument is sentential and introduced by a locative preposition. The transitive *into -ing* pattern was argued to be a construction in the sense of Adele Goldberg's (1995) work, and, more

particularly, it was argued that the construction in question is a type of the caused motion construction, and that, as proposed by Goldberg and Jackendoff (2004), there are two subevents involved, the constructional subevent and the verbal subevent, and there is a specific relation between the two. As noted, the verbal subevent has to do with the higher verb, and the constructional subevent is tied to the caused motion construction:

> ... the meaning of a resultative sentence contains two separable subevents. One of them, the VERBAL SUBEVENT, is determined by the verb of the sentence. The other subevent, the CONSTRUCTIONAL SUBEVENT, is determined by the construction. A resultative sentence means more than just the combination of the verbal subevent and the constructional subevent. ... That is, for the bulk of cases ... the verbal subevent is the MEANS by which the constructional subevent takes place. (Goldberg and Jackendoff 2004, 538)

Adopting the idea that the transitive *out of -ing* pattern likewise represents a type of the caused motion construction, it seems in the light of the illustrations in (5a–f) that there are two interpretations that are relevant to understanding the nature of the constructional subevent in the transitive *out of -ing* pattern. The first is "X causes Y to move Z"; this is relevant to (5c). To analyze the sentence, consider the active counterpart, given in a somewhat simplified form in (5c′):

(5) (c′) The news jolted China out of thinking about the kidnapping.

Part of the meaning of (5c′) is along the lines of "the news caused China to move out of thinking about the kidnapping as if by means of a jolt." This reading is here called the "move" or "extraction" reading. It corresponds with the interpretation that Francis et al. (1996, 414) characterize as "persuading someone to leave a place or state."

The other interpretation that is relevant to understanding the constructional subevent in the case of the transitive *out of -ing* pattern is "X prevents Y from moving Comp (Z)." This interpretation is characterized as follows:

> This class of expressions ... can be described in terms of the force-dynamic schema of imposition of a barrier, causing the patient to stay in a location despite its inherent tendency to move. (Goldberg 1995, 162)

This interpretation seems relevant to (5a), for instance, ... *Sam comes back wounded and Cassie talks him out of breaking up Julie's nuptials*. The sentence describes a situation where the referent of the NP *him* has not broken up the nuptials yet, and is indeed prevented from doing so. Part of the meaning of the sentence may be paraphrased, "Cassie prevented him from breaking the nuptials by means of talking to him." This reading may be labeled the "prevention" reading, and it corresponds to the reading that Francis et al. (1996, 414) characterize as "persuading someone not to do something."

In the light of the tokens in (5a–f), it seems that the nature of the lower predicate bears on the question of which reading is salient. The predicate *think about something*, as in (5c), is atelic, without expressing an end point, and the extraction reading appears to go with an atelic lower predicate. In contrast, the predicate *break up somebody's nuptials*, as in (5a), is telic, and the prevention reading appears to go with a telic lower predicate.

The matrix verbs listed in Table 5.1 are also of interest from a syntactic point of view. Most of them are commonly found with two arguments independently of the transitive *out of -ing* construction. For instance, *shame*, with the sense of "To make ashamed, fill with shame, cause to feel shame" (*OED*, sense 4), is a verb of this type, as in *The love Leeby bore Jamie was such that in their younger days it shamed him* (1889, James Matthew Barrie, *Window in Thrums*). Sentence (5b) illustrates the use of the verb in the caused motion construction, and it may be abbreviated to (5b′):

(5) (b′) President Hoover shamed the Legion out of asking for payment.

When the verb is used in the caused motion construction, as in (5b) and (5b′), it selects three arguments. The caused motion sense of *shame* is a conventionalized sense, for it has been recorded in the *OED*, a standard work of reference. The sense is given as "To drive (one) *out of*, *into* (a state, course of action, etc.) through shame or fear of shame" (*OED*, sense 7.b).

It would also be possible to say that the verb *shame* retains its basic sense of "fill with shame" even in (5b′) and that the third argument role, that of Goal, is supplied by the caused motion construction. The "prevent" interpretation of the construction is relevant to (5b′), and part of the meaning of (5b′) is then along the lines of "Hoover prevented the Legion from asking for payment by means of threatening to shame it."

Scare and *jolt* are similar to *shame* in that they likewise commonly occur with two arguments, outside of the transitive *out of -ing* pattern.

The verb *talk*, found in (5a), *Sam comes back wounded and Cassie talks him out of breaking up Julie's nuptials*, is different from a syntactic point of view. It is capable of selecting two arguments independently, as in *talk politics*, but in such uses the semantic role of the NP object is different from the Patient (or Influenced) role of the NP object in the caused motion construction, and it is more appropriate to say that in the case of *talk* the verb supplies only one participant role or argument in (5a), and the caused motion construction supplies two arguments. The usage in question is conventionalized and recognized as a separate sense of the verb in the *OED*, under sense 9.a (d) "*to talk* (a person) *into* or *out of*, to persuade into, or dissuade from (something) by talking." The sense definition is in line with the Goldberg-Jackendoff analysis based on the two subevents and a specific relation between them.

The verb *laugh*, found in (5d), ...*Fairbanks Jr., a well-intentioned masher with a way of laughing the law's locksmiths out of doing their sworn duty*, also commonly selects one participant role or argument in its basic sense of "to manifest the combination of bodily phenomena (spasmodic utterance of inarticulate sounds, facial distortion, shaking of the sides, etc.) which forms the instinctive expression of mirth or of sense of something ludicrous, and which can also be occasioned by certain physical sensations, esp. that produced by tickling" (*OED*, sense 1.a), and the caused motion construction supplies the other two arguments. It is a sign of the comprehensiveness of the *OED* that the usage is recognized in that dictionary as a separate sense of *laugh* with the gloss "to produce a specified effect upon (a person) by laughing" (sense 6). This definition is again consistent with the approach based on two subevents and a specific relation between them.

Table 5.2 gives information on the matrix verbs found and their frequencies during the 1950s and the 1960s. Nine verb types are found, and the total number of tokens is 24. The size of the subcorpus is 16.8 million words for the 1950s and 16.1 million words for the 1960s, that is, 32.9 million words. The frequency of the transitive *out of -ing* construction is 0.7 per million words.

Table 5.2 Frequencies of matrix verbs selecting the transitive *out of -ing* construction in the *TIME* Corpus in the 1950s and 1960s

Frequency	**Verbs**
14	*talk*
3	*scare*
1	*beat*, *charm*, *frighten*, *help*, *josh*, *keep*, *shame*

An obvious finding is that the verb *talk* has become the most frequent verb selecting the transitive *out of -ing* pattern by a very wide margin. This finding may be compared with findings about the use of *talk* with the transitive *into -ing* pattern, as in Rudanko (forthcoming) and in Chapter 2 of this volume.

Here are some illustrations:

(7) (a) Lord Essex, ace British negotiator who works over the heads of embassies, is trying to talk the Russians out of supporting a revolution in the province of Azerbaijan. (1950)
(b) Georgia's rural woolhats ... marched on Atlanta ... to try to scare city moderates out of complying with a certain-to-come federal integration order. (1959)
(c) Gifted with lively wit, Bernice Brown showed a great talent for joshing her husband out of taking himself too seriously and soothing hurt egos ... (1958)
(d) So long as the action is confined to Madcap Melba charming a cop out of giving her a parking ticket, or a gangster into surrendering a restaurant phone, the story is readable enough and lively. (1965)

The two constructional meanings identified above are found in the material again. The interpretation "X causes Y to move Z" is relevant to (7a), and perhaps to (7c). For instance, sentence (7c) might be simplified to *She joshed her husband out of taking himself too seriously*, and part of the meaning of the sentence may then be given as "she caused her husband to move out of taking himself too seriously by means of making fun of him." The predicate *take oneself too seriously* seems atelic in the sentence, as expected.

As for the other constructional interpretation, "X prevents Y from moving Comp (Z)," it seems relevant at least to (7b) and (7d). For instance, if (7d) is simplified to *Melba charmed a cop out of giving her a parking ticket*, it is possible to say that part of the meaning of the sentence is "Melba prevented a cop from giving her a parking ticket by means of charming him." For its part, the predicate *give someone a parking ticket* is telic.

In the 1980s and the 1990s, a new pattern is identified, which resembles the transitive *out of -ing* construction as far as the sequence of constituents is concerned. Consider (8a–b):

(8) (a) That should take the sting out of being bumped as a speaker at the G.O.P. convention. (1996)
(b) That possibility infuriates critics, who argue that the healthier approach would be to take the stigma out of being short. (1993)

The lower clauses of (8a–b) have understood subjects, but the higher objects *the sting* and *the stigma* do not control the interpretation of the PROs in question. Instead, each of the sentences in (8a–b) features a PROarb. There are four tokens of this pattern, all with the verb *take* as the matrix verb. The non-control pattern is worth noting, even though strictly speaking it does not come within the purview of the present study.

For the 1980s and the 1990s, Table 5.3 presents a picture of the transitive *out of -ing* pattern. The size of the subcorpus is 11.4 plus 9.7 million words, that is, 21.1 million words in total, and the 12 tokens yield a frequency of 0.6 per million words, which represents a slight decline from the 1950s and the 1960s subcorpus. The number of tokens of the matrix verb *talk* has not gone up further; instead, the number has come down slightly. Both findings are reminiscent of earlier results relating to the use of the transitive *into -ing* pattern.

Table 5.3 Frequencies of matrix verbs selecting the transitive *out of -ing* construction in the *TIME* Corpus in the 1980s and 1990s

Frequency	**Verbs**
9	*talk*
1	*frighten*, *get*, *scare*, *shame*

Here are some illustrations:

(9) (a) Some felt that Shultz's speech may have been an attempt to frighten terrorists in Beirut out of launching a pre-election attack. (1984)
(b) But a New York Times story about a newly discovered condition afflicting homosexual men has the gentle revelers wondering: Is the CIA trying to scare them out of having sex? (1990)
(c) This gets Compaq out of being a box supplier ... (1998)

The "move" interpretation is relevant to (9c), while the "prevent" interpretation applies to (9a) and (9b). For instance, part of the meaning of (9b) might be paraphrased "is the CIA trying to prevent them from having sex by means of frightening them."

The survey of the *TIME* Corpus shows that the transitive *out of -ing* pattern does occur in twentieth-century American English, and that the verb *talk* is the most frequent verb selecting it. It is helpful to view

the pattern as a type of the caused motion construction, with two distinct readings relevant to it, one expressing caused motion proper and the other the prevention of motion. However, a survey of the corpus also revealed that the pattern was quite rare in American news magazine English in the twentieth century.

To shed further light on the incidence of the transitive *out of -ing* construction in current American English, two major segments of COCA were also examined, which were the Spoken segment and the Newspaper segment. The Spoken part is some 81.7 million words in size. The search string used was again simply "out of v?g*." No requirement was imposed on the context, in order to retrieve any matrix verbs that might have been mislabeled. Table 5.4 gives information on the matrix verbs found and their frequencies.

Table 5.4 Frequencies of matrix verbs selecting the transitive *out of -ing* construction in COCA, spoken part

Frequency	**Verbs**
23	*talk*
5	*get*
4	*scare*
3	*keep*
2	*legislate, rule, waiver*
1	*drive, embarrass, gyp, take*

As regards *rule*, and some other verbs with the pattern, including *get* and *keep*, they might be cited with *out*, the first part of the complex preposition *out of*, because phrasal verbs such as *rule out* exist in their own right. However, while recognizing the phrasal verbs, the present treatment follows Francis et al. (1996, 415) in citing the verbs without the particle in the lists.

The frequency of the construction continues to be very low, at about 0.6 per million tokens. Further, the verb *talk* is the most frequent verb selecting the pattern by a very wide margin. Here are some illustrations:

(10) (a) You've watched them, for example, in Massachusetts basically drive the Catholic church out of running adoption services, drive Catholic hospitals out of offering any services ... (2008, SPOK)

(b) He got gypped out of facing the camera. (1995, SPOK)
(c) Bill is just trying to talk himself out of voting for McCain because he's a liberal. (2000, SPOK)
(d) My anger, honestly, has turned toward – toward legislators who have legislated me out of carrying my gun for my protection. (1992, SPOK)

The "move" sense of the construction is applicable in (10a), and the "prevention" sense in (10c), and maybe in (10b). Perhaps the most interesting verb found is *legislate*, as illustrated in (10d). The more narrow sense of caused motion seems applicable, and the appeal to the construction yields a paraphrase of the type "legislators have caused me to move out of carrying my gun by means of enacting legislation." The *OED* shows its comprehensiveness, for it includes the sense "to bring or drive by legislation *into* or *out of*" among its senses for *legislate*, where the *by* phrase is worth noting, as confirming the two subevent schema and the specific relation between the subevents identified by Goldberg and Jackendoff (2004).

Table 5.5 gives information on the verbs found with the transitive *out of -ing* pattern in the Newspapers segment of COCA, with their frequencies. The corpus is some 79.4 million words in size, and the total number of tokens is 53. This represents a frequency of 0.7 per million words.

Here are some illustrations:

Table 5.5 Frequencies of matrix verbs selecting the transitive *out of -ing* construction in COCA

Frequency	**Verbs**
37	*talk*
5	*shut*
2	*get*
1	*coax*, *conflict*, *confuse*, *freeze*, *keep*, *intimidate*, *price*, *scare*

(11) (a) ...Jennings' roommates include fellow megabucks bonus babies Matt Holliday, the infielder coaxed out of playing quarterback at his hometown Oklahoma State University last year;... (1999, NEWS)
(b) ...we must keep the government out of micro-managing any venture better done by private enterprise. (1994, NEWS)

(c) ...his firm made a rule of not trying to recruit all the clerks of any one justice at any one time. Without the rule, he said, a justice might be effectively frozen out of writing an opinion in the case because all the justice's clerks could feel compelled to bow out or recuse themselves. (1998, NEWS)

(d) Mr. Mehri demurred, saying his work on the discrimination suit conflicted him out of representing Mr. Lundwall. (1997, NEWS)

The Newspaper part of COCA confirms the predominance of *talk* as the matrix verb that most frequently selects the transitive *out of -ing* pattern in current American English. The "move" reading seems appropriate in (11a), while the "prevent" reading seems appropriate in the remainder of the illustrations.

From a theoretical point of view, the tokens in (11c) and (11d) are of the greatest interest. As regards (11c), the *OED* has an entry for *freeze out* with a sense that seems relevant: "to exclude from business, society, etc. by chilling behavior, severe competition, etc." (sense 7.b). There is no illustration of an *out of -ing* complement, but the analysis of the pattern as a caused motion construction makes it possible to interpret (11c) along the lines of "a justice may be effectively prevented from writing an opinion by means of chilling behavior."

As for *conflict* in (11d), the *OED* does not offer a sense that would be immediately relevant with a resultative meaning, and the chief sense of the verb today is given as "3. Fig. Of interests, opinions, statements, feelings, etc.: To come into collision, to clash; be at variance, be incompatible." With this sense, the verb generally takes a *with* NP complement, as in *One error conflicts with another*... (1861, *OED*, Henry Thomas Buckle, *History of Civilization in England*) When the pattern is viewed as a type of caused motion construction, it is possible to formulate the reading "*his work on the antidiscrimination suit prevented him from representing Mr. Lundvall by means of/because of a clash of interests*."

This discussion of recent and current American English took advantage of large corpora. It was observed that the transitive *out of -ing* pattern tends to be relatively rare in current American English. Among the verbs selecting it, *talk* is the most frequent by a wide margin. Other verbs, in contrast, tend to be quite rare. On the other hand, this survey showed that the pattern is capable of being used in innovative and unexpected ways. The usage of the verb *conflict* in (11d) is a case in point, and the caused motion analysis provides an interpretation for the unexpected usage.

3 The transitive *out of -ing* construction in current British English

In this section, the transitive *out of -ing* pattern is examined in the BNC. The search string "out of _V.G" was selected, in preference to a search string that would have included a verb to the left of the string, in order not to overlook any innovative matrix verbs that might have been tagged incorrectly. The search string retrieves 285 tokens, but most of them are irrelevant. Among the irrelevant tokens, subject control constructions of different kinds are prominent, as in *I get the biggest buzz out of getting on stage* (ACN).

Table 5.6 gives information on the relevant matrix verbs retrieved and on their frequencies in the BNC. The total number of tokens is low, at only 16. This represents a frequency of only 0.2 per million, which is noticeably lower than what was generally found in the American English corpora.

Table 5.6 Frequencies of matrix verbs selecting the transitive *out of -ing* construction in the BNC

Frequency	Verbs
10	*talk*
2	*get*
1	*argue, bomb, price, psyche, push, startle*

On the other hand, current British English resembles current American English in that the matrix verb *talk* is the verb that most frequently selects the transitive *out of -ing* construction. Here are some illustrations of different matrix verbs with the pattern:

(12) (a) You usually do your darnedest to talk me out of getting involved in this sort of thing. (GVP)
(b) As they passed one of the Mason's guards, they startled him out of dozing, and he hastily got up, cursing them and telling them not to go out of sight. (HTN)
(c) The RUC Chief Constable says his officers won't be bombed out of policing the province, after a massive car bomb exploded outside a police station in County Antrim. (K24)

The "prevent" reading is observed in (12a), and the "move" reading in (12b–c). From the point of view of the analysis of the pattern as a caused

motion construction, the token in (12c) is of interest. The verb *bomb* ordinarily has the meaning "to attack with an explosive bomb placed or thrown for the purpose of destruction" (*OED*, sense 1.b), and with this meaning the verb normally takes two arguments, as in *They bombed us periodically during the day and night* (1915, *OED*, *Draconian*). In the caused motion construction, the Goal argument is supplied by the construction and the reading of (12c) is straightforward: "his officers won't be prevented from policing the province by being bombed." The noteworthy feature of the usage of *bomb* in (12c) is that in this case the *OED* does not offer a separate sense of the resultative type. The token thus represents a usage that seems innovative and has not yet established itself in the language. The applicability of the caused motion analysis to such a novel token gives support to the caused motion approach.

4 Summary and concluding observations

It has been shown in the literature that the transitive *into -ing* pattern has flourished in recent and current English. However, the transitive *out of -ing* pattern has remained rare. This may be the reason why it has often been overlooked in the literature. Several large corpora of recent American English and current American English were surveyed in this chapter, but the frequency of the pattern consistently remained below one per million words. In the BNC, an even lower frequency was observed. The verb *talk* is clearly the matrix verb that most frequently selects the pattern, and the verb *argue*, found with the pattern in the BNC, may have come to select the pattern because of semantic similarity. However, not even the relatively high frequency of *talk* with the pattern has been able to attract other matrix verbs to selecting the pattern in a noteworthy way.

Despite of the low frequency of the transitive *out of -ing* pattern, the present study suggests that it is justifiable to analyze the pattern as a type of the caused motion construction. In the construction, it is helpful to distinguish the constructional subevent from the verbal subevent. In the case of the transitive *out of -ing* pattern, it was suggested that there are two constructional meanings that can often be separated, the extraction meaning, which tends to go with atelic lower predicates, and the prevention meaning, which tends to go with telic lower predicates.

Verbs such as *frighten*, *scare*, and *shame* select the pattern in more than one of the corpora considered, and these verbs commonly occur with two participant roles outside of the transitive *out of -ing* pattern. When used with the transitive *out of -ing* construction, the caused motion

analysis makes it possible to say that the construction supplies the third argument in the relevant sentences. Further, it is possible to say that when used with the *out of -ing* pattern, the verbs still retain their ordinary meanings, with the verbal subevent expressing the means by which the constructional subevent comes about. It was seen repeatedly that the *OED* identifies a separate sense, typically with a resultative phrase and with a *by* phrase, for the usage in question. This is testimony to the comprehensive character of the *OED*. However, *conflict* and *bomb* illustrate verbs for which no such separate sense is given in the *OED*, and for such verbs it is especially helpful to be able to invoke the caused motion analysis. Even if the number of the usages of this type is very low, the tokens found with *conflict* and *bomb* show that the transitive *out of -ing* pattern has the potential to be used in an innovative way.

The present study invites follow-up work comparing the transitive *out of -ing* construction, for instance, with the transitive *from -ing* pattern, as in *frighten somebody from doing something*. Such follow-up work may also shed light on the question why the transitive *out of -ing* pattern has remained such a rare pattern in the language.

6

Watching English Grammar Change: Variation and Change in the Grammar of *Accustomed*

1 Introduction and background

There are a number of central structural types of sentential complements in English. They include *to* infinitive and what may be called *to -ing* complements. These are initially illustrated by (1) and (2), respectively (from the Bank of English Corpus).

(1) United officials were reluctant to discuss the matter ... (*The Times*)

(2) ... Wordsworth is addicted to causing trouble ... (*The Times*)

Both *to* infinitive and *to -ing* complements may be selected by adjectival heads, as is shown by (1–2).

It is assumed here, analogously to earlier chapters, that the complements in both (1) and (2) have implicit or understood subjects. As noted in Chapter 1, this assumption may be motivated by the need to represent the argument structure of the lower verb, *discuss* and *cause* in (1) and (2), respectively. Both (1) and (2) involve control, and in line with current work, the understood subject in each case is represented here with the symbol PRO.

Despite of such similarities between the two patterns, there are also robust differences between them. It is observed first of all that the two types of complements are not interchangeable with the matrix predicates of (1–2), for (3–4) are ill formed:

(3) *United officials were reluctant to discussing the matter.

(4) *Wordsworth is addicted to cause trouble.[1]

At a more subtle level, it is observed that the sequence following *to* can be deleted by VP Deletion – or be subject to an interpretive analogue of the rule – in the case of (1), but not in the case of (2):

(5) Were United officials reluctant to discuss the matter? Yes, they were reluctant to discuss the matter (but did so when pressed)./Yes, they were reluctant to (but did so when pressed).

(6) Is Wordsworth addicted to causing trouble? Yes, Wordsworth is addicted to causing trouble (but feels ashamed about it afterwards)./*Yes, Wordsworth is addicted to (but feels ashamed about it afterwards).

One way of accounting for the difference observed in (5–6) is to adopt the idea that the *to* of (1) is an infinitival marker (Quirk et al. 1985, 1178–1179, note a) or an Infl (Chomsky 1981, 18 f.) or an Aux. (The more conventional label of Aux may be used for the *to* of (1).) It should be added that even if the *to* of (1) is called an infinitive marker, this does not mean that it cannot have a meaning. On the contrary, an element under the Aux node may have a meaning. (For discussion of the meaning of infinitival *to*, see Rudanko 1989, 36.) As for the *to* of (2), it is a preposition.

Another assumption made here is that the prepositional *to* is followed by a nominal clause, that is, by a NP dominating a sentence. Under these assumptions, the structures of (1) and (2) may be represented as follows:

(1′) $[[\text{United officials}]_{NP1}$ were $[\text{reluctant}]_{Adj}$ $[[\text{PRO}]_{NP2}$ $[\text{to}]_{Infl}$ [discuss the matter$]_{VP}]_{S2}]_{S1}$

(2′) $[[\text{Wordsworth}]_{NP1}$ was $[[\text{addicted}]_{Adj}$ $[[\text{to}]_{Prep}$ $[[[\text{PRO}]_{NP2}$ [causing trouble$]_{VP}]_{S2}]_{NP}]_{PP}]_{AdjP}]_{S1}$

To account for the difference with respect to VP Deletion, it may then be noted that in (1′) the sequence following *to* is a VP and thus a target for the rule. In (2′), in contrast, it is not a VP, and cannot therefore be subject to VP Deletion.

There is thus a clear structural difference between the two patterns of complementation. However, it has been noted in some recent work that there are quite a number of matrix predicates in English that have exhibited an amount of flexibility and variation or even change with respect to the two types of complements in recent centuries (see Kjellmer 1980; Denison 1998 266; Rudanko 1998, 11 ff.; Rudanko 2000, chapters

2, 3, and 4), and the present investigation has the aim of contributing to research on such change.

In this study, one matrix predicate that has exhibited variation between *to* infinitive and *to -ing* complements in recent times is examined, namely, the adjective *accustomed*. A major objective is to shed additional light on the complement selection properties of this adjective, with the focus on sentential complements involving understood subjects. (For earlier work on the adjective, see Kjellmer 1980; Rudanko 2000, 90 f.; Vosberg 2003a.) The investigation also has a broader objective. This is to discuss two potentially significant factors of a more general nature that may have exerted an influence on complement selection involving the *to* infinitive and *to -ing* patterns in recent times and on trends of change affecting the two types of complements. As has been noted in earlier work, the changes have affected verbs, nouns, and adjectives. (For work on the change affecting the complement selection properties of a number of adjectives, including *used to*, in this connection, see Rudanko, 2000, 91.)

The change in question involves a radical change of the complement selection properties of *accustomed*, and of other relevant matrix predicates, and it is hoped that the discussion will shed light on the question of how and why such a change affecting complement selection may take place. *Accustomed* is a fairly frequently occurring adjective, and it frequently occurs with a complement, which makes it possible to examine factors affecting complement choice more easily than in the case of a predicate rarely found with a complement.

The discussion of recent usage is carried out taking account of both British and American English as the two major regional varieties of the language. One question is to examine whether it is possible to say that grammatical change affecting *accustomed* is at a more advanced stage in one regional variety than in the other.

As shown in Rudanko (2006) on the basis of the Chadwyck-Healey Corpus of Eighteenth-Century British Fiction, the adjective *accustomed* was frequent with sentential complements involving subject control in the eighteenth century. It was also shown in that study that all such complements were of the *to* infinitive type. It may be noted that the *OED* (1989) treatment of the adjective reflects this lack of variation. When illustrations are given of *accustomed* with the sense "to be habituated, to be in the habit, to be wont or used" (under sense 3.d of the verb *accustom*), only *to* infinitive complements are included in illustrations of sentential complements of the word in that standard work of reference.

To set the stage for the investigation of more recent English, the present study starts from the second part of the Corpus of Late Modern

English Texts, Extended Version, CLMETEV. This is a corpus of British English, of 5.8 million words, covering the period 1780–1850. (For principles governing the corpus, see De Smet 2005.) In the next section of this chapter, the Corpus of English Novels, the CEN, covering the period 1880–1920, is considered. While these two diachronic corpora are not entirely identical in their composition and the difference needs to be kept in mind, the CLMETEV contains large segments of novels, making it possible to consider the two corpora in succession. The CEN also makes it possible to study both British and American English.

The discussion of the CEN leads to a consideration of the *TIME* Corpus in Section 4 of this chapter. While the difference in text type should be kept in mind, the *TIME* Corpus affords an excellent database that makes it possible to follow the "fortunes" of the two types of sentential complements in some decades that have often been neglected and to assess the impact of different factors on complement choice during the period. The period studied here is from the 1930s to the 1950s.

As for present-day English, British and American, the main source was the Bank of English Corpus, with the data collection taking place in 2003/2004. In order to gain an up-to-date picture of current usage in British and American English, the language of newspapers and spoken English recommended themselves. For British English, the *Times* of London Corpus, of some 60 million words, and the Spoken British English Corpus, of some 36 million words, were selected. For American English, the United States News Corpus was a suitable corpus in the present connection, alongside the *Times* of London Corpus. The United States News Corpus, of some 38 million words, contains material from the *Chicago Sun-Times*, the *Denver Post*, the *New York Post*, the *Philadelphia Inquirer*, the *Seattle Times*, *USA Today*, and the *Washington Times*. In addition, it was desirable to include a corpus of spoken American English, alongside the Corpus of Spoken British English, and the Spoken American English Corpus of the Bank of English Corpus, of some 29 million words, was examined in this investigation. All these four corpora are of a reasonable size and thus appropriate for the study of complementation and of alternation between different types of complements.

2 Sentential complements in the second part of the CLMETEV and the Extraction Principle

The CLMETEV confirms earlier findings that the adjective *accustomed* was a fairly frequent one during the period 1780–1850. There are altogether 269 tokens of the adjective followed by the word *to* in the corpus.

Among them, there are some one hundred tokens of *to* NP complements, as in (7):

(7) He liked an attempt to baffle him; he was accustomed to it; it gave some exercise to his wits and his shrewdness. (1848, Elizabeth Gaskell, *Mary Barton*)

However, it is also clear from the corpus that apart from *to* NP complements, the adjective very frequently occurred with sentential complements during this period. The search performed retrieved 169 such complements, though the status of one of these is somewhat indeterminate. The huge majority of the tokens, 166 to be precise, are *to* infinitives, as in (8a–b):

(8) (a) Nobody yet suspected me, because they had been accustomed to view me as a creature of another species. (1798, Mary Wollstonecraft, *Maria*)
(b) The lines of her face were hard and rude, like that of a person accustomed to see without sympathizing in sights of misery. (1818, P. B. Shelly, *Frankenstein*)

There are also two or three tokens of *to -ing* complements in the corpus. The tokens in question are given in (9a–b) and (10):

(9) (a) In the morning I started with six horses and two Gauchos: the latter were capital men for the purpose, and well accustomed to living on their own resources. (1839, Charles Darwin, *Voyage of the Beagle*)
(b) The witnesses were called. At first they consisted principally of policemen, who, being much accustomed to giving evidence, knew what were the material points they were called on to prove ... (1848, Elizabeth Gaskell, *Mary Barton*)

(10) He started from Guasco, and being accustomed to travelling in the Cordillera, did not expect any difficulty in following the track to Copiago ... (1839, Charles Darwin, *Voyage of the Beagle)*

Not all *to -ing* sequences are convincing examples of *to -ing* complements. Thus, the status of (10) is slightly indeterminate, but the prepositional phrase that follows *travelling* may suggest a sentential interpretation.

Overall, the CLMETEV shows that during the period up to the middle of the nineteenth century *to* infinitives were more frequent than *to -ing*

complements by a huge margin. However, there are also first signs of the emergence of the *to -ing* pattern, confirming the argument presented in Rudanko (2006) that very occasionally *to -ing* complements were encountered in the first half of the nineteenth century.

At this point, it is of interest to examine the data from the point of view of extractions, partly in order to prepare the ground for the investigation of later periods. The reason is that extractions have been argued to impact complement choice. Here is Vosberg's formulation of the principle in question:

> **Extraction Principle**
>
> In the case of infinitival or gerundial complement options, the infinitive will tend to be favoured in environments where a complement of the subordinate clause is extracted (by topicalization, relativization, comparativization, or interrogation etc.) from its original position and crosses clause boundaries. (2003a, 308)[2]

It can be seen immediately that none of the two or three tokens of *to -ing* complements displays extraction, but it is of more interest to examine the 166 tokens of *to* infinitive complements to see whether extractions are found among them. There are clearly numerous tokens that come within the purview of the Extraction Principle as formulated by Vosberg. Here are two illustrations:

(11) (a) ... was oddly festooned with all manner of hedge-row, ditch, and field plants, which we are accustomed to call valueless, but which had a powerful effect either for good or for evil ... (1810, Elizabeth Gaskell, *Mary Barton*)

(b) ... and yet the air there was somehow purer than that which she has been accustomed to breathe. (1847/8, William Makepeace Thackeray, *Vanity Fair*)

In (11a–b) the extraction rule in question is Relativization.

There are altogether 35 cases of extraction of complements out of sentential complements of *accustomed* among the 166 tokens in the material.

While Vosberg (2003a, 308) deserves credit for providing a clear formulation of the Extraction Principle, it may be noted that extractions in English are by no means limited to the extraction of complements. In addition, adjuncts can be extracted, and it is proposed here that, while it is worthwhile keeping the distinction between complements and adjuncts in mind, it does not seem appropriate to exclude the

extraction of adjuncts from consideration in the present context. The Extraction Principle is thus modified as follows:

> **Extraction Principle, Modified**
>
> In the case of infinitival or gerundial complement options, the infinitive will tend to be favored in environments where a constituent of the subordinate clause is extracted from its original position and crosses clause boundaries.

Here are two illustrations of the extraction of adjuncts in the present material:

(12) (a) ... took his stand with Horatio, and Marcellus, one of the guard, upon the platform, where this apparition was accustomed to walk; ... (1807, Charles Lamb and Mary Lamb, *Tales from Shakespeare*)

(b) ... he went towards a spring at which he had been accustomed to drink, at the foot of the mountain. (1846, Leigh Hunt, *Stories from the Italian Poets*)

Both (12a) and (12b) involve extractions, and the gaps are in the sentential complements of *accustomed*, but in these cases the constituents in question are adjuncts, rather than complements.

There are altogether as many as 26 tokens of sentential complements of *accustomed* in the material involving the extraction of an adjunct. In order to include such constructions, the broader definition of the Extraction Principle is adopted here.

The rationale underlying the Extraction Principle has to do with the nature of infinitival and *-ing* complements with respect to sententiality and cognitive complexity. While both types of complement are sentential, they position themselves differently on the sententiality versus nouniness gradient. As was originally pointed out in great detail by Ross (1973), infinitival complements are more sentential than *-ing* complements. It is also possible to say that they are more explicitly sentential than *-ing* complements.

Given the difference between the two types of complement with respect to sententiality, it is then possible to invoke the Complexity Principle, formulated by Rohdenburg, as the consideration underlying the Extraction Principle.

> **Complexity Principle**
>
> In the case of more or less explicit grammatical options the more explicit one(s) will tend to be favoured in cognitively more complex environments. (1996, 151)

The motivation for the Complexity Principle, as presented by Rohdenburg (1996), is independent of extraction, but when extraction contexts are compared with canonical environments, that is, with those not involving extraction, it is clear that extraction contexts are cognitively more complex than canonical contexts. This is true both of the extraction of complements and of the extraction of adjuncts, which justifies the broadening of the Extraction Principle proposed above.

All tokens in the CLMETEV material that involve extraction are in accordance with the Extraction Principle in that the complement is of the *to* infinitival type.

Regarding the reason for the emergence of the *to -ing* pattern with *accustomed*, it should be seen as part of the more general spread of the *to -ing* pattern in relation to *to* infinitive complements. David Denison, discussing a number of matrix verbs, including *contribute* and *object*, that have gone over to selecting *to -ing* complements instead of *to* infinitives in recent centuries, makes this comment:

> The change in complementation reflects two long-term changes, I think. One is the rise of the prepositional verb, as OBJECT and *to* come to form a unit (and likewise the other cases ...). The other is the drift of the English infinitive from a nominal to a verbal character, now virtually complete, and the concomitant dissociation of the infinitive marker *to* from the homonymous preposition. (1998, 266)

In earlier publications, the present author has emphasized the role of two general factors aiding the spread of the *to -ing* pattern (Rudanko, 1998a, 345 f.; Rudanko, 2000, 35 f.). The factors were originally conceived of independently of Denison's approach, but they are in harmony with it and may be seen as amplifying it. The first is syntactic in nature (see also Kjellmer, 1980, 86 ff.). There is a connection between *to -ing* and *to* NP complements, in the sense that a matrix predicate that selected both *to* infinitive and *to* NP complements was and is more likely to come to select *to -ing* complements than a matrix predicate that selected *to* infinitive complements but no *to* NP complements. (For an example of a predicate of the latter type, see Rudanko, 2000, 95 f.) As observed above, the adjective *accustomed* was found with *to* NP complements very frequently in the eighteenth century, and therefore it was certainly a suitable candidate for *to -ing* complements from this point of view.

The other factor is semantic. Given that the preposition *to* prototypically expresses direction or movement, it can be expected that the *to -ing* pattern, where the *to*, as argued in Section 1, is a preposition,

is likely to emerge and to spread in cases where a meaning of direction or movement is prominent. It is natural to look for the meaning ingredient of direction or movement in the meaning of the matrix verb or adjective, as in the construction *reduce someone to doing something*, where the matrix verb *reduce* may be taken to express metaphorical movement (Rudanko, 2000, 48). In the present case, the sense of *accustomed*, glossed above as "to be habituated, to be in the habit, to be wont or used" (*OED*, under sense 3.d of the verb *accustom*), can suggest a goal or a target, designating what one is habituated or used to. The adjective is thus fully compatible with the preposition *to* from a semantic point of view.

An additional suggestion is advanced here. Examining the three earliest examples of the *to -ing* pattern in British English identified in Rudanko (2006), we cannot but notice that in two of the three, the copula is a more dynamic verb than the generally more frequent copular *be*. The proposal that dynamic copulas may have aided in the emergence of the *to -ing* pattern with *accustomed* is slightly unorthodox in that it involves extending the locus of where to look for the meaning ingredient of direction or movement beyond the head of the phrase that selects the complement, but some of the earliest examples of *to -ing* complements are suggestive that the nature of the copula may also have played a role in the emergence of the *to -ing* pattern with the adjective.

3 Sentential complements of *accustomed* during the period 1880–1922

The 43 years from 1880 to 1922 offer an exciting new window on the sentential complementation patterns of *accustomed*, at a time when any change was presumably still at an early stage. A study of this period is facilitated by the CEN, and the same two segments are used here as in Chapter 2. As may be recalled, the British English corpus is 12.3 million words, and the American English corpus is 5.9 million words. *Accustomed* is a relatively frequent adjective, and the two corpora are large enough to permit a study of its complements.

3.1 Sentential complements of *accustomed* in British English, 1880–1922

Turning to the British English corpus first, there are 491 tokens of the combination *accustomed* + *to* in it. *To* NP complements are very common

with the adjective, with over 200 tokens in the material. An example is given in (13):

(13) ... he spoke like one who is accustomed to the management of affairs. (1892, George Gissing, *Born in Exile*)

However, there are well over 200 tokens, 259 to be precise, of the string *accustomed* + *to* followed by a sentential complement involving subject control. This amounts to a frequency of about 21.1 per million words. The breakdown of the 259 tokens is given in Table 6.1.

Table 6.1 Sentential complements of *accustomed* involving subject control in the CEN

Type of complement	**Number of tokens**
to infinitive	239
to -ing	20

To infinitives thus outnumber *to-ing* complements by about 12 to 1. In terms of percentages, in about 92 percent of sentential complements involving subject control, the complement is of the *to* infinitive type, and in about 8 percent, the complement is of the *to -ing* type. The *to* infinitive pattern clearly predominates over the *to -ing* pattern. However, the percentage of the *to -ing* pattern is clearly much higher in the CEN than in the second part of the CLMETEV, examined above.

Here are some illustrations of the two types:

(14) (a) Weymark grew so accustomed to receiving Ida's note each Monday morning, that when for the first time it failed to come he was troubled seriously. (1884, George Gissing, *The Unclassed*)
(b) Dr. Baker, of Whindale, accustomed to trouncing Mrs. Seaton, would have thought him a poor creature. (1888, Humphry Ward, *Robert Elsmere*)
(c) "I am accustomed to being left," she answered gravely. (1894, Henry Seton Merriman, *With Edged Tools*)
(d) And then Aggie put her face close, as women do who are accustomed to talking in the streets, and said ... (1897, Hall Caine, *The Christian*)
(e) "They have got accustomed to seeing you look in upon them at all hours, – and, of course, they miss you." (1904, Marie Corelli, *God's Good Man*)

(f) ... preference being given to some hardy breed of trout, accustomed to roughing it. (1909, Jerome Kapla Jerome, *They and I*)

(15) (a) ... her lips, too, were weakly parted, and seemed trembling to a sob, whilst sorrow only made the child close hers the firmer. In the one case a pallor not merely of present illness, but that wasting whiteness which is only seen on faces accustomed to borrow artificial hues; in the other, a healthy pearl-tint, the gleamings and gradations of a perfect complexion. (1884, George Gissing, *The Unclassed*)

(b) Her voice dropped, a little, with a pathetic expostulating intonation in it, as of one accustomed to be rebuked. (1888, Humphry Ward, *Robert Elsmere*)

(c) He spoke with the easy independence of the man of the world, accustomed to feel his way in strange places – not heeding what opinion he might raise – what criticism he might brave. (1894, Henry Seton Merriman, *With Edged Tools*)

(d) The Prime Minister glanced at him steadily, with the concentrated expression of a man who is accustomed to penetrate the thoughts and feelings of another. (1897, Hall Caine, *The Christian*)

(e) He was very silent, – and Julian Adderley, generally accustomed to talk for two, seemed disposed to an equal taciturnity. (1904, Marie Corelli, *God's Good Man*)

(f) Old friends, accustomed to enjoy with her the luxury of plain speech, wondered in vain what they had done to offend her. (1904, Jerome Kapla Jerome, *Tommy and Co.*)

The illustrations of *to -ing* complements were collected first. They were selected from different authors in the corpus, with chronological intervals of the illustrations ranging from three to seven years. The illustrations of the *to* infinitive complements were then chosen as a second step, with priority given to the same authors, and indeed to the same works as were featured as the sources of the corresponding illustrations of the *to -ing* tokens. In all cases but one, an illustration of both types of complement was found in the same volume. In the case of the one exception (14f), an illustration of the *to* infinitive complement, given as (15f), was taken from another book by the same author.

The illustrations testify to the presence of *to -ing* complements in the works of several authors during this period. However, it may also be observed that 7 of the 20 tokens of *to -ing* complements are in the works of one and the same author, Henry Seton Merriman. In his works, the total number of *to* infinitive complements involving subject control is

10. However, this is exceptional, for in the works of most authors *to* infinitives predominate more clearly. This is not unexpected, given the overall percentages. The percentage of *to -ing* complements is a mere 8.1 percent of the total of sentential complements involving subject control. If the works of Henry Seton Merriman are set aside, the percentage of *to -ing* complements drops to about 5 percent. It should be recognized, though, that even this percentage is far above what was observed in the second part of the CLMETEV.

Regarding the reason or reasons for the emergence of the new pattern, it should be seen as part of a broader shift in the system of English predicate complementation, as discussed in Section 2. Here, one or two additional comments may be made.

David Allerton (1988) compares *to* infinitives and *-ing* complements of different types and includes *-ing* complements introduced by prepositions in the discussion. In a concluding section, he suggests that the "infinitive-gerund distinction, in its healthy state, can be summed up" with the features listed in Table 6.2.

Table 6.2 Allerton's view of features pertinent to the infinitive-gerund distinction

Infinitive	**Gerund**
infrequent activity	regular activity
intermittent activity	continuous activity
interrupted activity	continuing activity
uncompleted activity	completed activity
contingent / possible event	event presented factually
particular time and place	neutral time and place
specific subject	non-specific subject
more verbal character	more nominal character

Source: Allerton 1988, 21.

The properties listed in Table 6.2 are not of course meant to imply that the differences always surface in the way described. For instance, the idea that an *-ing* complement may involve a non-specific subject may hold for a sentence such as *John proposed going by train* (sentence (10b) in Allerton 1988, 13; see also Duffley 2000, 238), but does not appear pertinent to the present data on *accustomed*. For instance, in (14a), it seems clear that the understood subject of *receiving* is coreferential with the higher subject and is therefore quite specific.

Writing over 100 years ago, the English grammarian Henry Sweet also considered *to* infinitives and *-ing* complements together, offering a

comparative statement on them. He used the term "supine" for an infinitive with *to*, and viewed such infinitives as noun-verbals (Sweet 1900, 115). Instead of *-ing* complements, he spoke of gerunds, and he also viewed gerunds as noun-verbals, making the point that the gerund is "more of a noun [than is an infinitive or a supine], inasmuch as it can be joined to another noun by means of a preposition" (Sweet 1900, 116).

In the second part of his grammar, Sweet then compared the supine and the gerund:

> **2326.** When the supine is substituted for the gerund in the subject-relation, it seems to bring out more strongly the attributes of phenomenality – action and quickness; thus *to see is to believe* means "seeing is immediately followed by believing," while *seeing is believing* means "seeing as a general rule is followed by belief." We could hardly substitute the gerund for the infinitive in *to know him is to love him* without weakening the sense – still less in *to be or not to be, that is the question*. (1903, 120)

With respect to what here would be called sentential complements selected by matrix verbs, Sweet made this comment:

> **2327.** Some verbs, such as *like*, *prefer*, can take either the supine or the gerund in the object-relation. Here, again, the general difference between *I like to get up early* and *I like getting up early* seems to be that the latter implies duration and habit. But it is often difficult to see any distinction. (1903, 120)

From Sweet's comments it is thus possible to conclude that he was aware of the possibility that both types of complement may be selected by certain matrix predicates. Further, he attempted to identify a semantic difference between the two types of complement, associating the notions of "action and quickness" with the *to* infinitive and those of "duration and habit" with the *-ing* form. Allerton (1988) has an extensive bibliography, but he does not mention Sweet. However, the notion of duration is similar to the notion of continuous activity, and there is thus some common ground between the two analyses, even though they are almost 100 years apart.

Neither Sweet nor Allerton make a comment on *to* infinitive and *to -ing* complements of the adjective *accustomed* specifically. However, the great Dutch grammarian Poutsma does. The fullest discussion of the point comes in his *Dictionary* (Poutsma n.d.). This is a monumental work, but unfortunately it remains unpublished. It is also not possible to

know precisely when he wrote the comment on *accustomed* that appears in the *Dictionary*, but there are illustrations of usage from the 1930s in the work, and it would seem reasonable to suppose that he made his comment at some point in the 1930s, that is, soon after the closing date of the CEN.

Here is the comment that he makes on the two patterns under consideration in Poutsma (n.d.):

> The infinitive construction is, presumably, more common than the gerund-construction, and appears to be used to the exclusion of the latter when mere recurrency of an action or state, without any notion of a habit or custom, is in question.

Poutsma thus associates the *to* infinitive complement especially with "mere recurrency of an action" and the *to -ing* pattern with the "notion of a habit or custom."

Poutsma's comment, presumably made in the 1930s, is of considerable interest. It testifies to the continuing predominance of *to* infinitives over *to -ing* complements, but it also suggests that the latter had gained in prominence in relation to the former compared with what was here observed to be the case in the nineteenth century.

His comment is also pertinent to the argument selection properties of the adjective in that there may have been scope for the kind of semantic differentiation that he proposed during a period of historical development. To extend Poutsma's comment slightly, it may be possible to say that with a *to -ing* complement the adjective may convey the sense of "used to," with the complement of the adjective expressing a regular situation. As for the *to* infinitive complement, the sense of the adjective may be close to that of "tend," with the complement adjective expressing a regular practice. There may thus be more of a sense of choice on the part of the referent of the matrix subject in the case of the *to* infinitive complement than in the case of the *to -ing* complement. (The author is indebted to Ian Gurney [personal communication], for commenting on the semantic distinction.)

The task of applying notions identified in this brief survey of work comparing the meanings of *-ing* and *to* infinitive complements to the authentic data in (14a–f) and (15a–f) is not a routine exercise. The notions are not always applicable. It is not clear to the present investigator how, for instance, the dichotomy between "infrequent activity" and "regular activity," which is at the top of Allerton's list, can shed light on the contrasts with the particular adjective *accustomed*. As for Sweet's

notion of habit, linked *to -ing* forms, it does apply to the *to -ing* complements, but it seems hard to exclude it from being relevant to at least some of the *to* infinitives, as in (15d) and (15e).

As for the notion of choice, identified as a concept favoring a *to* infinitive complement and disfavoring a *to -ing* complement, it is developed more fully in Section 4, because in the corpus examined there the proportions of the two types of sentential complement are more evenly matched, affording an opportunity for a more extended discussion. In the present database, the proportion of *to* infinitive complements is overwhelming in relation to *to -ing* complements, but it may still be noted that the referent of the higher subject is the same as the referent of the lower subject for both *to* infinitive and *to -ing* complements of *accustomed*, since both are subject control patterns. The lower subject gets its semantic role from the predicate of the lower clause. From the point of view of the choice distinction, it is therefore helpful to focus on the lower subject. It is observed that lack of choice on the part of the lower subject with respect to the activity or action expressed in the lower clause does seem to be involved in a number of the *to -ing* complements illustrated in (14a–f), as in (14a) and (14c). However, the opposite appears to be the case in (14b) and (14d). Further, (15b) illustrates a *to* infinitive complement where there is also lack of choice.

Such "lack of choice" interpretations arise regularly when the lower clause is in the passive voice, for in such sentences the understood lower subject prototypically has the semantic role of Patient, as in (14c) and (15b). From this point of view, it is of interest to examine the whole of the CEN for cases of passive lower sentences in sentential complements of *accustomed*. Their total is 25. It turns out that in 20 of these, including (15b), the complement is of the *to* infinitival type and that in 5, of which (14c) is one, the complement is of the *to -ing* type.

Here are some additional illustrations of *to* infinitives and *to -ing* complements from the British English material:

(16) (a) ... she was a person in authority, one accustomed to be feared because of her black arts and her office. (1908, Henry Rider Haggard, *The Ghost Kings*)

(b) From among the new-comers rode out a fat, coarse man, with a pompous air of one who is accustomed to be obeyed, ... (1909, Henry Rider Haggard, *The Lady of Blossholme*)

(c) Lady Coryston frowned. She was not accustomed to be addressed in so pessimistic a tone, ... (1913, Humphry Ward, *The Coryston Family*)

(17) (a) ... and when she had grown in part accustomed to being carried up and down, Maryllia suddenly expressed a wish to hear the village choir. (1904, Marie Corelli, *God's Good Man*)
(b) Lord Ferriby spoke not with the ease of long practice, but with the assurance of one accustomed to being heard with patience. (1913, Henry Seton Merriman, *Roden's Corner*)

The evidence of the present corpus does not give definitive support for the idea that passive lower clauses might have favored *to -ing* complements during the period in question, but the proportion of *to -ing* complements in relation to *to* infinitives – 5 tokens versus 20 *to* infinitives – is suggestive in the context of the overall proportions of the two types of complement.

Above, it was also suggested on the basis of Rudanko (2006), as a possibility worth investigating, that the nature of the copular matrix verb might play a role regarding the complement selection properties of *accustomed*. More specifically, it was proposed that dynamic matrix verbs, of the type of *become*, *grow*, and *get*, might favor the emergence of the *to -ing* pattern. A reason for this might be the goal-oriented and thus somewhat dynamic nature of the preposition *to*, found in the *to -ing* pattern.

Unfortunately, there are only ten tokens of dynamic verbs with *accustomed* in the material, and firm conclusions cannot be based on such a small number of tokens. For what it is worth, among the ten, there are five tokens of the *to -ing* pattern, including (14a) and (14e), and five of the *to* infinitive. Here are two illustrations of the latter type:

(18) (a) Mrs. Abbott, whom, without change of feeling, she grew accustomed to see frequently, introduced her to the Langland family, ... (1897, George Gissing, *The Whirlpool*)
(b) In his life of self-renunciation among the poorer classes, he had grown accustomed to pity women, – to look upon them more or less as frail, broken creatures needing help and support, ... (1900, Marie Corelli, *The Master Christian*)

It is noticeable that sentence (18a) also involves the extraction of a constituent, a factor that, as noted in Section 2, generally favors *to* infinitives over *to -ing* complements. While this consideration is not applicable to (18b), it is of interest to observe that it is applicable to another one of the five *to* infinitive complements found with a dynamic matrix verb.

It is thus possible to say that there may be an interplay of factors at work in complement selection. With respect to dynamic matrix verbs, the numbers of tokens are low, only ten altogether, but the relatively high proportion of *to -ing* complements among them and the low proportion of those *to* infinitives that are not promoted by extraction, suggest that the nature of the matrix verb found with *accustomed* might indeed have played some role, but this suggestion constitutes more an invitation to undertake further work than a confirmed finding.

Extractions also merit discussion in their own right. As noted in Section 2, extractions have emerged in the literature as a factor favoring *to* infinitives in relation to *to -ing* complements, including *-ing* complements introduced by prepositions, and thus slowing down the emergence of the *to -ing* pattern.

In Section 2, a definition of extraction was quoted from Vosberg (2003a), which restricted the concept of extraction to the extraction of complements, but this was broadened to include the extraction of adjuncts. In the present material, the constituents extracted are often complements in the CEN, as they were in the CLMETEV. Here are two illustrations:

(19) (a) ... he was irritable, vaguely discontented, and had even a moment of nausea, perhaps the result of tobacco stronger than he was accustomed to smoke. (1892, George Gissing, *Born in Exile*)
(b) ... his white head drooped under the old wideawake that he was accustomed to wear in the garden. (1900, Humphry Ward, *Eleanor*)

The complements subject to extraction are generally direct objects, as in (19a–b). The sentences also illustrate two of the extraction types that Vosberg mentions in his definition. In (19a) the operative rule is Comparativization, and in (19b) the operative rule is Relativization. In both cases a complement is extracted out of a lower clause. The rule of Relativization is the most frequent rule to apply in such cases in the present material.

However, adjuncts may likewise sometimes be subject to extraction, and this is where the Modified Extraction Principle comes into play. There are as many as 69 extractions among the 259 tokens in the present material that involve the extraction of a constituent out of a sentential complement. The majority, 39 of them, involve the extraction of a complement, but there are as many as 30 that involve the extraction of an adjunct. The relevance of the broader definition of the concept of extraction is thus confirmed.

As regards the form of the sentential complement in cases of extraction, the Extraction Principle is confirmed, for all 69 sentences with

extraction do indeed display *to* infinitival complements. Extraction is thus a factor, and it has statistical significance, at the 0.05 level, according to the chi-square test (df = 1).

Here are three more examples of extraction. They illustrate *to* infinitive complements in extraction contexts. They also show that different types of adjuncts may be subject to extraction:

(20) (a) "By-the-bye," he said, looking at his watch, "it is the hour at which ladies are accustomed to drink tea." (1890, George Gissing, *The Emancipated*)
(b) ... breakfast, a meal at which Catherine Harland never appeared, and where I was accustomed to take the head of the table, at Mr. Harland's request, to dispense tea and coffee. (1911, Marie Corelli, *The Life Everlasting*)
(c) "They won't heed me," replied Mrs. Mutimer, using the tone of little interest with which she was accustomed to speak of details of the new order. (1886, George Gissing, *Demos*)

In (20a) the constituent extracted is an adjunct of time, in (20b) it is one of place, and in (20c) it is one of manner. The complements are invariably of the *to* infinitive type.

To sum up the present discussion, the examination of the British English part of the CEN substantiates the presence of *to -ing* complements in British English during the period 1880–1920 and also shows that the frequency of such complements is higher than in the second part of the CLMETEV (Section 2). The material also shows that *to* infinitive complements were clearly predominant in the material in relation to *to -ing* complements in the complements of *accustomed*.

As regards the emergence of the *to -ing* pattern with *accustomed*, it should be seen in the context of the general advance of the pattern, fostered by the frequency of *to* NP complements as a general prerequisite. Factors specific to *accustomed* are harder to identify because the frequency of *to -ing* complements is still relatively low in the corpus. One factor that deserves further investigation is the nature of the higher verb, with dynamic verbs conceivably promoting the *to -ing* pattern because of the goal-oriented nature of the preposition *to*. Another factor that deserves further investigation is the idea that there may be an incipient tendency to associate the *to -ing* pattern with complements in which the lower subject has a Patient role, as in passives. Other than these factors, it may be a matter of individual preferences of the authors in question.

To elaborate on individual preferences, it is of interest to examine Henry Seton Merriman in more detail, because it is in his works that the

proportion of *to -ing* complements in relation to *to* infinitives is so high. The corpus includes material from 12 novels by Merriman, with the individual samples being in the range of about 70,000 words to about 90,000 words. Table 6.3 gives information on these and the tokens of the two types of sentential complements.

Table 6.3 Sentential complements of *accustomed* in novels by Henry Seton Merriman

Year	**Title**	***to* inf.**	***to -ing***
1892	*From one Generation to Another*	1	0
1892	*The Slave of the Lamp*	1	0
1894	*With Edged Tools*	1	3
1895	*The Grey Lady*	1	1
1895	*The Sowers*	1	0
1897	*In Kedar's Tents*	1	0
1900	*The Isle of Unrest*	0	0
1901	*The Velvet Glove*	1	1
1902	*The Vultures*	1	0
1903	*Barlasch of the Guard*	1	0
1904	*The Last Hope*	0	0
1913	*Roden's Corner*	1	2
Total		10	7

It is seen in Table 6.3 that, even though the numbers of tokens are low, there are single texts by Henry Seton Merriman where both forms are found. Here are illustrations from three of the books in question:

(21) (a) He spoke with the easy independence of the man of the world, accustomed to feel his way in strange places (1894, Henry Seton Merriman, *With Edged Tools*)

(b) "Do not trouble about me," said Sir John. "I am accustomed to being left." (1894, Henry Seton Merriman, *With Edged Tools*)

(22) (a) ... her mother, whose sense of logic did not run to the perception that Luke's feelings were beside the point discreetly collapsed into her voluminous wraps. She was, however, quite accustomed to be treated thus with contumely, and then later to see her suggestions acted upon – a feminine consolation which men would do well to take unto themselves. (1895, Henry Seton Merriman, *The Grey Lady*)

(b) "Do you?" the girl inquired, with an enigmatical smile, and her answer was in his eyes. She did not want him to grow accustomed to saying farewell to her. Luke FitzHenry was not inclined to sociability ... (1985, Henry Seton Merriman, *The Grey Lady*)

(23) (a) "Ah!" he said, in the quiet voice of one who is accustomed to speak in the presence of sleep, ... (1901, Henry Seton Merriman, *The Velvet Glove*)
(b) The friar was probably accustomed to seeing the Palacio Sarrion rigidly shut up. (1901, Henry Seton Merriman, *The Velvet Glove*)

With respect to (22a) and (22b), it is observed that in (22a) the two *to* infinitives are coordinated, and there is an insertion between the two conjuncts. The complexity of the construction involving an insertion may have favored the *to* infinitive complement in the case of the second conjunct, as the more explicitly sentential type of complement, in accordance with Rohdenburg's Complexity Principle, cited in Section 2.

However, in the case of the other tokens, including the first conjunct of (22a), it is more difficult to appeal to a complexity factor or any other clearly definable difference in play. The lower clause of the first conjunct in (22a) is in the passive and the sentence has a *to* infinitive complement; and the lower clause of (21b) is likewise in the passive, but the complement is of the *to -ing* type. It is hard to make out a distinction between the two types of complements in the two pairs in terms of meaning.

Under these circumstances, it seems reasonable – recalling the sharply differing grammatical properties of the two types of complement – to refer to the availability of competing grammars for Henry Seton Merriman. Or, more accurately, the competition is between two distinct alternatives within a grammar. Here, we may refer to a formulation by Susan Pintzuk. While not discussing complementation structures specifically, she observes succinctly that "it is not two entire grammars that are in competition, but rather two contradictory options within a grammar" (Pintzuk 2003, 516). The options are certainly contradictory from a grammatical point of view in the present case.

The competition between two contradictory options is highly salient to grammatical change, because such variation is "diachronically unstable" (Pintzuk 2003, 510).

At this point we may recall a comment made on such competition and language change by Anthony Kroch. He writes:

> The best-studied cases of long-term syntactic drift are most plausibly cases of grammar competition (that is, syntactic diglossia) in which the competing forms may differ in social register, with an unreflecting vernacular variant slowly driving a conservative written one out of use [...] Where no such process is at work, there is evidence that usage frequencies remain stable over long periods of time. (2001, 702–703)

It is normal to understand the notion of syntactic diglossia in this way to refer to variants that belong to different social registers, with one grammar used "for formal, institutional contexts and the other in less formal contexts" (Roberts 2007, 324 f.). Under these circumstances, the present variation takes on additional interest. The reason is that it is hard to make out a difference in social register between the usages in (21)–(23). Five of the sentences are from the author's narration and the remaining one, from fictional dialogue, likewise represents a formal register. Yet it bears emphasizing once more that the two variants are sharply different syntactically. It is thus hard to escape the conclusion that the present case is one of competing options within a grammar that do *not* differ in social register, that is, a case of non-diglossic syntactic variation between competing options.

Given the change that we are dealing with here, to be related to present-day English below, the consequence is that the present case shows that the competition between two contradictory grammatical options may be diachronically unstable even when it is non-diglossic in nature.

In order further to examine the need to postulate non-diglossic syntactic variation between competing options, we may turn to Mrs. Humphry Ward's *Robert Elsmere*. This has been chosen for attention here because as far as the present author is aware, it is in this particular text that the largest number of *to -ing* complements is found with *accustomed* in the first decade of the present corpus. There are altogether 12 tokens of sentential complements of *accustomed*, 9 of them are of the *to* infinitive type and 3 of the *to -ing* type. Because of the theoretical importance of the point, it is advisable to cite all 12 tokens. All the tokens in (24a–i) and (25a–c) are from Mrs. Humphry Ward, *Robert Elsmere* (1888):

(24) (a) She was accustomed, as she boldly avowed, to shut herself up at the beginning of each season of the year for two days' meditation on the subject.
(b) ... there was a striking dignity and weight in his look and manner which suddenly aroused in Catherine the sense that she was speaking to a man of distinction, accustomed to deal on equal terms with the large things of life.
(c) ... he ran over the shelves with the practised eye of one accustomed to deal with books.
(d) Her voice dropped, a little, with a pathetic expostulating intonation in it, as of one accustomed to be rebuked.

(e) ... Mr. Wendover, on the rare occasions when he held forth, was accustomed to be listened to; ...
(f) At nine o'clock he crept out into the frosty daylight, found a commissionaire who was accustomed to do errands for him, and sent him with a letter to Lerwick Gardens.
(g) He was accustomed to maintain in his arguments with Hugh Flaxman that the orthodox teaching ...
(h) ... as, in spite of their speculative differences, he had always been accustomed to talk freely with Robert he now talked freely to Robert plus his wife, ...
(i) Lady Aubrey was lying back on the velvet sofa, a little green paroquet that was accustomed to wander tamely about the room was perching on her hand.

(25) (a) The girls, who had by this time established her between them on a garden-seat, looked at her with smiling composure. They were accustomed to letting her have her budget out.
(b) 'Mayn't I go with you?' 'My dear, certainly not! As if I wasn't accustomed to going about alone at my time of life! ...
(c) Dr. Baker, of Whindale, accustomed to trouncing Mrs. Seaton, would have thought him a poor creature.

The evidence of *Robert Elsmere* shows that competing parametric options were part of Mrs. Humphry Ward's grammar. Further, it can be observed that all the tokens in (24a–i) and (25a–c), apart from (25b), are from the author's narration, and it is again hard to escape the conclusion that we are dealing here with non-diglossic syntactic competition between two mutually incompatible parametric options within Mrs. Humphry Ward's grammar. This finding again points to the need to view even non-diglossic grammar competition as at least potentially unstable in nature.

3.2 Sentential complements of *accustomed* in American English, 1880–1922

In the American English part of the CEN, there are 212 tokens of the string *accustomed to* in the corpus. In one of them, the word *accustomed* appears to represent the past participle of the verb *accustom*, rather than the adjective *accustomed*:

(26) ... he is able to understand his superiors, provided that he is gradually accustomed to seeing them; unfortunately this occurs but rarely. (1887, Francis Marion Crawford, *Saracinesca*)

In the rest of the cases the word *accustomed* represents the adjective *accustomed*.

As regards the complements of the adjective *accustomed*, *to* NP complements are very frequent, with almost 100 tokens. Sentential complements involving subject control are also frequent, and there are 116 of these. This amounts to a frequency of 19.7 per million words, which is fairly similar to the corresponding frequency in the British English part of the corpus.

Both *to* infinitives and *to -ing* complements are found. Their frequencies are given in Table 6.4.

Table 6.4 Sentential complements of *accustomed* involving subject control in the American English part of the CEN

Complement	**Frequency**
to infinitive	95
to -ing	21

The frequency of the *to -ing* pattern is thus 3.6 per one million words in the American English corpus. This is considerably higher than in the British English part of the corpus, where the corresponding frequency was 1.9 per one million words.

The difference may also be expressed in percentages. It may be recalled that the percentage of *to -ing* complements was about 8 percent of the total of sentential complements involving subject control in the case of the British English part of the corpus. In contrast, in the case of the American English part of the corpus, the corresponding percentage is as high as 18 per cent.

Here are some illustrations of both patterns:

(27) (a) It happens even to men of masterful character, accustomed to directing events. (1883, Francis Marion Crawford, *Doctor Claudius*)

(b) But after two or three months, when you have all become acquainted, and the children are accustomed to listening attentively, I almost hope you will allow a few nurses to come in and sit in the corners, – (1893, Kate Douglas Wiggin, *Polly Oliver's Problem*)

(c) Had Franklin not been a good rider, and accustomed to keeping his head while sitting half-broken mounts, he must have suffered

almost instantaneous defeat in this sudden encounter ... (1900, Emerson Hough, *The Girl at the Halfway House*)

(d) "Why, you horrid thing!" said Dorothy, who was not accustomed to being treated so rudely. (1907, Lyman Frank Baum, *Ozma of Oz*)

(e) "Why does SHE want me? She's never seen me!" Her tone implied that she had long been accustomed to being "wanted" by those who had. (1913, Edith Wharton, *The Custom of the Country*)

(28) (a) Foreign women, especially Russians, are accustomed to omit any title of prefix, and to call their intimate friends by their simple names, ... (1883, Francis Marion Crawford, *Doctor Claudius*)

(b) ... a key where nobody but a soprano skylark, accustomed to warble at a great height, could possibly sing. (1896, Kate Douglas Wiggin, *The Village Watchtower*)

(c) Close at the elbow of Madame de Tencin steps a figure of different type, a woman not accustomed to please by brilliance of mind or vivacity of speech, but by sheer femininity of face and form. (1902, Emerson Hough, *The Mississippi Bubble*)

(d) "I am a lawyer," said the corkscrew, proudly. "I am accustomed to appear at the bar." (1910, Lyman Frank Baum, *The Emerald City of Oz*)

(e) ... her husband's face was the barometer in which she had long been accustomed to read the leave to go on unrestrictedly, or the warning to pause and abstain ... (1913, Edith Wharton, *The Custom of the Country*)

As in the case of the British English corpus, the illustrations of *to -ing* complements were selected first, and then the same authors, and the same books, wherever possible, were consulted for tokens of *to* infinitive complements. In every case, a *to* infinitive complement was also found in the writings of the same author. This is another indication of the presence of alternative grammars in the minds of the speakers in question at that time.

As noted, with a frequency of 3.6 per one million words, *to -ing* complements are much more frequent in the American English material than in the British English part of the corpus. While the overall number of tokens of the *to -ing* pattern is not very high, it is of interest to examine the nature of these tokens, to see whether the factors identified in the discussion of the British English material as potentially impacting the choice of complement might play a role in the present corpus.

The dynamic versus stative distinction, with respect to the verb found with *accustomed*, emerged above as a factor deserving further investigation. However, when verbs found with *accustomed* in the American English material are examined from this point of view, no firm conclusions can be reached either way, for there appears to be only a single instance of a dynamic copula in the present material. It is given in (29):

(29) The servants grew accustomed to seeing him wander aimlessly about the grounds, his pipe always in his mouth, ... (1906, Lyman Frank Baum, *Aunt Jane's Nieces*)

The complement in (29) is of the *to -ing* type. The presence of such a token in the corpus and the lack of any *to* infinitive complements in dynamic contexts are suggestive when these findings are taken together, but they hardly constitute conclusive evidence regarding the presence of a dynamic matrix verb as a factor promoting the emergence and the spread of the *to -ing* pattern at the expense of the *to* infinitive pattern. The findings are consistent with such a possibility, and they indicate the need to undertake further work on the factor when larger corpora become available.

Another suggestion made above concerned a potential difference in meaning between the two variants, with the *to* infinitive being linked to the notion of choice on the part of the referent of PRO and the *to -ing* complement being linked to the notion of being accustomed to an existing situation, where the notion of choice is de-emphasized. In the latter case, a prototypical semantic role for PRO is Patient or Undergoer, with the lower verb in the passive voice.

There are seven tokens of sentences where the lower verb is in the passive voice, with PRO having the role of Patient. In five of these, the complement does indeed turn out to be of the *to -ing* form. Two of these were cited above as (27d) and (27e). Here are the remaining three and the two tokens of *to* infinitive complements of this type:

(30) (a) "Will you believe me?" "Are you accustomed to being doubted, that you ask?" (1892, Francis Marion Crawford, *Don Orsino*)
(b) "But I am not accustomed to being defended, least of all against you, Madame." (1892, Francis Marion Crawford, *Don Orsino*)
(c) And over here they're accustomed to being bargained with – you ought to see how I've beaten them down. (1913, Edith Wharton, *The Custom of the Country*)

(31) (a) ... Unorna was proud with the scarcely reasoning pride of a lawless, highly gifted nature, accustomed to be obeyed and little used to bending under any influence. (1891, Francis Marion Crawford, *The Witch of Prague*)

(b) The next morning, when I wakened early, my first thought was to look out, and there on the sunny greensward where they were accustomed to be fed, Sir Muscovy, Lady Blanche, and their humble maid, Malardina Crippletoes, were scattering their own breakfast before ... (1902, Kate Douglas Wiggin, *The Diary of a Goose Girl*)

The numbers of tokens are low and no firm conclusion can be based on them, but they are suggestive in the context of the overall frequencies of the two patterns. In examples such as (27d–e) and (30a–c), the *to -ing* complement has a distinctive semantic coloring, and the distinctive semantic niche in question may have acted as a springboard for further expansion.

It is also worth noting that in (31b), which is one of the two *to* infinitive constructions where PRO has the semantic role of Patient with a passive lower clause in the material, another factor identified above as impacting complement choice is operative. Sentence (31b) involves extraction – the extraction of a locative adjunct, to be more precise. As pointed out, extraction is a factor in general favoring *to* infinitives in relation to *-ing* complements, including *to -ing* complements. The *to* infinitive in (31b) is thus consistent with the Extraction Principle.

It is naturally of interest at this point also to examine extractions in the material more generally. Here, the broader view of extraction is adopted, as outlined above, and adjunct extractions are included. There are 32 extractions in the corpus altogether. The majority of them involve the extraction of a complement. Here are three illustrations:

(32) (a) But he was not without human feeling, and showed a becoming regret at the sad end of a man he had been accustomed to see so frequently. (1887, Francis Marion Crawford, *Saracinesca*)

(b) ... and then broke the silence by saying, gravely, but in more gentle tones than she was accustomed to use ... (1906, Lyman Frank Baum, *Aunt Jane's Nieces*)

(c) ... everyone who knew O'Gorman had often heard of his daughter Josie, of whom he was accustomed to speak with infinite pride. (1916, Lyman Frank Baum, *Mary Louise*)

As in the British English data, the constituent that is most often extracted in complement extractions is a direct object, as in (32a) and (32b). Prepositional complements are extracted much more rarely, but occasional examples are found, as in (32c).

In accordance with the modified definition of the Extraction Principle, extractions of adjuncts are also considered here. Here are some illustrations:

(33) (a) ... he called late in the afternoon upon the day when Mrs. Goddard and little Eleanor were accustomed to dine at the vicarage, ... (1886, Francis Marion Crawford, *A Tale of a Lonely Parish*)

(b) There was no need to seat them, for they found the little table in the corner where they were accustomed to eat, and sat down. (1906, Lyman Frank Baum, *Aunt Jane's Nieces*)

In (33a), the constituent extracted is an adjunct of time, in (33b) an adjunct of place.

Regarding the type of complement in extraction contexts, in 31 of the extractions, the complement is of the *to* infinitive type, as expected in accordance with the Extraction Principle as extended above. However, in one it is of the *to -ing* type. Here is the example in question:

(34) ... her eyes fixed on the stage, and revealing, as she leaned forward, a little more shoulder and bosom than New York was accustomed to seeing, at least in ladies who had reasons for wishing to pass unnoticed. (1920, Edith Wharton, *The Age of Innocence*)

The investigator should be wary of exaggerating the importance of one single token of a particular construction in a corpus. However, the occurrence of a *to -ing* complement in an extraction context is still worth noting. It reinforces the effect of other extractions found in early American English in Rudanko (2006), and such extractions constitute qualitative evidence that American English may have been in the lead in the spread of the *to -ing* pattern with *accustomed*. This reinforces the quantitative evidence based on numbers of tokens of the *to -ing* pattern in the British English and American English databases.

As far as individual preferences are concerned, the largest number of tokens of *to -ing* complements in the works of any single author is six (in

the works of Francis Joan Crawford). However, *to* infinitives are clearly more frequent than *to -ing* complements with *accustomed* in her work overall, and in one volume alone, *Doctor Claudius* from 1882, there are seven *to* infinitives, and in the later work *The Witch of Prague*, from 1891, there are six of them, with only a single *to -ing* complement in either volume.

Another author who deserves a comment is Edith Wharton. Her work belongs more to the latter half of the period, and she has five *to -ing* complements with *accustomed*. Table 6.5 gives information on the two types of complements in her work.

Table 6.5 The incidence of *to* infinitive and *to -ing* complements of *accustomed* in samples of Edith Wharton's works in the CEN

Year	Title	*to* inf.	*to -ing*
1900	*The Touchstone*	1	0
1902	*The Valley of Decision*	2	0
1903	*Sanctuary*	0	0
1905	*The House of Mirth*	8	0
1907	*Madame de Treymes*	0	0
1911	*Ethan Forme*	0	0
1912	*The Reef*	1	0
1913	*The Custom of the Country*	1	3
1920	*The Age of Innocence*	1	1
1922	*The Glimpses of the Moon*	0	1
Total		14	5

The number of *to* infinitives is higher in Edith Wharton's work than the number of *to -ing* complements, but in her case the *to* infinitives are clustered in *The House of Mirth*, from 1905, with eight tokens. As regards the last decade of the corpus, from 1912 to 1922, material is included from four books by Wharton, and all five tokens of *to -ing* complements come from this period, and only three *to* infinitive complements come from this period. This is suggestive of a shift in favor of the *to -ing* pattern in the course of her career, but the numbers are too low to constitute conclusive proof.

Nevertheless, it is of interest to examine the four tokens in her 1913 book, because it appears to be pivotal in the progression of her usage. They are given in (35) and (36a–c).

(35) ...her husband's face was the barometer in which she had long been accustomed to read the leave to go on unrestrictedly, or the

warning to pause and abstain till the coming storm should be weathered. (1913, Edith Wharton, *The Custom of the Country*)

(36) (a) " ... Why does SHE want me? She's never seen me!" Her tone implied that she had long been accustomed to being "wanted" by those who had. (1913, Edith Wharton, *The Custom of the Country*)

(b) She was a little disappointed that he did not compliment her on her dress or her hair – Undine was accustomed to hearing a great deal about her hair, and ... (1913, Edith Wharton, *The Custom of the Country*)

(c) I wanted to save every scrap I could to get a few decent things. And over here they're accustomed to being bargained with – you ought to see how I've beaten them down! (1913, Edith Wharton, *The Custom of the Country*)

The low numbers cannot constitute decisive quantitative evidence, but it is still suggestive that two of the three tokens of the *to -ing* pattern are in the passive voice. They suggest that the perspective of the analysis of semantic roles may be of relevance when the *to -ing* pattern begins to emerge in the grammar of a speaker. It may be added that the third token, *accustomed to hearing*, is similar to the passives in that the semantic role of the understood subject is not agentive. In contrast, in the remaining *to* infinitive construction, the semantic role of the understood subject is more agentive.

To sum up, the present investigation has substantiated the presence of both the *to* infinitive and the *to -ing* patterns in sentential complements of the adjective *accustomed* during the period 1880–1922. It has also been shown that the proportion of *to* infinitival complements is considerably higher than what has been argued to be the case for the nineteenth century as a whole.

This study has also explored the potential impact of a number of factors on the complement selection properties of *accustomed*. The emergence of the *to -ing* pattern should be seen against the background of a larger process of change that has involved the drift of the *to* infinitive to a more and more verbal status. On the other hand, the *to* of the *to -ing* pattern is the preposition *to*, and while complements of the *to -ing* type are sentential, they are at the nominal end of a scale that applies to sentential complements in English. The emergence of *to -ing* complements with *accustomed* was thus promoted by the easy availability of *to* NP complements for the adjective.

There was a process of change in favor of the *to -ing* pattern in progress during the period 1880–1922, but this study also shows how

the Extraction Principle impacts this process of change. Extractions are very common with the adjective *accustomed*, and it is therefore easy to study the impact of the principle. In the literature, it has been proposed that the principle is operative with respect to the extraction of complements. However, it is argued here that it should be broadened to apply to the extraction of adjuncts. In British English, over 60 extractions were observed, and they were all in accordance with the principle. The American English sample was smaller, but the principle was likewise observed, with only one counterexample.

Another explanatory principle examined in this study concerns the semantic role of the lower subject. The starting hypothesis was that the low agentivity of a lower subject might be a factor favoring the emergence and the spread of the *to -ing* pattern. Numbers of relevant tokens are low, but it was suggested that this factor may have played some role in American English. This was suggested by the prevalence of the *to -ing* pattern in structures where the lower clause is in the passive.

While the *to -ing* pattern was spreading during the period 1880–1922 in relation to what had been the case earlier in the nineteenth century, it was still in the minority overall, and all authors who used the *to -ing* pattern also used the *to* infinitive pattern. This is evidence that the two patterns existed in the grammars of these speakers simultaneously for a number of years or even for the lifetimes of the speakers, and that the shift in the grammars of these speakers in favor of the *to -ing* pattern at the expense of the *to* infinitive pattern was not sudden, but gradual.

4 Sentential complements of *accustomed* from the 1930s to the 1950s

4.1 Sentential complements of *accustomed* in the 1930s

For the 1930s, the first decade under investigation, the *TIME* Corpus decade comprises the issues between January 1, 1930, and December 31, 1939, and its size is 12.7 million words. The search string chosen for the present investigation was simply *accustomed*. An alternative would have been to look for *accustomed* in the context of infinitives and *-ing* forms, but it is of some interest to learn the overall frequency of the adjective *accustomed* in the different decades. Using the simple search string also guards against any mistakes in tagging, and it is optimal from the point of view of recall. The search string is also appropriate from the point of view of precision, because the number of tokens retrieved is not excessive.

There were altogether 285 tokens of *accustomed* retrieved by the search string, which represents a frequency of 22.4 per million words. Of the

285 tokens, 117 are relevant to this study in that in them *accustomed* is used as an adjective that selects a sentential complement in a construction that involves subject control. This represents a frequency of 9.2 per million words.

In regard to the more than100 tokens that are not directly relevant to this investigation, there are rather rare tokens of the word *accustomed* where the word is a form of the verb *accustom*. The verb *accustom* is not frequent in the language, but the investigator needs to be aware of such uses. For instance, consider (37): (The date in parentheses indicates the date of publication in the *TIME* Corpus.)

(37) In Marquette, Mich. Polish-born Bishop Joseph Casimir Plagens had by last week accustomed Italian, French, German and Polish Catholics to hearing him orate and converse fluently in their languages. (1936)

There are also uses of the adjective *accustomed* that are not directly relevant to the present investigation. For example, *accustomed* may be found as a premodifier inside an NP, as in (38):

(38) A moment later the House, settling back into something nearer its accustomed docility, passed the bill. (1937)

Premodification structures of the type of (38) are frequent in the material, but they can be set aside in the study of the complementation patterns of adjectives. The adjective *accustomed* may also be found with *to* NP complements, as in (39):

(39) By last week, when they met again, United Fruit's directors were quite accustomed to shocks. (1933)

In (39) the *to* is undoubtedly a preposition, and it is of interest to note the affinity of the *to -ing* pattern to the *to* NP pattern.

With these exclusions made, there are altogether 117 tokens of the adjective accustomed selecting sentential complements involving subject control in the material. Table 6.6 gives information on the frequencies of the two patterns.

During this period, *to* infinitive clauses are still more frequent than *to -ing* clauses as complements of *accustomed*. However, *to -ing* complements are not far behind *to* infinitives in frequency, and the corpus represents a database where both types of complements are fairly frequent.

Table 6.6 Frequencies of *to* infinitive and *to -ing* complements of *accustomed* in the 1930s

	Raw frequency	Normalized frequency (per million words)
to infinitive	67	5.3
to -ing	50	3.9
Total	117	

Given what we know about the earlier and later history of the complements of the adjective *accustomed*, it is possible to say that the 1930s were a time when there was a large amount of variation affecting the sentential complements of *accustomed*.

The sentences in (40a–b) and (41a–b) provide two preliminary illustrations of both types:

(40) (a) In Andalusia businessmen and lawyers are accustomed to take life easily. (1931)
(b) When he ran across an item he wanted, he was accustomed to buy the whole collection containing it. (1935)

(41) (a) Long have New Yorkers been accustomed to seeing each summer begin with some such headline as DITMARS SAILS TO HUNT BUSHMASTER, end with DITMARS BACK; NO BUSHMASTER. (1934)
(b) Hollywood, accustomed to making the manager a dummy figure and further controlling play property. (1937)

At a time of great variation between the two patterns, it is probably impossible to find a factor or a set of factors that might invariably predict the form of the complement in the 1930s. It is nevertheless of interest to probe two factors that may have affected the choice of complement in the case of *accustomed*.

The syntactic factor considered is again the role of extractions. There are altogether 16 sentences involving extractions in the data. Table 6.7 gives information about the two types of complements in extraction contexts. The term "canonical" is used to refer to nonextraction contexts.

In view of the figures in Table 6.7, it seems clear that the Extraction Principle is indeed a relevant factor. When the chi-square test is used, with the Yates correction factor, the chi-square value is 8.43, and the results are significant at the $p < .01$ level ($df = 1$).

Table 6.7 Frequencies of *to* infinitive and *to -ing* complements of *accustomed* in canonical and extraction contexts in the 1930s

	***to* infinitive**		***to -ing***	
	Raw frequency	**Normalized frequency (per million words)**	**Raw frequency**	**Normalized frequency (per million words)**
Canonical	52	4.1	49	3.9
Extraction	15	1.2	1	
Total	67		50	

The solitary token of a *to -ing* complement is given in (42), and in (43a–c) there are three illustrations of *to* infinitive complements:

(42) Dozens of faces of Russians we were accustomed to seeing were missing. (1937)

(43) (a) Such advertisements socialite Japanese matrons have long been accustomed to read in magazines of the highest class. (1930)
(b) The efforts of William Colombe's children to control the follies of an old man whom they have been accustomed to revere and over whom they have no authority is [sic] more tragic than the old man's maundering decline. (1932)
(c) At week's end the gaunt, feverish-eyed dean gave the 15-minute religious talk he has been accustomed to deliver on the radio. (1938)

The figures in Table 6.7 are based on a broad interpretation of extractions, including the extraction of adjuncts. The majority of the extractions involve the extraction of complements, and the illustrations in (43a–c) are all of this type, with (43a) illustrating Topicalization and (43b–c) illustrating Relativization, the latter being the most frequent extraction context in the case of complements.

However, among the 15 tokens of extractions in *to* infinitive contexts, there are also 6 extractions applying to adjuncts. Three of these are provided in (44):

(44) (a) Not alone were bank clearings missing from important indices by which businessmen are accustomed to gauge the state of business. (1933)
(b) Over the tundra of that vast region he was accustomed to make two trips a year by dog-team, carrying the Gospel. (1936)

(c) ...the narrator exhibiting the series of disguises by which he was accustomed to fool hotel detectives. (1938)

Again, Relativization is the most frequently occurring type of extraction context; (44a) and (44c) serve as illustrations. Topicalization is likewise encountered, illustrated by (44b).[3] Overall, extractions appear to be an important factor affecting the choice of sentential complement with *accustomed* in American newspaper English in the 1930s.

The semantic factor concerns the nature of the lower subject. As a point of terminology, the practice adopted here is to designate a subject that involves or encodes a sense of choice as [+Choice] and a subject that involves lack of choice as [–Choice]. The same labels are applied to the predicates that assign the readings in question.

As noted, the hypothesis is that a [+Choice] lower subject tends to go together with a *to* infinitive complement and a [–Choice] lower subject tends to go together with a *to -ing* complement. It is natural to link a [+Choice] lower subject with an agentive semantic role. Such an association is appropriate because choice implies the exercise of volition and a volitional act. It is also appropriate because the concept of "volitional involvement in the event or state" may be viewed as an important feature of what has been termed the "Agent-Proto-Role" (Dowty 1991, 572).[4]

Some illustrations may be cited here to clarify further the nature of an agentive and [+Choice] lower predicate and of a nonagentive and [–Choice] lower subject. Consider (45a–c):

(45) (a) The whole American people is becoming accustomed to eat Italian food. (1930)
(b) King Albert, beloved by his French-speaking subjects, is accustomed to ignore many a Flemish jeer. (1932)
(c) Patriotic audiences, accustomed to stand and sing it [The Soldiers' Song] as the Free State's national anthem, demanded explanations. (1932)

The predicates of the lower clauses in (45a–c) are *eat Italian food*, *ignore many a Flemish jeer*, and *sing it as the Free State's national anthem*. In each case, these predicates encode an event or a situation in such a way that the subjects of the predicates are agentive and [+Choice]. The subjects in question are represented by their predicates as displaying "volitional involvement in the event or state" in question, to hark back to Dowty's concise way of putting it.

There are various linguistic tests that tend to work well with agentive and [+Choice] subjects and their predicates, and these may be viewed as diagnostics. For instance, the admissibility of imperatives is one test that is relevant here. Regarding the nature of an imperative, it is worth quoting a remark by John R. Taylor:

> Prototypically, an imperative instructs a person to do something, and is therefore only acceptable if a person has a choice between carrying out the instruction or not. (2003, 31)

When this test is applied to the lower predicates of (45a–c), it is observed that imperatives are readily conceivable with them, as in *Eat Italian food!*, *Ignore Flemish jeers!*, and *Stand and sing it!*

In contrast, a low degree of agentivity goes together with the Patient or Undergoer role. Consider (46a–b):

(46) (a) The eight directors were not men accustomed to be thus summarily disposed of. (1930)
(b) In London last week correspondents noticed that Comrade Litvinov, once accustomed to being snubbed by Statesman Stimson at Geneva, now hobnobs in friendly fashion with Snubber Stimson's successor, Secretary of State Cordell Hull. (1933)

The predicate of the lower clause of (46a) is *be thus summarily disposed of* and that of (46b) is *being snubbed*. The understood subjects of these clauses represent the objects, prepositional or direct, of the corresponding active predicates *dispose of someone* and *snub someone*, and they have the semantic role of Patient or Undergoer, expressing a low degree of agentivity. They are [–Choice]. When the sentences are in the passive form, as in the lower clauses of (46a–b), the NPs in question retain the same semantic roles and they are [–Choice]. Imperatives are less likely with the predicates in question, as witness ?*Be disposed of!* or ?*Be snubbed!*

Not all lower subjects are as easy to characterize as either [+Choice] or [–Choice] as those in (45a–c) and (46a–b). The notion of agentivity and the [+/–Choice] distinction should be seen as gradient in nature, as indeed pointed out by Hundt (2004) in the case of agentivity. Consider the sentences of (47a–b), (48a–b), and (49a–b):

(47) (a) Last week artful John, a lawyer accustomed to receive the largest fees charged in the Empire, made short work of such whippersnappers. (1932)

(b) Moreover, tourists sailing on nearly-empty steamers in the off season have become accustomed to receiving luxury accommodations for the minimum fare. (1930)

(48) (a) People who are accustomed to think of New York's Bishop William Thomas Manning as an extremely formal, frigidly aristocratic little prelate would have been amazed to behold him last Sunday morning. (1932)

(b) Her fellow countrymen ... are not accustomed to thinking of her as internationally-minded. (1931)

(49) (a) Law-abiding Swedes are accustomed to see their own royal family shop, go to the theatre, drive about town completely unprotected. (1935)

(b) Accustomed to seeing their idols shattered, prizefight reporters concealed their amazement by enthusiasm. (1936)

The lower subjects of (47a–b) have the Benefactive role; those of (48a–b) and (49a–b) are Experiencers. Noun phrases with such semantic roles are sometimes less easily classified as embodying either [+Choice] or [–Choice] interpretations, and when making a decision, it is important to pay attention not only to the verb of the clause but also to the whole predication in question. However, when assessing interpretations, there is an emphasis placed here on the presence or absence of "volitional involvement in the event or state" on the part of the referent of the lower subject. It is therefore still possible to say that the lower subjects of (47a–b) are [–Choice], those of (48a–b) are [+Choice], and those of (49a–b) are again [–Choice]. Imperatives with the senses that the predications of *receive* and *see* have in the contexts of (47a–b) and (49a–b), respectively, are unlikely, as in ?*Receive luxury accommodation!*[5]

The construction *think of somebody/something as somebody/something*, seen in (38a), is glossed as "consider somebody/something in a particular way" in the *Oxford Advanced Learner's Dictionary of Current English* (2005), and it does involve a degree of control and agentivity, as suggested by the manner phrase in the gloss. The subject is therefore considered [+Choice]. Imperatives of the type *Think of something/somebody as something!* are also easily found, as in *If you want to be soft, think of yourself as a rose* (1931), from the *TIME* Corpus.

The illustrations in (46a–b), (47a–b), (48a–b), and (49a–b) show that both *to* infinitive and *to -ing* complements of *accustomed* may be associated with [–Choice] and [+Choice] interpretations of lower subjects. Therefore, there cannot be any absolute rule linking one type of

complement to one type of interpretation. However, if the statement quoted above from Rudanko (2006) is valid, the prediction is that *to* infinitive complements would tend to be linked to [+Choice] interpretations of lower subjects, and *to -ing* complements would tend to go with [–Choice] interpretations of such subjects.

Since extraction was found above to be a significant factor affecting the incidence of *to* infinitives and *to -ing* complements with *accustomed*, it seems appropriate to exclude the 16 tokens exhibiting extraction from the present tallies. Note that the sentences with extraction, except for one token, involve lower subjects that are agentive and [+Choice]; therefore, if they had been included, they would have considerably raised the number of *to* infinitives with [+Choice] subjects.

With the 16 extraction cases excluded from the 117 tokens, there remain 101 tokens. When they are examined from the point of the [+/–Choice] property of the lower subject, the results given in Table 6.8 are obtained.

Table 6.8 Frequencies of *to* infinitive and *to -ing* complements of *accustomed* with [+Choice] and [–Choice] lower predicates in the 1930s, excluding extraction contexts

	***to* infinitive**		***to -ing***	
	Raw frequency	**Normalized frequency (per million words)**	**Raw frequency**	**Normalized frequency (per million words)**
[+Choice]	43	3.4	30	2.4
[–Choice]	9	0.7	19	1.5
Total	52		49	

When the chi-square test is used, with the Yates correction factor, the value is 4.78, and the results are significant at the .05 level of significance ($df = 1$). This is less significant than the impact of extraction but is still worth noting.

There is thus no hard-and-fast rule that can be based on the [+/–Choice] distinction, but there are discernible tendencies for the *to* infinitive complement to be relatively infrequent in nonagentive contexts and for the *to -ing* complement to be disproportionately frequent in such contexts. Such contexts may thus be viewed as a semantic niche that favored the spread of the *to -ing* complement in American news magazine English in the 1930s.

4.2 Sentential complements of *accustomed* in the 1940s

The size of the subcorpus for the 1940s is 15.5 million words. The simple search string *accustomed* retrieves 217 tokens. This represents a frequency of 14.0 per million words for all uses of the word, which shows a decline from 22.4 in the previous decade.

The majority of the 217 tokens are irrelevant, in ways that are similar to irrelevant tokens in the 1930s. The adjective is often found with *to* NP complements, and it is also found in the prenominal position, where the question of its argument structure does not arise. When the irrelevant tokens are set aside, 76 tokens remain. This represents a frequency of 4.9 per million words, which is considerably lower than the corresponding frequency of 9.2 per million words in the previous decade. The frequencies of the two types of complements in the 1940s database are given in Table 6.9.

Table 6.9 Frequencies of *to* infinitive and *to -ing* complements of *accustomed* in the 1940s

	Raw frequency	**Normalized frequency (per million words)**
to infinitive	23	1.5
to -ing	53	3.4
Total	76	

The sentences in (50) include an initial illustration of each complement type:

(50) (a) Norwegian peasants scrape so little from their rocky slopes that Norway is accustomed to import more than half its food supply. (1940)
(b) Accustomed to selling a year's product sight unseen on the strength of a few high-powered productions, extravagant promises, big names, and a barrage of adjectives, it was faced with the vagaries of competitive sales. (1941)

The quantitative findings in Table 6.9, when compared to the findings of Table 6.6, indicate that there has been a dramatic decline in the frequency of *to* infinitives in relation to *to -ing* complements. While *to* infinitives are more frequent than *to -ing* complements in the 1930s, the latter are more than twice as frequent as the former in the 1940s. The change in favor of the *to -ing* pattern has been rapid. Furthermore, 15 of

the 23 *to* infinitives in the 1940s are from the first half of the decade and only 8 are from the second half, which may be indicative of the speed of change in the 1940s.

Turning to the two explanatory principles identified above, it can be observed that there are seven extractions in the data from the 1940s, assuming the broader view of the Extraction Principle presented above. In two of the seven, the complement is of the *to* infinitive type, but in the remaining five, it is of the *to -ing* type. This means that the *to -ing* complement has become so well entrenched that the Extraction Principle no longer adequately explains the choice of complement in extraction contexts. At the same time, the overall proportion of extractions is slightly lower than in the previous decade. The difference is not statistically significant but may still represent a residual effect from the Extraction Principle, in that the *to -ing* complement may still be slightly resistant to extraction.

Below are the two *to* infinitives involving extraction and two of the five *to -ing* forms:

(51) (a) Sin and guilt are not merely words and empty symbols that pastors in pulpits are accustomed to preach. (1946)
(b) The air is blue with insistent voices ... analyzing behavior as "normal" which in the past we were accustomed to associate with the gutter. (1948)

(52) (a) Madrid's enthusiasm was real, not the synthetic show that Madrilenos are accustomed to giving for Franco. (1947)
(b) This was not the kind of advice they were accustomed to hearing from anyone, let alone a Republican governor. (1948)

In (51a–b) and (52a–b), the extracted constituent is a complement in each case, but there are also two extractions of adjuncts. Both of these have a *to -ing* complement. Sentence (53) is an illustration:

(53) This means they want as much of their meat as possible in tins, which is not the way the U.S. is accustomed to packing it. (1941)

Overall, while extractions are no longer a significant factor favoring *to* infinitives, their nature and their frequency may still serve as indicators of the degree of entrenchment of the *to -ing* pattern.

The semantic principle is that while no categorical rule can be established linking *to* infinitives and *to -ing* complements to [+Choice] and [–Choice] lower predicates, there is a significant tendency in the earlier

data for [+Choice] lower subjects to go with *to* infinitive complements and for [–Choice] lower subjects to go with *to -ing* complements. In the present material, there is again no hard-and-fast rule, and each type of complement can be found in each type of context. The examples below provide an illustration of each type:

(54) (a) James Caesar Petrillo, tough, grey little boss of the powerful, closed shop American Federation of Musicians, has long been accustomed to tell employers what's what. (1941) (*to* infinitive, [+Choice])
(b) The world that heard these words had not expected, nor was it accustomed to hear such language, such human hopes, invoked by its leaders, and at such a time. (1943) (*to* infinitive, [–Choice])
(c) The almost tax-exempt lower-income groups who are the new rich of the war effort are not accustomed to putting their money into life insurance. (1942) (*to -ing*, [+Choice])
(d) So Mme. Tabouis wrote an angry letter telling Blum that she "was not accustomed to being caressed and beaten by the same hand, and didn't want to decorated." (1948) (*to -ing*, [-Choice])

Table 6.10 gives information about frequencies of the two types of complement in [+Choice] and in [–Choice] contexts.

Table 6.10 Frequencies of *to* infinitive and *to -ing* complements of *accustomed* with [+Choice] and [–Choice] lower predicates in the 1940s, excluding extraction contexts

	***to* infinitive**		***to -ing***	
	Raw frequency	**Normalized frequency (per million words)**	**Raw frequency**	**Normalized frequency (per million words)**
[+Choice]	19	1.2	39	2.5
[–Choice]	2	0.1	9	0.6
Total	21		48	

The figures in Table 6.10 are calculated on the same basis as in Section 4.1.[6] It is clear from Table 6.10 that the proportion of [+Choice] lower predicates has increased overall, and while the *to -ing* complement still predominates in its niche of [–Choice] lower predicates, the *to -ing* pattern now also clearly dominates with [+Choice] lower predicates,

which, as seen in Table 6.8, is the stronghold of *to* infinitives in the 1930s. Indeed, it is with this latter type of lower predicate that a spectacular change has occurred in favor of the *to -ing* pattern.

Overall, the present section points to the decade of the 1940s as a period of rapid change in the argument structure properties of the adjective *accustomed* in the text type of American news magazine English. The 1940s was a time of great turbulence and increasing transatlantic contacts because of America's entry into World War II and its postwar role in the world. The period of World War II has been featured in work on phonological change in American English (Labov 1966, 354–355), and the present study links the 1940s to rapid grammatical change affecting the argument structure properties of the adjective *accustomed*, inviting further research into grammatical change in American English during this period.

4.3 Sentential complements of *accustomed* in the 1950s

In the 1950s, the adjective *accustomed* continues to be relatively frequent in the language of this corpus. The same simple search string, *accustomed*, yielded 226 tokens for the 1950s subcorpus. This subcorpus is 16.8 million words in size, and the normalized frequency of the word, compared with the 1940s, has gone down very slightly, to 13.5 per million. The majority of the tokens are irrelevant, for reasons similar to those discussed above for the 1930s. Of the 226 tokens, 78 relevant tokens were found. This raw frequency means that the normalized frequency of *accustomed* in the relevant pattern has gone down slightly from the 1940s, to 4.6 per million words.

The incidence of the two types of complement is given in Table 6.11.

Table 6.11 Frequencies of *to* infinitive and *to -ing* complements of *accustomed* in the 1950s

	Raw frequency	Normalized frequency (per million words)
to infinitive	7	0.4
to -ing	71	4.2
Total	78	

As presented in Table 6.11, the proportion of *to* infinitives in relation to *to -ing* complements has declined further from the 1940s, and the former are now only a fraction of the total of sentential complements

involving subject control. Examples (55a–b) and (56a–b) include two illustrations of each:

(55) (a) He was accustomed to amuse his soldiers by crumbling stones in his hand. (1951)
(b) We have long been accustomed to think of the U.S. as occupying an unchallenged and unchallengeable position. (1958)

(56) (a) Murphy, whose derby and old time bartender's mustache give him a look of a man long accustomed to surmounting evil. (1951)
(b) In subways, on buses and commuting trains, straphangers accustomed to hiding behind the pages of newspapers peered uncomfortably across the aisles. (1953)

The preponderance of the *to -ing* pattern is almost total, but it is still of interest to examine the two factors identified above as having had an impact on variation in the first decade of the corpus. Two of the seven *to* infinitives display extraction:

(57) (a) In their notebooks, which police found when they broke the Soviet spy ring in Canada in 1946, Soviet espionage agents were accustomed to make a brisk notation in Russian after the names of the traitorous scientists who furnished them information. (1950)
(b) His sarong-clad countrymen offered him hibiscus blossoms and accorded him the full-length prostrate kowtow he had been accustomed to receive before. (1957)

Among the 71 tokens of *to -ing* complements, there are only three sentences involving extraction:

(58) (a) "Someone had played a dirty trick" by building a fire in a normally cold kitchen wood range on which she was accustomed to sitting. (1954)
(b) A gleaming new car instead of the rattletraps they're accustomed to seeing. (1954)
(c) The effect of these and other changes was to make Russian Swan Lake a looser, more romantic interpretation than Western observers are accustomed to seeing. (1959)

The low number of extractions overall in the 1950s makes it difficult to draw any strong conclusion. However, it is still suggestive, given the

huge preponderance of *to -ing* complements over *to* infinitives overall, that of the five tokens of extraction, two have the complement in the *to* infinitive form and only three in the *to -ing* form. No statistical claim can be based on such low numbers, but they may indicate some residual influence of the Extraction Principle. Furthermore, while extractions can be found out of *to -ing* complements, there may still be some hesitation about using such extractions. This is suggested by the relatively low proportion of extractions among the 71 *to -ing* complements compared to the proportion of extractions with *to* infinitives in the 1930s. However, this is only suggestive and invites further work if and when larger corpora of the text type from the 1950s become available.

As for the semantic factor associating the *to* -infinitive pattern with the encoding of a sense of choice and the *to -ing* pattern with lack of choice on the part of the referent of the lower subject, the numbers of *to* infinitives are too low for any definitive conclusions. However, all of them, with the single exception of one of the two tokens involving extraction, given as (57b), display a [+Choice] subject.

Of more interest is the interpretation of the 71 *to -ing* complements. Of them, 68 are in canonical contexts.[7] Seventeen have [–Choice] readings, showing that the *to -ing* pattern has preserved its dominance in its original semantic niche. However, there are 51 complements with [+Choice] lower subjects. This compares with 5 *to* infinitives with [+Choice] subjects (in canonical contexts). In other words, the huge majority of [+Choice] cases are now of the *to -ing* type.

The sentences in (59) contain two illustrations of each type of *to -ing* complement:

(59) (a) (The giveaway clue: he was obviously accustomed to wearing clothes since his arms and face were tanned, but his body was white.) (1954)
(b) The 50 members of the cast, most of them accustomed to doing comic opera before half-filled houses, go home gaily. (1956)
(c) Winthrop W. Aldrich is not accustomed to having anyone tell him how to run his business. (1950)
(d) Accustomed to receiving their magazines on the same day as many U.S. readers, they are just as quick to let us know when they don't. (1956)

The semantic principle identified above as applying to usage in the 1930s in the *TIME* Corpus seems to have lost its power to favor *to*

infinitives. Instead, the *to -ing* pattern now clearly predominates with both [–Choice] and [+Choice] lower subjects. Overall, the dominance of the *to -ing* pattern is nearly total in the material from the 1950s, and the tokens of the *to* infinitive are remnants of a pattern that has largely been lost with *accustomed* in this text type of American English.

5 Sentential complements of *accustomed* in present-day British and American English

When we turn to current usage and examine the British and American segments of newspaper English and of spoken English in the Bank of English Corpus, we cannot but be struck by a dramatic increase in the proportion of *to -ing* complements in relation to *to* infinitive complements. The increase is dramatic in relation to Poutsma's comment, from the 1930s, which was based on the genres of newspaper English and of fiction. It is also spectacular when we recall the *OED* treatment of the sentential complements of the adjective. That treatment, under the sense "to be habituated, to be in the habit, to be wont or used" (under sense 3.d of the verb *accustom*) is likewise based on data from different genres, and, as noted in Section 1, as far as sentential complements of the adjective are concerned, the *OED* treatment is limited to illustrations of the existence of *to* infinitive complements, without making any mention, or giving any illustrations, of *to -ing* complements.

Starting with the London *Times* subcorpus, the material, of some 60 million words, contains 332 instances of the combination *accustomed to*, that is, approximately 5.53 per million words. Among these, there are 123 sentential complements of the adjective, that is, approximately 2.05 per million words. Table 6.12 gives the breakdown.

Table 6.12 The form of sentential complements of *accustomed* in the *Times* Corpus

Complement	Frequency
to infinitive	7
to -ing	116

Here are some examples of each type:

(60) (a) They are mostly people accustomed to respect law and authority.

(b) We have grown accustomed to expect the full works when it comes to facial treatments ...
(c) Dagenham's new profile has meant that [a name] has even had to become accustomed to being recognised and stopped in the streets of Romford, ...
(d) Americans, accustomed to saying what they mean and, ...

The proposal, made above, that the *to* infinitive may be associated with a sense of choice on the part of the referent of the matrix subject goes well with the *to* infinitives of the type of (60a), and (60c) is a good example of lack of choice in the case of the *to -ing* pattern. However, the predominance of the *to -ing* pattern over the *to* infinitive pattern is so overwhelming in the *Times* Corpus that an account based on semantic differentiation does not seem plausible today.

At the same time, the seven tokens of *to* infinitival complements afford an opportunity to examine the potential influence of extraction as a factor "protecting" *to* infinitives. It turns out that four of them involve extraction. Here are two of those:

(61) (a) 1882: "The Nepalese name for this species, Homrai, is derived from the note it is accustomed to utter."
(b) The fact that we were outclassed on this occasion, not only by the entries that beat us, but by most of the continental nations whom we are accustomed to ridicule for fielding some fat bloke with a zither to represent them, should distress us not at all.

The presence of extraction in (61a–b) raises the question of whether examples are found of *to -ing* complements in sentences involving extraction. Seven such examples are found. Here are four of these:

(62) (a) The yellow green work is called Another Country, suggesting a world unaccountably removed from the territory Deacon has been accustomed to exploring.
(b) True, there are no budget tickets that offer the savings Ryanair or Easyjet travelers are accustomed to getting.
(c) There are no budget tickets that offer the savings Ryanair or Easyjet travellers are accustomed to getting.
(d) Not, alas, in one of the celebrity glossies that they are more accustomed to posing for – the snap in question appeared in the pages of the publishing trade mag The Bookseller, ...

There are thus 11 instances of extraction in the material and in 4 of these, the complement is of the *to* infinitive type. This evidence, taken together with the overall numbers of the two types of complements, as given in Table 6.12, suggests that extraction is a factor favoring or "protecting" *to* infinitive complements in present-day British English, at least in the genre of newspaper language. However, at the same time, the evidence also indicates that *to -ing* complements are not impossible with extraction. Overall, the *to -ing* pattern overwhelmingly predominates over the *to* infinitive pattern.

With respect to the extraction evidence, it is also of interest to note that, overall, extraction is observed in approximately 10 percent of the total number of the sentential complements of *accustomed*.

In the Spoken British English Corpus, which is some 36 million words in size, a search based on *accustomed to* produces 77 hits, that is, about 2.14 per million words. In the majority of them, the complement of the preposition is a NP, but there are 24 sentential complements, that is, 0.67 per million words. The breakdown of these is given in Table 6.13.

Table 6.13 The form of sentential complements of *accustomed*, spoken British English

Complement	**Frequency**
to infinitive	2
to -ing	22

Here are both of the *to* infinitive examples, and two of the *to -ing* examples:

(63) (a) ... as a writer of plays I am accustomed to superintend their rehearsals ...
(b) ... the Russian nationalist backlash against the gradual break-up of a Union they have been accustomed to dominate.

(64) (a) I think they've been accustomed to doing reports written reports.
(b) We're not accustomed to being together with them.

Example (63b) involves extraction, which may again be a factor "protecting" the *to* infinitive. As for the presence of extraction in the instances

with *to -ing* complements in the corpus of spoken British English, the number of instances is low, but two are found:

(65) (a) ... other people might feel that they no longer have the hold over you that they have become accustomed to having.
(b) Other people may feel er that er they no longer have the influence over you that they are accustomed to having.

Extraction is thus again not powerful enough always to protect *to* infinitive complements, but it may still play some role.

For American English data, starting with the United States News segment of the Bank of English corpus, there are 217 examples of the combination *accustomed to* in that corpus, that is, about 5.71 per million words. The majority of these involve NP complements, but there are 92 instances of sentential complements, that is, about 2.42 per million words. The breakdown of the two types is given in Table 6.14.

Table 6.14 The form of sentential complements of *accustomed*, United States News Corpus

Complement	**Frequency**
to infinitive	2
to -ing	90

The two instances of *to* infinitive complements are given in (66a–b), and an example of a *to -ing* complement is given in (67):

(66) (a) In a campaign speech at Edwardsville, Ill., he warned: "Accustomed to trample on the rights of those around you, you have lost the genius of your own independence, and become the fit subjects of the first cunning tyrant who rises."
(b) Used to the minimal on his own small screen documentaries, wild-lifer Steve Irwin who pitched his own tent says: "I'm accustomed to film 5:00 a.m. 'til midnight, seven days a week, in remote jungles."
(67) Ad agencies were accustomed to buying media space themselves, ...

The United States News Corpus indicates that there is an overwhelming preponderance of *to -ing* complements over *to* infinitive complements in present-day American English. What is more interesting, in

the light of the role that extraction was observed to play as a factor favoring *to* infinitives in the British English data, is that neither (66a) nor (66b) involves extraction.

The absence of extraction in (66a–b) makes it all the more important to examine the presence or absence of extraction in the 90 instances of *to -ing* complements. It turns out that nine of them involve extraction. The proportion of extractions in the total of sentential complements of the adjective is thus 10 percent, which is remarkably similar to the corresponding percentage of extractions in the London *Times* material. Here are four examples:

(68) (a) But the surplus revenues the city had grown so accustomed to enjoying have evaporated.
(b) Considering Van Horn usually logs 47 minutes a contest, Wednesday was something he isn't accustomed to seeing.
(c) "We have a nucleus of young talent here, and we will be bringing in more young talent in this year's draft. We will work very, very hard to get it back to where we are accustomed to seeing it. I certainly welcome this challenge."
(d) ... the fact that Dr. [a name], whom Texans are more accustomed to approaching for advice on nose bleeds than nuclear deterrence, is running so well is encouraging to Republicans, ...

Extracted constituents tend to be direct objects, as they were in American English examples from the nineteenth century and in the spoken British English data. (In example (62d), from the *Times*, the extracted constituent is the object of a preposition.) However, example (68c) shows that the extracted element may be an adjunct, in accordance with the broader definition provided above.

The absence of extraction in the examples of *to* infinitive complements and the ease with which extraction is found to occur with *to -ing* complements are of significance when taken together. Given that there are nine instances of extraction in the material and that all of them are of the *to -ing* type, it is possible to conclude that in American newspaper English, extraction has lost much or all of its potency as a factor favoring *to* infinitives over *to -ing* complements with this adjective. This is contrary to the data from British English surveyed above, and it seems possible to say that in the genre of newspaper language, American English is ahead of British English with respect to the consolidation of the *to -ing* pattern with *accustomed*.

This finding does not mean that occasional examples of *to* infinitive complements cannot be found in American English. As with many other recent linguistic changes, such remnants do occasionally occur. Sometimes such remnants can be explained because of associations with historical contexts, as in (66a), where the quotation appears to be from President Lincoln.

For present-day spoken American English, the relevant segment in the Bank of English Corpus, of some 29 million words, may serve as the database. The size of the American English spoken material is somewhat smaller than that of the corresponding British English corpus, but with 179 instances, which is about 6.17 per million words, *accustomed to* is considerably more frequent in it. Most complements of the adjective are again NPs, but there are 77 sentential complements, that is, about 2.66 per million words. The frequency is again higher than in the corresponding British English corpus. Their breakdown is given in Table 6.15.

Table 6.15 The form of sentential complements of *accustomed*, spoken American English

Complement	**Frequency**
to infinitive	4
to -ing	73

There is thus again a huge preponderance of *to -ing* complements, but here are the four *to* infinitive complements:

(69) (a) ... the temptation to rev up the arms race with high-tech weapons is especially dangerous in a region not only torn in two, but into many pieces ... Americans are accustomed to think of it as Arab-Israeli, but realistically, it's not the Arabs and the Is – Israelis who are arming.

(b) ... was of great benefit to American workers because it increased the stock of capital with which they worked, and increased their productive, and helped to increase their wages. So, we are accustomed to think that there's something bad about anything that's called a deficit, ...

(c) They know it, but they aren't accustomed to take care of themselves. They are used to – that the government is doing everything.

(d) And we shouldn't say they are a national security problem or certainly not a threat, but we should aid them. We have become so accustomed to think that we can only deal with something if it is a conflict or if it is a security problem or if ...

Features of some of these examples raise the possibility that they might have been uttered by non-native speakers and would therefore be of less interest in a study focused on the two major native varieties of English. Setting this issue aside as a question that cannot be resolved here, it may be observed that three of the four examples involve the string *accustomed to think*, suggesting that a collocational factor, perhaps aided by the often stative nature of *think*, might play some role in protecting a *to* infinitive complement in current spoken American English.

As for extraction, it is not found in any of the four examples. The absence of extraction in examples (69a–d) cannot alone of course be used as decisive evidence that there may have been a diminution in the possible role of extraction as a factor favoring selection of *to* infinitive over *to -ing* complements with *accustomed*. However, it makes it all the more important to examine whether extraction is found in examples with *to -ing* complements. It does indeed turn out to be the case that among the 73 examples, there are 7 *to -ing* complements involving extraction, which is again not far short of 10 percent. Here is a sample:

(70) (a) Don Oberdorfer, can the United States become accustomed to dealing with a whole host of – of political figures in the Soviet Union, rather than the one or two that the US is accustomed to dealing with?
(b) There are trees that are either blown down with branches off or they've just had the leaves sucked right off of them by the wind, and things are much browner here than people are accustomed to seeing.
(c) But many of the league's top stars are absent for a variety of reasons, and the style of play is different from what fans in the basketball-crazy state of Indiana are accustomed to watching.
(d) The Group Theater's productions defined the naturalistic style of acting we're accustomed to seeing on stage, screen, and television.

When the evidence of the absence of extraction with the *to* infinitive complements is considered in conjunction with the presence of

extraction in so many instances of *to -ing* complements, it is again possible to conclude that with this adjective, extraction has ceased to exert a noticeable role in favor of a *to* infinitive complement over a *to -ing* complement in present-day spoken American English.

Two other examples of *to -ing* complements in the American English sample are also worth citing here:

(71) (a) We – we've grown accustomed, for example, to, in negotiating with the Japanese, to being upset about some issue and making demands and have the Japanese accede to our demands.
(b) Everything seems to fall apart. You f – you feel like you've – you've been accustomed for so long to putting your energy into your job, and then all of a sudden you've got this other job that's sort of sitting at home waiting for you.

The examples in (71a–b) are of interest because in them there is intervening material between the matrix adjective and the head of the construction that selects a sentential complement. Such intervening material has tended to favor the selection of *to* infinitive complements in preference to *-ing* complements in a number of cases studied in the literature (see Rudanko, 2000 125 f.; Vosberg 2003b, 210 f.). However, in (71a–b) the complements are of the *to -ing* form. At the same time, the repetition of the preposition in the first example is worth noting, indicating that an *-ing* complement may not be readily combined with a preceding *to* across some intervening material. The presence of the infinitival form *have* in the same example should also be pointed out.

6 Summary and concluding observations

This chapter has traced a change in the complement selection properties of the adjective *accustomed*. The general outline of the change, discussed in earlier work, concerns the increasing proportion of *to -ing* complements in relation to *to* infinitive complements, but the present study fleshed out some important aspects of this general picture.

In the eighteenth century, *accustomed* frequently selected sentential complements, and among them *to* infinitives reigned supreme. In the nineteenth century, *to* infinitive complements likewise continued to be predominant. However, with the help of large nineteenth-century corpora of British and American English, it was possible to identify a number of *to -ing* complements in that century.

The period 1880–1920, it was suggested, is of great interest from the point of view of the change affecting the complement selection properties of *accustomed*. *To* infinitive complements continued to be more frequent than *to -ing* complements, but tokens of the latter were now also found in sufficient quantities, both in British and in American English, to warrant the claim that the latter pattern had become a serious competitor of the former.

It is also easy to point to the occurrence of both forms in one and the same text during the period 1880–1920. Furthermore, it is hard to identify a diglossic difference between the two types when found in one and the same text, and this suggests that not only is diglossic competition between two contradictory options within a grammar liable to lead to grammatical change, but so is non-diglossic variation.

A study of the *TIME* Corpus shows that the 1930s was clearly a decade of considerable variation between the two patterns of sentential complementation, with the *to -ing* pattern having emerged as a serious competitor of the once-predominant *to* infinitive pattern. This investigation focused on two factors that may be viewed as explanatory principles bearing on the variation, either delaying or promoting the further spread of the emerging *to -ing* pattern. The first is the Extraction Principle. The definition adopted encompasses the extraction of complements and of adjuncts, and the principle does indeed play a significant role in the variation between the two types of complements in the *TIME* material from the 1930s, in that in such contexts *to* infinitives are favored as predicted by the principle.

The other explanatory principle is semantic. A distinction is made between [+/–Choice] contexts, depending on the way in which the situation is encoded by the lower clause selected by the adjective *accustomed*. The question investigated was whether it is possible to associate each of the two types of complement with a particular type of lower subject and encoded context, either [+Choice] or [–Choice]. No categorical association can be established, but *to -ing* complements are linked to [–Choice] contexts, whereas *to* infinitives tend to go with [+Choice] contexts.

The two explanatory principles show that what might have appeared to be free variation between the two types of sentential complement is to some extent rule-governed variation in the 1930s. In subsequent decades, the investigation reveals a radical change in the argument structure of *accustomed*. *To* infinitives are more frequent than *to -ing* complements in the 1930s, but in the 1940s *to -ing* complements become more frequent than *to* infinitives, by a ratio of more that two to one, and in the 1950s

the ratio is about ten to one in favor of the *to -ing* pattern. The change in the ratios does not mean that *to -ing* complements have become significantly more frequent than in the 1930s in absolute terms; on the contrary, the normalized frequencies of the *to -ing* pattern fluctuate within a fairly narrow range during this period, from 3.9 per million words in the 1930s, to 3.4 in the 1940s, to 4.0 in the 1950s. Instead, the dramatic change in the ratios of the two types of complement has more to do with the decline of the *to* infinitive pattern with the adjective, for the normalized frequency of the pattern decreases from 5.3 per million words in the 1930s, to 1.5 in the 1940s, and to only 0.4 in the 1950s.

While the overall numbers of *to -ing* complements do not increase much, if at all, during the three decades under consideration, such complements seem to appear in extraction contexts in the 1940s and 1950s somewhat more freely than in the 1930s, though perhaps not quite as freely as *to* infinitives in such contexts in the 1930s. *To -ing* complements are also readily used in [+Choice] contexts in the material from the 1940s and 1950s, which further testifies to their entrenchment.

With respect to present-day English, it can be said on the basis of the present investigation that as far as the sentential complements of *accustomed* in the genre of newspaper English and in the spoken medium are concerned, there is a robust preference for *to -ing* complements over *to* infinitive complements in both British and American English today. In view of the robust preference, it is hardly plausible to appeal to semantic differentiation to separate the patterns today.

The change in the complementation selection properties of the adjective is part of the larger system of changes affecting the complementation system of English, termed the Great Complement Shift (Rohdenburg, 2004). The shift involves a number of changes, and the spread of *to -ing* complements at the expense of *to* infinitives is a prominent part of it.[8] The change should be seen against the background of the different functional roles of *to* infinitival and *to -ing* complements in current English. The former are verbal in nature, with *to*, an INFL in this case, followed by a VP, and the latter are more nominal, with *to*, a preposition in this case, followed by a nominal clause. It was seen in the diachronic material how the emergence of *to -ing* complements may have been promoted by dynamic matrix verbs occurring with *accustomed*. Such dynamic verbs include *become* and *grow*, and their dynamic meaning goes well with the prototypical meaning of the preposition *to*, which entails movement toward a goal.

With respect to factors slowing down the process of change in favor of *to -ing* constructions with *accustomed*, extraction is a recurring theme.

One difficulty in assessing the potential impact of this factor is the question of how many extractions to expect in a corpus. Three of the four corpora of present-day English yielded a relatively large number of sentential complements of *accustomed*, and this made it possible to derive an approximate "default" expectation of the percentage of extractions in relation to the total number of sentential complements of the adjective. The percentage turned out to be remarkably similar, at roughly 10 percent, in all these corpora. For what it is worth, even in the corpus of spoken British English, where the numbers of sentential complements are much lower, the number of extractions was about 10 percent of the total.

When the complement selection properties of the adjective were considered in relation to extraction, there turned out to be a divergence between the two regional varieties. It is possible to say that in American newspaper English and in spoken American English, extraction is readily possible out of *to -ing* complements of *accustomed* and there is little or no scope for thinking that the extraction of an element out of the sentential complement of the adjective plays a noticeable role in favor of *to* infinitive complements today.

The finding that extraction is readily possible out of *to -ing* complements in the genre of newspapers and in the spoken medium in present-day American English is also of broader interest. It is beyond question that *to -ing* complements are more NP-like and less sentential than *to* infinitive complements in their grammatical properties; however, the finding concerning extraction possibilities argues against any rigid ban on extraction out of *to -ing* complements. Instead, the present discussion of *accustomed* suggests a more nuanced and a more relativized approach and emphasizes the importance of the role of the matrix predicate in the consideration of the impact of extraction on complement selection.

As for British English, there is more scope for saying that extraction still plays a noteworthy role favoring *to* infinitive complements over *to -ing* complements. This conclusion is mainly based on the evidence from the *Times* Corpus. To some extent, it seems possible to speak of a colonial lead in the case of *accustomed*.

Overall, the change affecting the complement selection properties of *accustomed* may be summed as follows, in what might well prove to be an S-curve:

> Stage 1: Sentential complements are invariably or almost invariably of the *to* infinitive form.
> Stage 2: *To -ing* complements begin to emerge. *To* infinitives are still much more frequent than *to -ing* complements.

Stage 3: *To -ing* complements are becoming more frequent in relation to *to* infinitives. There may be a semantic difference between the two types of complement.
Stage 4: *To -ing* complements advance further and *to* infinitives become more and more rare, except where protected by extraction.
Stage 5: *To -ing* complements become readily compatible with extraction, and *to* infinitives become rare even in such environments.

The present study raises the question of whether other adjectives in English selecting sentential complements involving subject control may have followed a similar trajectory of change in recent English and whether the explanatory principles employed here can be applied in their cases as well. Some preliminary discussion of several adjectives that are potentially relevant in this context is provided in Rudanko (1999, 7–22), including, for instance, the adjectives *committed* and *prone*, which allow considerable variation between *to* infinitive and *to -ing* complements in current English. Questions to be explored in further work include whether the semantic principle formulated here on the basis of *accustomed* for interpreting *to* infinitives and *to -ing* complements might be extended to other matrix predicates that have gone through or entered a period of transition.

An additional question raised by the present study is whether a period of rapid change might have coincided with the war years for other adjectives beside *accustomed* and, more generally, whether other grammatical changes might have been taking place at an accelerated pace during the rise in transatlantic contacts of the war years.

Naturally, it will also be of great interest to watch any later developments involving the complement selection properties of *accustomed*, including those affecting the role of extraction in British English in comparison with American English, as they may be observed on the basis of later large-scale corpora of the two major regional varieties of English.

7

On Sentential Complements of *Object*, with Evidence from the Old Bailey Corpus

1 Introduction

Chapter 6 examined variation and change affecting the sentential complements of the adjective *accustomed*, and the complements in question were *to* infinitives and *to -ing* complements. This chapter examines the fairly recent history of a verb that is of interest from a similar point of view. The verb in question is *object*. This section sets the scene by drawing attention to the grammar of these types of complement. The discussion here is parallel to that at the beginning of Chapter 6, but it deserves to be pointed out that the distinction between the two types of sentential complement can be established not only with adjectival heads but also with verbal heads.

To introduce the two types of sentential complement independently of *object*, consider the sentences of (1a–b):

(1) (a) John sought to borrow money.
(b) John resorted to borrowing money.

Sentence (1a) has a *to* infinitive complement, and sentence (1b) has a *to -ing* complement. In the latter, the *-ing* form is a gerund.

Even though both (1a) and (1b) contain sentential complements and PRO subjects, there are important differences between them. For instance, only in the case of (1a) is the substring that follows the word *to* subject to elision:

(2) (a) John sought to borrow money but his friend did not seek to.

(b) *John resorted to borrowing money but his friend did not resort to.

Elision structures of the type of (2a) were quite rare in the language up to the middle of the nineteenth century, but from about that time "what had been a trickle soon turned into a flood," as Denison (1998, 201) puts it.

Second, while it is possible in (2b) to replace the substring that follows the word *to* with a pronoun of the type of *what* or *that*, this is not possible in the case of (2a):

(3) (a) *John sought to borrow money, but his friend did not seek to that./*Q. What did John seek to? A. Borrow money.
(b) John resorted to borrowing money, but his friend did not resort to that./Q. What did John resort to? A. Borrowing money.

To account for such contrasts, it is possible to appeal to the traditional insight that there are two types of *to* in English: as regards the *to* of (1a), it is an element under the Aux node. The term infinitival marker may be applied to it, but the term is not ideal because it may misleadingly suggest that the element lacks a meaning. As for the *to* of (1b), it is a preposition and the head of a prepositional phrase. This *to* is then followed by a nominal clause, to use a term from traditional grammar, that is, a sentence dominated by a NP. The structures of (1a) and (1b) may then be represented as in (1a′) and (1b′):

(1) (a′) $[[\text{John}]_{NP}$ sought $[[\text{PRO}]_{NP}$ $[[\text{to}]_{Aux}$ borrow money$]_{VP}]_{S2}]_{S1}$
(b′) $[[\text{John}]_{NP}$ resorted $[[\text{to}]_{P}$ $[[[\text{PRO}]_{NP}$ [borrowing money$]_{VP}]_{S2}]_{NP}]_{PP}]_{S1}$

The admissibility of (2a) is then accounted for as a case of VP Deletion or its interpretive analogue, while (2b) is bad because what follows the word *to* in (1b′) is not a VP. On the other hand, *what* and *that* are pro-forms of NPs, and a pro-form for a NP is good in the case of (3b) because what follows the word *to* is a NP in (1b′).

There is thus a robust grammatical difference between the two types of complements in (1a) and (1b). However, despite the difference, some predicates – verbs, adjectives, and nouns – have been subject to variation and change involving the two types of complement in recent English. The change in question forms an important aspect of what has been termed the Great Complement Shift. It is the purpose of this study to examine one predicate of this type, the verb

object, which has undergone a radical change in its argument structure in recent times.

At this point, it may be worth repeating the point, of a methodological nature, made by Leech et al. (2009) in a discussion of abstractness and generality in work on complementation and on nonfinite complements in particular, where they identify two different approaches in this way:

> If we decide to focus on a specific non-finite complement structure – such as, say, the *to*-infinitival clause or the gerund with possessive/genitive modifier – we will find these structures serving a large variety of functions, with most of them not being involved in current diachronic change. If, on the other hand, we decide to focus on more specific constructions – combinations of particular superordinate predicates and particular patterns of complementation (such as, for example, variation between infinitives and gerunds with *accustomed to*) – we can easily home in on areas of ongoing diachronic change, without, however, being able to correlate individual shifts in usage preferences with general trends in the evolution of the system of English non-finite verbal forms. (Leech et al. 2009, 181)[1]

The present study focuses on a specific construction and changes affecting it in recent English in the general context of the Great Complement Shift, and also aims to identify principles that can be applied more generally to explain variation and change in the system of English predicate complementation. These principles are subject to further refinement, and indeed to refutation, but it is hoped that they may have broader interest when other predicates selecting *to* infinitive and prepositional gerunds in recent centuries are studied on the basis of large corpora.

The relevant sense of the verb is given as follows in the *OED Online*:

> **b.** *intr.* Now usu. with *to*; formerly also with *against*. To bring forward a reason against something (or someone); to state and maintain disagreement or disapproval. In later use: to express disapproval, opposition, or reluctance; to have an objection to or disapprove of something (or someone). Also in extended use.

The Old Bailey Corpus is used as the main source of data for this investigation. It offers a database immeasurably larger than what had been used in the study of the argument structure of the verb in recent

English before. The corpus represents spoken English or what is as close to the representation of spoken English as an investigator can hope to come. Most work on complementation in recent English has been based on written English, and the element of spoken English is therefore another welcome feature of the corpus.

2 Data and their analysis

As far as sentential complements of the matrix verb *object* involving subject control in present-day English are concerned, *to -ing* complements are strongly preferred over *to* infinitives. It is easy enough to find *to -ing* complements for instance in COCA, whereas the invented *to* infinitive variant of (4b) would be starred:

(4) (a) He objected to paying rent.
(b) *He objected to pay rent.

However, it was pointed out in Rudanko (1998a, 1998b) that as recently as a little more than a century ago, *to* infinitives were found with *object* and some other verbs that prefer *to -ing* complements today. For his part, Denison (1998) also discussed the grammatical change involving the replacement of *to* infinitive complements with *to -ing* complements with a number of verbs in recent English, and drew attention to *to* infinitives with the verb in the nineteenth century, for instance in George Eliot, as in *Celia objected to go* (1871–1872, Eliot, *Middlemarch,* from Denison 1998, 266). Illustrating the *to* infinitive, the *OED Online* cites the same sentence from George Eliot as Denison, along with tokens from Charles Dickens and Anthony Trollope, among others, and provides another token from even later: *I was not? next on the programme? when I objected to go on*. (1904, *Dublin Evening Mail*). According to the *OED Online*, the *to* infinitive is "now *rare*" with *object*. For his part, Poutsma (in his unpublished Dictionary) provides illustrations of both complements. The dates of the illustrations are missing, unfortunately, but his overall comment is worth quoting: "Usage may be equally divided between the construction with *to* + gerund and that with *to* + infinitive." The Dictionary remains undated, but to judge by references to historical events in some illustrations in the Dictionary, it appears that he worked on it during the 1930s. The comment quoted from the Dictionary is similar to what he says in the second edition of his grammar from 1929 (Poutsma 1929, 924).

Rudanko (1998a) and (1998b) were based on small or smallish corpora of nineteenth-century English. Now that the much larger Old Bailey Corpus

has become available, it has become possible to take another look at the complementation patterns of the verb in a more systematic way. Since the new corpus is so much larger than earlier corpora of the period, it may also be possible to examine explanatory principles that may account for the variation and change that is observed in the case of *object*.

The Old Bailey Corpus runs from 1674 to 1913, and its size is 134 million words. In view of earlier illustrations of the two patterns in the literature, and bearing in mind that in present-day English there is a marked preference for the *to -ing* complement as compared with *to* infinitives, it is of interest to examine two segments of the corpus here, one segment from the early part of the nineteenth century and another segment that starts from the later part of the nineteenth century, in order to shed light on the emergence of current usage. After some trial searches, the 1820s and the 1830s were selected as the early segment and the last four decades of the corpus, from January 1, 1880 to 1913, were chosen as the late segment for this study, as being the most likely to shed light on variation between the two variants and on principles explaining such variation.

The search strings used were "object to," "objected to," "objects to," and "objecting to." Absolutely total recall cannot be guaranteed with the search strings, because of the possibility of insertions. However, the constituent introduced by *to* is a complement in the construction, and the verb *object* and the following *to* are therefore tightly connected. Because of the tight connection, insertions of elements between the verb *object* and *to* can be expected to be rare. For this reason, the search string seems adequate from the point of view of recall.

As regards precision, the search strings retrieve quite a number of tokens that differ from the type of (1′) to varying degrees. These are of different types in the data. Consider (5a–d). (All authentic data are from the Old Bailey Corpus, with the year in parentheses indicating the date of the token in the corpus.)

(5) (a) They were not introduced; it was my object to keep them apart and keep the business in my own hands. (1907)
(b) I did not object to the men – there was no time. (1911)
(c) I did not object to Sueur accompanying us, and said, ... (1907)
(d) ... under those circumstances, I do not object to his calling that witness. (1907)

In (5a), the word *object* is of course a noun, and the token should be set aside, as totally irrelevant. In (5b), the word *object* is a verb and the word *to* is a preposition, as in the pattern of (1′), but the complement

is non-sentential, and the token is not immediately relevant. As for (5c–d), the word *object* is a verb, *to* is a preposition, and the complements are sentential, but each of the lower sentences of (5c–d) has its own expressed subject, and the pattern of (5c) is of the *Acc -ing* type, and that of (5d) is of the *Poss -ing* type. While neither of (5c–d) is of the subject control type, as in (1b′), and the sentences are therefore not the primary focus of this investigation, it is nevertheless worth noting the presence of such sentences in the data, because such sentences are similar to the subject control pattern of (1b′) in that they likewise involve sentential *-ing* complements.

Of the tokens retrieved with the four search strings, most are of one of the types listed in (5a–d), with non-sentential complements of the type of (5b) being very frequent. However, there are also sizeable numbers of tokens that are immediately relevant. Both *to* infinitive and *to -ing* complements involving subject control are found. Here are illustrations of the two types:

(6) (a) He says he objected to take the notes from Smith in the field, and would have them of me now … (June 28, 1820)
(b) … he has shown a great deal of contrition; and I should not object to try him again … (April 10, 1834)

(7) (a) … he objected to being searched, and denied having any money about him. (February 20, 1834)
(b) its being such an enormous amount and more than I had agreed to give them credit for, I objected to executing the order he gave me … (January 1, 1838)

Table 7.1 gives information on the frequencies of *to* infinitives and *to -ing* complements during the first two decades examined. The information

Table 7.1 *To* infinitive and *to -ing* complements of *object* involving subject control in the 1820s and 1830s

	Size	***to* infinitives**	***to -ing* complements**
1820s	7.2	52 (7.2)	1 (0.1)
1830s	11.0	83 (7.5)	4 (0.4)
Total	18.2	135 (7.4)	5 (0.3)

Note: Figures in parentheses, given for the full decades, indicate normalized frequencies per million words.

on the size of the subcorpus of each decade, given in millions of words, comes from the MonoConc search program.

The figures in Table 7.1 show that the *to* infinitive pattern was totally predominant in relation to the *to -ing* pattern in those decades. The number of *to -ing* complements is so low that it is not immediately obvious how to derive a generalization from them. Even so, the *to -ing* complements are worth taking note of.

As regards the last four decades of the corpus, both types of complement are again found. Here is an initial illustration of each from these decades:

(8) (a) . . . I objected to pay for it – I thought it very mean ... (1886)
(b) I should have decidedly objected to supplying Adams with the goods if Wilson had not wrote on the cards that he was his foreman ... (1887)

Table 7.2 gives information about the incidence of the two types of complement in the last four decades of the corpus.

Table 7.2 *To* infinitive and *to -ing* complements of *object* involving subject control, 1880–1913

	Size	***to* infinitives**	***to -ing* complements**
1880s	10.0	68 (6.8)	13 (1.3)
1890s	7.9	25 (3.2)	16 (2.0)
1900s	8.6	18 (2.1)	17 (2.0)
1910s	2.5	7 (2.8)	3 (1.2)
Total	29.0	118 (4.0)	49 (1.7)

Note: Figures in parentheses, given for the full decades, indicate normalized frequencies per million words.

The initial finding is that during the period 1880–1913, a much higher degree of variation was found than in the 1820s and 1830s. It was still the *to* infinitive complement that in general predominated over the *to -ing* pattern in sentential complements of *object* involving subject control. The predominance was at its most pronounced in the first decade, which is almost reminiscent of the 1830s, and *to* infinitives also continued to be more frequent in each of the subsequent decades. However, there was a sizeable proportion of *to -ing* complements found during this period, and, setting aside the 1910s subcorpus as being considerably smaller than the

others, it appears that the frequency of *to -ing* complements in relation to *to* infinitives tended to be on the increase during the period considered. It may be pointed out that in the first decade of the twentieth century, the frequencies of the two variants were almost the same.

Given the presence of considerable grammatical variation between the two competing, but sharply different, grammatical constructions and of change affecting the variation, it is of interest to examine factors and explanatory principles that may account for the variation and change and that may favor either the *to* infinitive or the emerging *to -ing* complement. A number of such factors or principles are delineated here, with the focus of the discussion, in the case of variation, on the latter decades, when a more appreciable amount of variation was found.

It is helpful to start by quoting a comment from Denison's work on two long-term trends that help explain the spread of the *to -ing* pattern at the expense of *to* infinitives:

> The change in complementation reflects two long-term changes, I think. One is the rise of the prepositional verb, as OBJECT and *to* come to form a unit .... The other is the drift of the English infinitive from a nominal to a verbal character, now virtually complete, and the concomitant dissociation of the infinitive marker *to* from the homonymous preposition. (1998, 266)

As Denison further notes, what had formerly been a parallelism between a *to* NP complement, as in *Max objected to departure*, and a *to* infinitive complement, as in *Max objected to depart*, "lost its force," and the *to -ing* complement, as in *Max objected to departing*, "became necessary, since the gerund was the only form capable of combining the distribution of an NP with the possibility of its own verbal adjuncts and complements (e.g. *departing surreptitiously*)" (Denison 1998, 266–7).

Both of Denison's points are valuable in explaining the emergence and the spread of the *to -ing* pattern. The prepositional *to* has a close connection with the preceding verb, and the gerund combines "the distribution of an NP with the possibility of its own verbal adjuncts and complements." The latter point leads to the suggestion, originally made in Rudanko (1998a), independently of Denison's work, that the *to -ing* pattern was, and is, likely to emerge with and to spread precisely with those superordinate predicates that selected *to* NP complements, of the type of (5b), alongside *to* infinitives. *To* NP complements, as in (5b), are not sentential. However, given the nature of the gerund and that of the *to* infinitive, as discussed by Denison, the very presence of *to*

NP complements selected by a superordinate predicate creates an environment for the emergence of the *to -ing* pattern. From this perspective, it is worth pointing to the high frequency of *to* NP complements with *object*. The 1820s and the 1880s were examined in order to shed light on their frequencies; in the former there are 84 of these, with a frequency of 11.7 per million words, and in the latter there are 155 of these, with a frequency of 15.5 per million words. Given the more nominal nature of the gerund, it may be presumed that the abundance of *to* NP complements may have fostered the emergence and spread of *to -ing* complements.

The relevance of the *to* NP factor also receives support from a broader consideration. It is of interest here, bearing in mind the comments quoted from Leech et al. (2009) above, to refer to other matrix verbs involving subject control that are similar to *object* in that *to -ing* complements have become more prominent with them in relation to *to* infinitives. Both Denison (1998, 265–266) and Rudanko (1998a, 1998b) discuss and illustrate such verbs, including *accustom oneself*, *contribute*, *look forward*, and *submit* in the former author's case and *consent*, *contribute*, *own*, and *submit* in the latter author's. It is invariably the case that such verbs also selected, and continue to select, *to* NP complements quite freely, as in *...we jointly contribute to the rent and taxes* (September 11, 1828) and in *...he had better submit to any punishment at Greenwich, than go to prison* (September 8, 1831), to take two illustrations from the Old Bailey Corpus.

Another type of analogical pressure may also have played a role in the case of *object*, even if only indirectly. This has to do with the presence of *-ing* complements with overt subjects in the historical material. Such complements are either what may be termed *to Acc -ing* or *to Poss -ing* complements, introduced in (5c) and (5d). In the case of the former, the expressed subject is in the accusative form; in the case of the latter in the possessive form. The decades of the 1820s and of the 1880s were likewise subjected to closer scrutiny here. The frequencies of the two types of complement in these decades are given in Table 7.3.

Table 7.3 *To Acc -ing* and *to Poss -ing* complements of *object* in the 1820s and 1880s

	to Acc -ing	***to Poss -ing***	**Ambiguous**
1820s	7	29	1
1880s	34	27	

Here are illustrations of the two types from both of the decades, with (9c) representing the ambiguous form:

(9) (a) I did not object to an attorney attending on his behalf. (July 3, 1822)
(b) I did not object to his taking the money out of the house, ... (January 13, 1825)
(c) ...I had paid for my lodging, but did not object to her laying down; she laid down in her clothes, ... (April 11, 1821)
(d) ...he did not object to the wine being removed the next morning by Robinson and Fisher ... (April 5, 1886)
(e) Michaels did not object to my going to the Angel with the coffee stall, ... (January 31, 1887)

Quite often, the *to Poss -ing* complements involved short personal pronouns, as in (9b), while *to Acc -ing* complements tended to involve longer NPs.

The data from the two decades show that sentential complements of the *to Acc -ing* and *to Poss -ing* types were found in these decades. Further, the frequency of *to Acc -ing* complements appears to have increased in the later decade. The presence of *to Acc -ing* and *to Poss -ing* complements in the data is noted as a potential factor indirectly contributing to the general spread of *-ing* complements even in subject control constructions. The spread of *to -ing* complements extends to verbs that are restricted to subject control readings (see Rudanko 1998a, 1998b), and the presence of *to Acc -ing* and *to Poss -ing* complements cannot be a *sine qua non* for that spread, but such complements involve sentential NPs, and presumably strengthen the impact of the *to* NP factor introduced above. The impact of *-ing* constructions with overt subjects will merit further investigation in the case of other predicates that have been affected by the Great Complement Shift.

A more specific explanatory principle of a syntactic nature that has been identified in the recent literature on complementation as impacting the choice of sentential complements is the Extraction Principle. It was introduced and discussed in Chapter 6, and, as was noted, the extraction of a constituent out of a complement of a higher predicate favors the *to* infinitive construction over an *-ing* complement. When the 140 tokens of the 1820s and 1830s subcorpus and the 167 tokens of the 1880s to 1910s subcorpus are examined for extraction, it is observed that extractions are rare with *object*, but six are found, two in the earlier corpus and four in the latter. Here are all six tokens:

(10) (a) ...he at first offered me a 20l. Bank of England note, which I objected to change ... (January 14, 1830)

(b) ... he then offered a silver watch for 4l, which I objected to give, ... (December 1, 1831)
(c) ... the first book I received was one called the private customers' book, which he objected to call a ledger; the other is the auction book – the expenses book and pass-book came in the second parcel from Mr. Leeming ... (January 7, 1884)
(d) Mr. McHenry gave me two notes to give to Mr. Gil – on the way to Mr. Gil's the accused wanted to go by a certain road, which I objected to go, as it was not the straight road, and then the accused consented to go my way, ... (June 23, 1884)
(e) ... hold security as offered, which I think you should not object to do now, and have my grateful appreciation for (October 23, 1899)
(f) The only thing I objected to sign was one cheque for Jackson. (June 23, 1908)

In all of (10a–f), the complement is of the *to* infinitive type, as predicted by the Extraction Principle. The applicability of the Extraction Principle to (10a–f) is worth recording and it is of interest from a qualitative perspective, but the low number of tokens means that no statistical significance can be claimed for this finding in either subcorpus.

The logical next step, in view of the discussion of *accustomed* in Chapter 6, is to apply the semantic generalization proposed there to sentential complements of *object*. The generalization may be summed up as follows:

The [+/–Choice] Principle

At a time of grammatical variation between *to* infinitive and *to -ing* complement options, the *to* infinitive complement tends to be favored with [+Choice] lower predicates and the *to -ing* complement with [–Choice] lower predicates.

For the principle to have predictive power and theoretical interest, it is important to define the notions of [+Choice] and [–Choice] independently of the two types of sentential complement. As in Chapter 6, the [+/–Choice] concepts are here associated with semantic roles. A [+Choice] subject is linked to the semantic role of Agent and to an agentive interpretation of the predicate in question. As Gruber put it in his classic treatment, an "agentive verb is one whose subject refers to an animate object which is thought of as the willful source or agent of the activity described in the sentence" (1967, 943). Decades later, Dowty identified "volitional involvement in the event or state" as an important feature of

what may be termed the "Agent-Proto-Role" (Dowty 1991, 572; see also Jackendoff 1990; Hundt 2004), and the notion of "volitional involvement in the event or state" is in this approach taken prototypically to characterize a [+Choice] predicate. On the other hand, a [–Choice] lower subject lacks "volitional involvement in the event or state," and is prototypically linked to the semantic role of Patient.

To illustrate the distinction in the case of complements of *object*, consider first the sentences in (11a–c) and (12a–c):

(11) (a) I did object to produce my cheque book and pass book; I did not consider it relevant to the inquiry ... (September 14, 1885)
(b) ... I objected to advance the premium, and he then proposed that it should be a loan ... (February 27, 1882)
(c) ... I objected to take him on again, but afterwards agreed to give him another trial ... (January 11, 1904)

(12) (a) Two orders were given in my presence – the defendant said he sold to shippers, and he would object to giving the order unless my brother would not sell to shippers. (March 27, 1882)
(b) ... you objected to going to Bow Street, and I told you I would take you there by the scruff of your neck ... (July 20, 1896)
(c) I should have decidedly objected to supplying Adams with the goods if Wilson had not wrote on the cards that he was the foreman; ... (September 12, 1887)

Predicates such as *produce my cheque book*, *advance the premium*, and *take him on again* are [+Choice] in that they encode a situation where the referent of the subject can exercise his or her free will. The same holds of the predicates *giving the order*, *going to Bow Street*, and *supplying Adams with the goods* in (12a–c). Analogously to what was noted in the discussion of *accustomed*, it is easy to turn such predicates into the imperative (cf. Taylor 2003, 31), as in *Produce my cheque book!*

Turning to [–Choice] predicates, there are two major types of constructions in the present data on *object* that are of this type. First, consider the illustrations in (13a–b) and (14a–c):

(13) (a) Margaret Smith did not object to be examined in prison because her solicitors were not there ... (January 9, 1888)
(b) I went to East cheap on Saturday. I asked if he objected to be searched; he said, 'No.'(October 20, 1890)

(14) (a) You did not attempt to run away, nor object to being searched – you begged hard to be let go. (March 17, 1884)

(b) I then commenced to question him and he objected to being catechised much, as he called it, in a public place... (October 16, 1905)

Prototypically, a [–Choice] lower subject occurs in a passive sentence, and corresponds to the direct object of an active sentence. Such is the case in (13a–b), which have *to* infinitive complements, and (14a–b), which have *to -ing* complements. In (13a–b) and (14a–b), the lower subject has the role of Patient or Undergoer, as in (13a). An imperative of the type *?Be examined in prison!* seem less likely than one of the type of *Produce my cheque book!*

For a second major type of [–Choice] predicates and [–Choice] lower subjects, consider (15a–b) and (16a–b):

(15) (a) I did not take her statement down at the time, she objected to have it taken down – she said she was in fear of having her life taken by the prisoner and his companions... (October 22, 1888)

(b) ...he said, "I do object to have my boxes searched until I see the Ambassador or the French Consul" – subsequently he allowed them to be searched... (January 13, 1902)

(16) (a) I objected to having my address printed without my consent. (February 8, 1886)

(b) ...the deceased seemed to object to having his face blacked – he turned nasty before he was struck by the prisoner... (July 25, 1904)

As regards (15a–b), with *to* infinitive complements, and (16a–b), with *to -ing* complements, they involve a non-causative *have* construction. The *have* construction may be used in two different ways. It may be causative in nature, as in *He had all the prisoners punished* (from Palmer 1974, 199), where the predicate and the subject are [+Choice]. However, the *have* construction may also have a non-causative experiential use with the meaning that a person undergoes an event. Huddleston and Pullum illustrate this latter kind of use with *He had the police call in the middle of the night to question him about his secretary's disappearance*, and comment that in this sentence "the visit was something that happened to him rather than something he arranged" (2002, 1236). This kind of "happen to" or "happenstance" meaning may also be found when *have* is followed by a past participle, as in *Alberto Tomba collided with a slalom pole and had his goggles knocked askew, blocking his vision* (COCA). This

"happen to" or "happenstance" use of the *have* construction involves a [–Choice] subject, as in (15a–b) and (16a–b). (In (16b), the NP *the deceased* refers to the person at a time when the person was still alive.)

In earlier work (Rudanko 2010; see also Chapter 6) the present author has suggested a generalization to the effect that while no absolute rule can be maintained, it is the case that at a time of considerable grammatical variation between *to* infinitives and *to -ing* complements, [+Choice] lower subjects and predicates are linked to *to* infinitive complements and that [–Choice] lower subjects and predicates are linked to *to -ing* complements, and it is of interest to see whether the distinction may be relevant to the two types of sentential complements of *object*.

The illustrations produced above show that no hard-and-fast rule can be established necessarily linking one type of complement to one type of interpretation. In (11a–b) and (12a–b), [+Choice] subjects are illustrated with both types of complement, and in (13a–b) and (14a–b), the same is done for [–Choice] subjects in the case of passive lower clauses with Patient or Undergoer subjects. For their part, (15a–b) and (16a–b) show that happenstance *have*, with its [–Choice] interpretation, may also be found with both types of complement.

While no absolute rule can therefore be given, it is of interest to examine the overall frequencies of the two types of readings in both subcorpora. These are given for the 1820s and 1830s corpus in Table 7.4.

Table 7.4 *To* infinitive and *to -ing* complements of *object* with [+Choice] and [–Choice] lower subjects in the 1820s and 1830s

	[+Choice]	**[–Choice]**
to infinitive	119	16
to -ing	1	4

Sentence (7a) is one of the four [–Choice] tokens of the *to -ing* type. Further illustrations of both *to* infinitives and *to -ing* complements from the 1820s and 1830s subcorpus are given in (17a–b) and (18a–c):

(17) (a) Q. In what state was it? A. A little opened; they objected to being searched – they did not go into the shop after they had been in the room. (July 3, 1828)
(b) ... Teuten objected to having his name attached to the bill ... (October 22, 1838)

(18) (a) I afterwards asked Richards if he objected to put a sovereign of the money down till I came from Rotherhithe... (February 4, 1839)
(b) ...he said he found them under the raspberry-bush – he objected to be taken by a City officer. (June 15, 1835)
(c) *The witness, who called himself a Christian Israelite, and an English Israelite, objected to be sworn,...* (April 8, 1839)

The [–Choice] complements in (7a), (17a), and (18b–c) involve the lower subject of a passive, corresponding to the direct object of an active with the Patient or Undergoer role. The [–Choice] complement of (17b) illustrates the non-causative *have* construction.

The figures for *to -ing* complements are very low in the 1820s and 1830s subcorpus, and no statistical significance can be claimed for such low figures. It should also be observed that the large majority of [–Choice] complements are of the *to* infinitive type. However, it is nevertheless noteworthy that of the five *to -ing* complements, four are of the [–Choice] type, suggesting an attraction between *to -ing* and a [–Choice] complement.

In the later corpus, the larger amount of variation between the two types of complement offers the prospect of further comparison. Table 7.5 gives information on the incidence of [+Choice] and [–Choice] predicates with the two types of complement in the final decades of the corpus.

Table 7.5 *To* infinitive and *to -ing* complements of *object* with [+Choice] and [–Choice] lower subjects, 1880s–1910s

	[+Choice]	**[–Choice]**
to infinitive	108	10
to -ing	32	17

Table 7.5 indicates that [+Choice] lower predicates and lower subjects are clearly predominant in the subcorpus, but a sizeable number of [–Choice] lower predicates are also found. With [+Choice] predicates, *to* infinitives are much more frequent than *to -ing* complements. However, the *to -ing* variant does appear to be attracted to [–Choice] predicates, and with such predicates it is in fact more frequent than the *to* infinitive variant. When the Chi-square test is used, the chi-square

obtained is 15.68, and the results are significant at the $p < 0.001$ level of significance (df = 1).

It may be added that as far as the ten [–Choice] predicates in *to* infinitive constructions are concerned, nine of them are from the first two decades of the period under consideration, and only one, given as (15b) above, is from later than 1900.

While the context of a [–Choice] predicate may have provided a niche for the *to -ing* complement in an incipient way even in the 1820s and the 1830s, the attraction was not strong enough at that time to override the general preference for the *to* infinitive in that subcorpus. On the other hand, what emerges from Table 7.5 is that [+Choice] versus [–Choice] dimension in the semantic interpretation of the lower predicate may be considered a factor bearing on complement selection at a time when there was a considerable amount of variation between the two competing types of complement. *To* infinitive complements were considerably more frequent overall even in the last four decades of the corpus, but the *to -ing* construction had found a well-defined semantic niche with [–Choice] lower predicates as a base for further expansion.

3 Summary and concluding observations

While both *to* infinitive and *to -ing* complements often involve subject control, there are robust grammatical differences between the types of complement. Despite of such differences, some predicates have shown variation and change between the two patterns. The Old Bailey Corpus constitutes a good database to explore the issue, and this chapter examined the matrix verb *object* from this perspective, with a focus on the period 1880–1913.

Considerable variation between the two sentential complements is attested in the data, and the study examined factors bearing on the variation and change that is documented. The *to -ing* pattern tends to show some increase in its frequency during the period, both in its normalized frequency and in its frequency relative to that of its rival, and it is suggested that the availability of *-ing* complements, both of the *to Acc -ing* and *to Poss -ing* types, with overt subjects may have fostered this trend. The study also examined the potential impact of extractions, but their number is relatively low in the data, and no results of statistical significance can be based on the low numbers.

A semantic distinction is made between [+Choice] and [–Choice] lower subjects and lower predicates. Subjects that encode volitional involvement in the action or state expressed by the lower clause are

[+Choice]. As for [–Choice] subjects, two major classes are identified. The first consists of passive subjects that are the direct objects of the corresponding active sentences, deriving their Patient or Undergoer roles from these active sentences. The other concerns what was termed the "happenstance" *have* construction. There is no one-to-one correspondence between the type of complement and the type of reading, and both types of complement are found with both [+Choice] and [–Choice] readings. However, in the 1880s–1910s subcorpus, where there is a considerable amount of variation between the two types of sentential complements, it was observed that there is a significant tendency for the *to -ing* construction to be linked to the [–Choice] reading of the lower predicate.

This study invites follow-up work on each of the three factors and principles explored here, taking other predicates into account that have shown variation and change between the two patterns in recent English. The Old Bailey Corpus offers a most welcome addition to the electronic corpora available to the scholarly community, and it provides an excellent database for shedding further light on the Great Complement Shift and on the system of English predicate complementation as it has evolved in recent centuries.

8

Complements of *Commit*: Variation in the Grammar of an Innovative Verb

1 Introduction

Consider sentences (1a–b), from the Bank of English Corpus:

(1) (a) You're not willing to commit to prior congressional authorization? (US Spok)
(b) House Minority Leader Richard A. Gephardt, Missouri Democrat, refused to commit to a timetable. (US News)

Examining the senses of the verb *commit* in the 1989 second edition of the *OED*, one is hard put to find the usage exemplified in (1a–b) recorded among them. The closest seem to be two types of reflexive usages, 10.d and 10.e. The former is glossed as "to pledge oneself by implication *to* a course (evil or risky)," and illustrations include *This is what comes of committing ourselves to an evil line of conduct* (1839, J. H. Newman, *Parochial and Plain Sermons*).

As regards sense 10.e, it is glossed as "to enter into commitment (sense 6.c)." Sense 6.c of the noun *commitment*, for its part, is given as "an absolute moral choice of a course of action; hence, the state of being involved in political or social questions, or in furthering a particular doctrine or cause, esp. in one's literary or artistic expression; moral seriousness or social responsibility in artistic productions."

The earliest illustration of the reflexive use of sense 10.e in the *OED* is from 1948. Here is part of the second illustration from two years later: *"If you want to commit yourself," writes a young imbecile, "what are you waiting for? Join the Communist Party."* (1950, P. Frechtman). In the example,

the verb does not have an expressed complement, and this is also true of the other two illustrations of the sense in the *OED*.

The usage of (1a–b) may possibly be viewed as a non-reflexive variant of the reflexive senses in the *OED*. However, the usage of (1a–b) suggests that the sense of *commitment* can be generalized in present-day English from a literary or artistic orientation to a less specific notion of attachment to a particular course of action and that the course of action does not need to be evil.

The more recent electronic edition of the *OED* has a supplementary sense for *commit* under "draft additions January 2002" that is relevant here and does recognize the emergence of the non-reflexive use of the verb with the sense in question:

> *intr.* To pledge oneself; to make a personal commitment to a course of action, a contract, etc.; *spec.* to resolve to remain in a long-term (monogamous) relationship with another person; to demonstrate such resolution through a willingness to marry, have children, etc. (*OED Online*, April 2007)

Five illustrations are offered of this sense in the electronic edition. Here is one of them:

(2) It will alert actors and actresses that when they commit, they commit. (1993, *Times*)

In (2), the verb occurs without a complement, and the same holds of the other illustrations of the innovative sense of the verb in the electronic edition of the *OED*. In contrast, the verb does have a complement in (1a–b), and this makes the usage in question all the more innovative and all the more worth investigating.

The treatment of the verb *commit* in the *OED* suggests that the non-reflexive usage of the verb *commit* as exemplified in (1a–b) is a recent development in the language. Here it is possible to search the British English and American English parts of the CEN to examine this hypothesis. The verb *commit* has a number of different uses in the corpus, but if the present discussion is limited to the patterns of (1a–b) and of the reflexive pattern as exemplified by senses 10.d and 10.e in the *OED*, it is observed that not a single token of the intransitive pattern of (1a–b) is encountered in the corpus.

On the other hand, there are numerous tokens of the reflexive pattern in both British and American English. The reflexive pattern is

found with both *to* NP complements and zero complements, as detailed in Table 8.1.

Table 8.1 The reflexive *commit oneself* in the CEN

	British English CEN	**American English CEN**
to NP	30	6
zero	26	14

Here are some illustrations, (3a–b) from British English and (3c–d) from American English:

(3) (a) John had coloured to the eyes, and was stammering something about the true priest cut off from earthly marriage and therefore free to commit himself entirely to his work, when Mrs. Callenden walked in ... (1897, Hall Caine, *The Christian*)
(b) It was doubtful whether he would ever commit himself irrevocably. (1899, George Gissing, *The Crown of Life*)
(c) Donna Tulia, on the other hand, had committed herself to the acquaintance on her own responsibility, ... (1892, Francis Marion Crawford, *Don Orsino*)
(d) ... he had shut up in his lodging, pretending a sudden journey to Naples, determined not to set foot in the house until he heard that Donna Tulia had committed herself. (1887, Francis Marion Crawford, *Saracinesca*)

The high number of zero complements is worth noting, but often it is easy enough to infer an understood complement from the context. For instance, in the case of (3b), we might consider an extended version of the example:

(3) (b′) Once in a twelvemonth or so, he made up his mind to marry, but never went further than the intention. It was doubtful whether he would ever commit himself irrevocably. (1899, George Gissing, *The Crown of Life*)

While the reflexive pattern with *commit* is therefore easy to find in the CEN, the intransitive pattern of (1a–b) is absent. This provides confirmation for the idea that the usage in question is recent in English.

Further evidence confirming the innovative nature of the usage of (1a–b) is provided by Poutsma (in his unpublished Dictionary), for, in

that monumental work of reference, not a single token of the intransitive verb *commit* with an expressed complement is given.

In present-day English, the intransitive verb *commit* can select *to* NP complements, as was shown in (1a–b). What makes the usage of (1a–b) of interest from the perspective of sentential complementation is that in addition to *to* NP complements, the verb is capable of selecting sentential complements in present-day English. Furthermore, there is variation with respect to the form of such complements. For a first illustration, consider (4a–b):

(4) (a) "Most schools commit to comply, and it's up to you to figure out if they have or haven't," said [a name] of the NWLC. (US News)
(b) An alternative is to have people commit to meeting more than once until the issue is cleared. (US Books)

The complement in (4a) is a *to* infinitive clause. As regards (4b), the terminology used in earlier chapters is likewise used in this chapter, and the complement in (4b) is termed a *to -ing* complement.

The lower predicates of (4a–b) naturally have their own subject arguments, and such arguments make it possible to represent the argument structures of the lower verbs in question. The structures involved in (4a–b) are of course control structures, and the postulation of the understood subjects also makes it easy to characterize the structures in question as subject control structures.

The structures of the salient parts of (4a) and (4b) may be represented as in (4a′) and (4b′):

(4) (a′) $[[\text{most schools}]_{NP1}\ [\text{commit}]_{Verb1}\ [[\text{PRO}]_{NP2}\ [[\text{to}]_{Aux}\ \text{comply ...}]_{VP}]_{S2}]_{S1}$
(b′) $[[\text{people}]_{NP1}\ [\text{commit}]_{Verb1}\ [\text{to}]_{Prep}\ [[[\text{PRO}]_{NP2}\ [\text{meeting more ...}]_{VP}]_{S2}]_{NP}]_{S1}$

The variation illustrated in (4a–b) thus involves variation between the word *to* as an auxiliary, in the infinitival structure of (4a′), and as a preposition, in the case of the *to -ing* pattern in (4b′). Chapters 6 and 7 of the present book also explored variation of this type, with the matrix predicates *accustomed* and *object* being exemplified with both *to* infinitive and *to -ing* complements. However, in those cases, the matrix predicates in question were long established in the usage with sentential complements, and what was remarkable about them was the spread of the *to -ing* pattern at the expense of the *to* infinitive pattern. In the case of the intransitive

verb *commit* under investigation here, we are dealing with variation in the complement selection properties of a matrix predicate that appears to be novel in the usage with sentential complements in the language.

The purpose of this chapter is to shed light on the incidence of the two types of sentential complements with *commit* in both British and American English, taking a number of text types into account. One concern is to shed light on the overall frequencies of the two variants; another is to attempt to identify some factor or factors that might bear on the selection of the two types of complement.

2 Results and illustrations

For the task of investigating the intransitive and non-reflexive verb *commit* in current British and American English, the three larger corpora of American English from the Bank of English Corpus were selected for study. These are the US Spoken, US Books, and US News corpora.

Regarding British English, there are a larger number of corpora to choose from. For this study, four were selected, with an eye to at least partly matching the text types of the American English corpora. The four are the British Spoken, abbreviated as BrSpok; British Books, abbreviated as BrBooks; British News, abbreviated in examples as BrNews, and *Times* Corpora. The names are self-explanatory, except that in the case of the British News Corpus, it may be noted that the corpus represents British national newspapers.

The search strings used are given in Table 8.2. It should be noted that in the case of the search string *committed + to*, the term *committed* was specified as a verb, which can of course be done, given the tags in the corpora. Without such a specification, the search string in question would no doubt have yielded a large number of tokens where *committed* is an adjective, and such tokens, while worth investigating, are not the focus of the present study.

Table 8.2 The search strings used

commit + to
committed + to
committing + to
commits + to

Table 8.3 lists the corpora examined, with their sizes, and gives information on the numbers of hits obtained in the corpora.

Table 8.3 The corpora examined, with their sizes

Corpus	Size	Number of hits
BrSpok	38,679,557	19
BrBooks	54,681,389	57
BrNews	50,838,693	100
The Times	59,795,549	133
US Spok	29,155,033	96
US Books	50,224,500	120
US News	37,970,504	181

The total numbers of hits as given in Table 8.3, raw totals as they are, clearly indicate that the use of *commit* + *to* is much more frequent in American English than in British English. The overall totals in Table 8.3 are of interest by way of general background, but they of course include a number of tokens where the pattern encountered is not of the relevant type as defined in Section 1. Here are some illustrations of such irrelevant tokens:

(5) (a) What terrible crime did he commit to merit such a punishment? (BrNews)
(b) ... a blood rite of passage US politicians seem obliged to commit to reach office. (BrNews)
(c) Pulling up in third place, though, are those miscreant executives and the dastardly deeds they commit to make a few bucks here and there. (The *Times*)

Sentences (5a–c) highlight the need to be sensitive to the notion of non-canonical sentence structure in English. Each of (5a–c) involves the extraction of a constituent that in a canonical word order would follow the verb *commit*, or a corresponding filler gap dependency, to use a different terminology. The lower clauses of (5a–c) are adjuncts, and none of these sentences is relevant to the present investigation.

When tokens of the type of (5a–c) are excluded, a large number of the remaining tokens involve non-sentential complements, of the type already illustrated in (1a–b). The next step in the analysis is to identify and to exclude these. When sentential complements involving understood subjects are then identified, the totals obtained are those given in Table 8.4.

There are thus only 49 tokens of the pattern in the British English corpora. When the size of each British English corpus is rounded to the

Table 8.4 Sentential complements involving subject control in the corpora

Corpus	Size	No. of tokens
BrSpok	38,679,557	2
BrBooks	54,681,389	5
BrNews	50,838,693	17
The *Times*	59,795,549	25
US Spok	29,155,033	32
US Books	50,224,500	27
US News	37,970,504	57

nearest million, the total is 205 million words. This gives a normalized frequency of 0.24 per million words.

For American English, there are 116 tokens. The total number of words in the three American English corpora is 117 million. This gives a normalized frequency of 0.99 per one million words. The construction in question is thus much more common in current American English than in current British English.

2.1 *Commit to* in current British English

To begin with British English, the numbers of tokens in the BrSpoken and BrBooks Corpora are so very small that it is hard to make any generalization based on them. Still, it is worth observing that sentential complements are found in both corpora. Here are three illustrations:

(6) (a) ...I don't think [a name] would ever quite commit to saying whether she should do four or not. (BrSpok)
(b) Here you are discounting safe, nominal cash flows – safe because your company must commit to pay if it takes the loan, and nominal because the payments would be fixed regardless of future inflation. (BrBooks)
(c) We all need to take on a different habit and commit to doing something else. (BrBooks)

It may be mentioned, even if only as a curiosity, that the five tokens in the BrBooks Corpus are about evenly divided between the two patterns.

The British News and the *Times* Corpora afford larger numbers of tokens of sentential complements. Table 8.5 gives the numbers of tokens involved.

Table 8.5 Sentential complements of *commit* involving subject control in two British English corpora

Corpus	*to* infinitive	*to -ing*
BrNews	8	9
The *Times*	9	16

Here are some illustrations of the two types from these corpora:

(7) (a) Now let us commit to build a Europe in which we have no need of new Checkpoint Charlies. (BrNews)
(b) Yet today Ken Livingstone publicly commits to work with New Labour not against it, ... (BrNews)
(c) If the tour is to start next year, 20 players must commit to join it by May 30, 2002. (The *Times*)
(d) The Government told us what was needed from us and we committed to provide these requirements. (The *Times*)

(8) (a) ... they must commit to broadcasting every race of the season live and in full. (BrNews)
(b) "They will not commit to making the investment Britain's public services need ..." (BrNews)
(c) A new detective service will find out if you'll have neighbours from hell before you commit to moving in, ... (The *Times*)
(d) ... Bush has put his name to a meaningless pledge that promises everything to both hawks and doves and commits to delivering nothing. (The *Times*)

In light of the examples given in (7a–d) and (8a–d), an obvious question that arises is whether it is possible to discern a difference in meaning between the two patterns in the case of *commit*. Such a search comes to mind in view of Bolinger's Generalization. This says that a "difference in syntactic form always spells a difference in meaning" (Bolinger 1968, 127). However, it is not easy to identify a semantic distinction to tease apart the two types of complement in sentential complements of *commit*.

One possible line of investigation is to recall the idea first mooted and developed in connection with the adjective *accustomed* in Chapter 6, in the case of slightly older usage, and then also discussed with reference

to the verb *object* in Chapter 7. The proposal was made that at a time of considerable variation between the two patterns, the *to* infinitive may be associated with a [+Choice] lower predicate and that the *to -ing* construction may be linked to a [–Choice] lower predicate. However, it is hardly possible to expect the distinction to apply to the sentential complements of *commit* in precisely this way. The reason is simply that the sense of the verb favors an agentive lower subject. For instance, while a construction such as *accustomed to being snubbed* is normal, to hark back to an authentic sentence cited in Chapter 6, a construction such as *commit to be/being snubbed* is hardly likely.

The question then is whether it is possible to develop some distinction, perhaps a related distinction, that would apply to a verb of the type of *commit*. It may be helpful here to consider a sentence of the type of (8a), for instance. The key part of the token is *they must commit to broadcasting every race*. Clearly the lower predicate *broadcasting every race* is [+Choice] in the terms developed in Chapter 6 and further applied in Chapter 7. However, it may be worth paying attention to the modal *must* in the sentence. The proposal is made here that the modal, which is deontic in this case, entails what is here termed an obligational context. An obligational context involves some external factor or force or influence acting on the will of the person entering into a commitment and prompting the commitment, and the notion bears some relation to choice, or rather the lack of choice. Deontic modals *must* or *should*, as in *You must/should commit to doing X*, may be viewed as overt markers of obligation.

For its part, a *to* infinitive may be linked to a non-obligational context. If the notion of a sense of choice is extended further, it may also be possible to say that a *to* infinitive complement may convey a more specific or a more formal commitment than does a *to -ing* complement.

The idea that a *to* infinitive may be associated with a formal commitment receives support from sentence (7a), which appears to be from formal political oratory, but it is not always easy independently to decide or to verify whether a commitment is formal. As for the sense of choice on the part of the person entering into a commitment in the case of a *to* infinitive and the possible preference for a *to -ing* complement in an obligational context, the idea receives some support from (8a), with its deontic modal *must*, but (7c) is likewise obligational, and has a *to* infinitive. The status of this putative factor remains unresolved, for in the BrNews and the *Times* material the number of such sentences with expressions of obligation on the person entering into a commitment is very low, with only four tokens, two of each type.

An obligational context may also involve overtones of imposition and of unwillingness to enter into a commitment. An avenue to probe the possible association of the *to -ing* complement with unwillingness and reluctance may be to examine whether the higher clause is negative, as in (8b). There are six negative higher clauses in the BrNews and the *Times* material, and in all cases, the complement is of the *to -ing* type. This finding is suggestive but not a conclusive result.

The semantic distinctions outlined can hardly be appealed to as the sole explanations of variation in every case, and they are an invitation to further work, rather than confirmed findings.

Regarding other avenues, of a non-semantic nature, to explore the variation encountered, the examination of extractions out of sentential complements is surprisingly unfruitful in the case of *commit*. The reason is simply that extractions out of the sentential complements of the verb appear to be very rare. Among the approximately 40 tokens in the BrNews and the *Times* Corpora, the present investigator has been unable to find a single token involving extraction.

The *horror aequi* principle may also be considered here. It involves the "tendency to avoid the use of formally (near-)identical and (near-)adjacent (non-coordinate) grammatical elements and structures" (Rohdenburg 2003, 236), but it must be noted that the numbers of tokens which come within the purview of the principle are low. The principle is applicable in two constellations here. One is where the infinitival marker *to* immediately precedes *commit*, and the other is where *commit* occurs in the form *committing*. In the former case, the expected form of the complement is obviously of the *to -ing* type. In the latter case, in contrast, the *horror aequi* principle naturally predicts a preference for a *to* infinitive complement.

The present investigator has found only three tokens in the BrNews Corpus where the principle is salient. The principle is observed in two of them:

(9) (a) ... "The proposal uses unconditional language requiring the PA to cease violent activities, whereas the Israelis ... are only asked to 'commit to cease'." (BrNews)
(b) ... it's too much of a risk for young people to commit to learning the skills and then things start to dry up. (BrNews)
(c) ... he cannot demolish Saddam without committing to rebuild Iraq, with all the attendant risks. (BrNews)

The exception is (9a), where a *to* infinitive complement follows *commit* even though *commit* itself is preceded by the infinitival marker *to*. This

particular example also runs counter to the "imposition" condition, which might have been expected to favor a *to -ing* complement, but it may be observed that the *commit* construction is in quotation marks and the commitment in question seems to be of a formal nature.

In the *Times* Corpus there are nine sentences in which the *horror aequi* principle is salient. It turns out that in all nine the form of the complement is in accordance with the principle. However, only two of the nine are of the type in which *commit* occurs in the form *committing*.

Here are two illustrations:

(10) (a) ESB is to build two peat-powered stations and is expected to commit to generating 200 megawatts of wind energy in a bid to gain 30% of the renewable energy market. (The *Times*)
(b) The murals threaten less than they used to, are less about talking up the fight and more about committing to survive it. (The *Times*)

The picture that emerges from the British English data is that the verb is fairly rare in this regional variety, especially in the spoken language, but it is more frequent in newspaper English. Overall, *to -ing* complements tend to be more common with the verb than *to* infinitives, but they do not predominate in an overwhelming fashion. It is difficult to make out a consistent semantic distinction between the two variants in the case of *commit*, but the *to* infinitive may involve an association with a sense of choice on the part of the person entering into a commitment or with a sense that the commitment is of a formal nature. It may be hoped that such suggestions can be pursued in later research. As regards the *horror aequi* principle, *to -ing* forms are found in the context of *to commit*, as predicted by the principle, but the numbers are low, and the environment of *committing* is hard to comment on because of the very low number of tokens. The low numbers of tokens are a function of the rarity of the pattern in British English overall.

2.2 *Commit to* in current American English

For the American English data, Table 8.6 gives information of the incidence of the two types of sentential complements in the three corpora.

To -ing complements predominate over *to* infinitives in each corpus by a fairly clear margin, and the proportional differences tend to be larger than in the British English data. Nevertheless, plentiful numbers

Table 8.6 *To* infinitive and *to -ing* complements of *commit* in three American English corpora

Corpus	*to* infinitives	*to -ing*
US Spok	11	21
US Books	10	17
US News	23	34

of *to* infinitives can be found in American English as well, and the proportion of *to* infinitives in the text type of newspaper English, as represented by US News, is rather higher than might be expected on the basis of the figures from spoken American English.

Here are some illustrations of both types:

(11) (a) Well, let me read you from the text: The parties commit to ensure that all the military commanders will issue and compel compliance with clear orders that preclude all offensive operations, ... (US Spok)

(b) ... most people actually succeed when they commit to do whatever it is they want to do in life. (US Books)

(c) We'll work to reallocate resources, and I'll commit to go with her to the foundation community to get additional funds if necessary. (US News)

(12) (a) ... insisting that the United States commit to stabilizing carbon dioxide emissions. (US Spok)

(b) An alternative is to have people commit to meeting more than once until the issue is cleared. (US Books)

(c) ... He said the United States could not commit to lifting sanctions unless Libya ... (US News)

As was the case with the British English data, it is not easy to discern any one factor to predict variation between the two types of complement. However, it is of interest to examine the two ideas which were mooted above: the first is that a *to* infinitive complement may be linked to a sense of choice on the part of the person entering into a commitment, while an obligational context favors a *to -ing* complement, and the second is that a *to* infinitive may express a more specific or formal commitment than is the case with a *to -ing* complement.

Of the tokens produced above, (11a) looks like a case of a formal commitment. Similarly, it is of interest to note the use of the verbs *insist*

and *have* in (12a) and in (12b), respectively. These are overt markers of obligation, and the use of the *to -ing* complement is thus in accordance with the proposal made.

If the American English material is examined in its entirety, it is again not always easy to verify the formality of a commitment independently. However, overtly obligational contexts are easier to identify, and their number is as high as 29. The expectation is that such contexts might favor the *to -ing* variant. The 29 tokens may also be examined from the point of view of the formality of the commitment. Here are some illustrations:

(13) (a) The top Democrat in the Senate, Tom Daschle, says Pyongyang must open up to U-N inspections, and commit to destroy weapons of mass destruction. (US Spok)
(b) The rich countries should figure out what they owe and commit to pay, and pay in a timely fashion. (US Spok)
(c) Funded in part with outside donations, the Academy for Urban School Leadership is under contract to train 32 would-be teachers a year who must commit to work for five years in low-performing Chicago public schools. (US News)

(14) (a) The top Democrat in the Senate, Tom Daschle, said North Korea must now open itself immediately to U-N weapons inspections, as well as commit to destroying weapons of mass destruction it possesses. (US Spok)
(b) Hollister says the state and federal governments have to commit to more closely monitoring homes such as the one that burned in Detroit this morning. (US Spok)
(c) "If she made a commitment for another four years, she should commit to doing another four years at full range and not cut back," says industry analyst [a name] of Mediaweek. (US News)

The variation between (13a) and (14a) demonstrates that there is some flexibility in using the two patterns. For its part, an example such as (13a) may be viewed from the aspect of a formal commitment, and the *to* infinitive in (13a–b) may also carry the sense that the person asking for the commitment wants it to be specific in nature. This said, the *to -ing* pattern does not seem excluded from being linked to a formal commitment in American English, as in (14c).

There is clearly some flexibility and variation in the choice of complement in obligational contexts, but what is of special interest are overall numbers of complements in such contexts. Of the 29 sentences with a

marker of obligation on the person supposed to be entering into a commitment, six have a *to* infinitive complement and as many as 23 have a *to -ing* complement. The totals are given in Table 8.7.

Table 8.7 Sentential complements of *commit* in obligational and non-obligational contexts in current American English

	***to* inf.**	***to -ing***	**totals**
obligational	6	23	29
non-obligational	38	49	87
Total	44	72	116

The proportion of *to -ing* complements in obligational contexts is thus considerably higher than is their proportion in non-obligational contexts: 23 out of 29 versus 49 out of 87. When the chi-square test is applied, the result is statistically significant at the level of $p < 0.05$.

A comment may also be appended on sentences where the meaning of the higher clause is negated. Given the potential link of the *to -ing* pattern to unwillingness and reluctance on the part of the person supposed to be entering into a commitment, the prediction is that *to -ing* complements might be especially prevalent in such negative contexts. There are only 12 tokens of such negative contexts in the three American English corpora altogether. The results are not statistically significant, but of the 12, 9 do have a *to -ing* complement, and only 3 a *to* infinitive. Here are some illustrations of such negative contexts:

(15) (a) President Jiang said, we will not commit to renounce the use of force with regard to Taiwan. (US Spok)
(b) "They wouldn't commit to be non-biased," says Al Lenza, a Northwest vice president. (US News)

(16) (a) And on substance, the Israelis won't commit to withdrawing from the West Bank and Gaza, which is the main Palestinian demand. (US Spok)
(b) [a name], though, wouldn't commit to saying [a name] won't play if he doesn't practice by a certain point. (US News)

The high proportion of *to -ing* complements is suggestive and an invitation for further research.

As for non-semantic factors, extraction is again virtually absent from the data. As far as the present investigator is able to make out, there is

only one token of extraction. As a curiosity, it may be mentioned that it is of the *to* infinitive form, as might be expected:

(17) ... and the pictures we all commit to make every day are part of the myth creating as well. (US Spok)

In contrast, the *horror aequi* principle suggests itself for investigation, as in the case of the British English data. Table 8.8 gives information on the numbers of tokens in each corpus where the *horror aequi* principle is salient, and on the cases where the principle is observed or not observed.

Table 8.8 *Horror Aequi* effects in the American English corpora

Corpus	***Horror Aequi*** **salient**	***Horror Aequi*** **observed/violated**
US Spok	10	9/1
US Books	9	9/0
US News	22	17/5

Here are two illustrations where the *horror aequi* principle is observed:

(18) (a) ... would he be willing to commit to allowing all of his fundraisers that he participates in to be open to the press. (US Spok)
(b) What does it MEAN to be returning as conscious beings to the circle, committing to make a circle? (US Books)

The *horror aequi* principle is thus observed in the majority of the cases where it is salient: in 35 out of 41 it is, and only in six it is not.

It is of further interest here to examine the two constellations where the *horror aequi* principle comes into play. The first of these concerns those cases where *commit* has the form *committing*, where the expected form of the complement is of course the *to* infinitive. The occurrence of *to -ing* complements in this case would be qualitative evidence for the consolidation of this pattern with the verb, in the face of the *horror aequi* principle.

In the US Spok Corpus, there are only four tokens of the verb form *committing* followed by a sentential complement. In three of these, the complement is duly of the *to* infinitive form, as in (19a), but in the remaining case, given as (19b), it is of the *to -ing* type.

(19) (a) ... they're going to have to dramatically reduce their emissions of toxics and other chemicals in the United States, in some cases, committing to go beyond our EPA standards and ... (US Spok)
(b) In fact, had we just been a signator to the words as you saw in front of you, could be interpreted that what we're doing is committing to going out of business. (US Spok)

In the US Books Corpus, there are only three instances of the verb form *committing* selecting a sentential complement, and they are all of the *to* infinitive type, in accordance with the *horror aequi* principle. However, the US News Corpus offers nine salient tokens in which the *horror aequi* principle comes into play. In seven of the nine the principle is observed, illustrated by (20). However, in two cases, given as (21a–b), it is not observed.

(20) [a name] hasn't been told of any deadline for committing to play in the British Open. (US News)

(21) (a) Committing to going carless has had a price. (US News)
(b) The other great news about modern digicams is that most of the big-name manufacturers are now committing to selling photographic-quality digicams at the same rough cost as 35mm point-and-shoots. (US News)

The other context that should be investigated is of course that of *to commit*, which is obviously expected to favor the *to -ing* pattern. In the US Spok and US Books text types, numbers are low, but in the US News text type there are 12 tokens of this type. In 9 of them, the complement is of the *to -ing* type, in accordance with the *horror aequi* principle, but there are 3 exceptions. The exceptions are given in (22a–c):

(22) (a) ... [a name] is accused of attempting to obtain federal grants from the U.S. Agriculture Department for the venture; trying to get the U.S. Navy to commit to buy oil from the business, and using [a name]'s office to try to get $35 million from the U.S. Agency for International Development. (US News)
(b) "You advised us that Expedia was unwilling to commit to display Northwest's products in an unbiased manner, ... " (US News)
(c) I realized I would either have to commit to stay through [contract negotiations], which would mean I would stay through the end of 2004–05, or get out early enough so that ... (US News)

Besides being exceptions to the *horror aequi* principle, (22a) and (22c) are also among the six tokens in the American English data where a *to* infinitive is found even in an obligational context. An appeal to a formal promise seems relevant to (22a), and perhaps to (22c), in view of the references to contracts.

The present discussion shows that the *horror aequi* principle is often observed when it comes into play in sentential complements of *commit*. However, there are exceptions, and these are in favor not only of *to -ing* complements, but also of *to* infinitive complements.

Overall, the verb *commit* is much more frequent with sentential complements in American English than in British English, and the proportion of *to -ing* complements is somewhat higher in American English than in British English. Even so, there are also plentiful tokens of *to* infinitive complements found in American English, and there does not seem to be any one single factor that would be decisive in determining the choice of variant. As regards semantic factors, there is a tendency for the complement to be of the *to -ing* type in obligational contexts, but there are exceptions to this tendency. There is likewise a tendency to observe the *horror aequi* principle, but especially in the text type of newspapers exceptions are found, and the exceptions are not limited to favoring one type of complement. Under these circumstances, it can only be concluded that the "competition" between the two types of sentential complements is not over in American English at this time.

3 Summary and concluding observations

This chapter dealt with sentential complements of the intransitive verb *commit*. The usage in question is innovative. It is not found in the CEN. In the 1989 edition of the *OED*, the sense in question is recognized with *commit* when *commit* is used reflexively. The electronic edition recognizes the non-reflexive and intransitive usage as a sense added in 2002, but does not provide illustrations of the sense with sentential complements. Yet such complements are found easily enough in current English. At the same time, a transatlantic divide should be recognized in that the usage in question is much more frequent in current American English than in British English.

As regards the form of sentential complements with the verb, *to -ing* complements were found to be more numerous with *commit* than *to* infinitives in both British and American English. Further, it was observed that the predominance was somewhat more marked in American

English than in British English. However, even in American English, sizeable numbers of *to* infinitive complements were encountered.

Given the variation between the two types, an attempt was made to identify semantic or nonsemantic differences between the two patterns, taking the sense of *commit* into account. Building on the comments on the adjective *accustomed* in Chapter 6 and on the verb *object* in Chapter 7, it was proposed as a possible line of investigation that a *to* infinitive complement may carry a sense of choice on the part of the person entering into a commitment and that a *to* infinitive may express a formal and a specific commitment. For its part, a *to -ing* complement is especially likely in what was termed an obligational context. While there are exceptions to these suggestions, they received some support from the more plentiful American English data.

It may be predicted on the basis of the Great Complement Shift that the *to -ing* pattern may win the day over *to* infinitival complements. However, this is not a foregone conclusion. It may also be speculated that the influence of the verb *promise* may be a factor impacting the complement selection of *commit*. *Promise* is of course a prototypical verb expressing the notion of undertaking an obligation to perform some action, and it is very frequent with *to* infinitives, as in *promise to do something*. However, it is inconceivable with the *to -ing* pattern, as witness the ill-formedness of **promise to doing something*. The model of *promise* may be exerting an influence protecting the *to* infinitive pattern even with *commit*, because of the semantic similarity of the two verbs, even in the face of the Great Complement Shift. Naturally, it will be of great interest for someone to provide an update of the complement selection properties of *commit* in 20 or 30 years' time.

9
Concluding Observations

The studies in this volume focused on the system of English predicate complementation. The studies were based on two approaches. In Chapters 2 through 5, the approach was pattern based. This means that the investigator chooses some grammatical pattern as a point of departure, and then examines the pattern in relation to the matrix verbs, adjectives, or nouns that select it. In Chapters 6 through 8, the approach was head-based. In this approach, the investigator chooses a particular matrix verb, adjective, or noun, or a particular group of such verbs, adjectives, or nouns, and then examines the item or items selected in relation to the types of complements that are relevant.

In the pattern-based part of the book, two patterns were investigated, the transitive *into -ing* pattern and the transitive *out of -ing* pattern. The three chapters devoted to the former, Chapters 2 through 4, testify to the remarkable vitality of the pattern in present-day English.

Chapter 2 provided an overview of the transitive *into -ing* pattern and of its evolution in recent English. Four corpora were consulted. These were two segments of the Corpus of English Novels, the CEN, one of British English and the other American English, and the British and American Books segments of the Collins Cobuild Demonstration Corpus. These corpora resemble each other in text type and make it possible to follow the evolution of the transitive *into -ing* pattern in recent English.

It was argued in Chapter 2 that the theory of construction grammar as developed by Adele Goldberg offers a suitable theoretical framework for analyzing innovative matrix verbs selecting the transitive *into -ing* pattern. There are two subevents expressed in the sentences in question, the constructional subevent and the verbal subevent, and meaning of the sentence is more than a mere conjunction of the two subevents: crucially, the verbal subevent names the "MEANS by which

the constructional subevent takes place" (Goldberg and Jackendoff 2004, 518). The chapter motivated the proposal that the pattern should be viewed as a type of the caused motion construction.

Chapter 3 offered an investigation of verbs that are innovative on the basis of five large corpora, including three corpora of over 50 million words each. These are the British English and American English Books corpora and the British English Magazines corpus.

The question of what counts as innovative was decided using the general principle that when a relevant usage of the matrix verb in question is included in a standard work of reference, it does not qualify as innovative. Among the standard works of reference, the *OED* naturally has pride of place, and the other sources drawn on when decisions were made on innovativeness were the more specialized studies of Bridgeman et al. (1965) and Francis et al. (1996).

Despite the comprehensive nature of the *OED,* it was found that the transitive *into -ing* pattern occurs with numerous matrix verbs in current English that are not featured with the pattern in the works of reference consulted. Such verbs were examined in both British and American English. It was also argued that the theory of construction grammar as developed by Adele Goldberg offers a suitable theoretical framework for analyzing innovative matrix verbs selecting the transitive *into -ing* pattern.

Distinct syntactic classes emerged among the innovative verbs. There are three arguments involved in the transitive *into -ing* pattern, and some of the verbs in question have uses independently of the transitive *into -ing* pattern, similarly to the *into -ing* pattern. In such cases, the alternative pattern is the *to* infinitive pattern. *Incentivize* is a case in point. Another class of innovative verbs was characterized by the property of having established uses with two arguments. For instance, the verb *ridicule* is commonly found in such uses, as in *He ridiculed them*. However, it is also found with a transitive *into -ing* complement, of the type *He ridiculed them into keeping their memories to themselves*. Here, the third argument has the semantic role of Goal, and it is supplied by the construction. It is thus possible to say that the verb *ridicule* retains its own normal meaning in the sentence, and that part of the meaning of the sentence is an amalgam of the meanings of the verb and of the construction.

The analysis drawing on Adele Goldberg's work is suitable for such innovative verbs. Once a verb becomes established with *into -ing* complements and is recorded, for instance, in the *OED*, the resultative meaning is apt to be accorded a separate sense. This has happened, for

instance, with the verb *betray*. It may be speculated that some of the verbs identified in Chapter 3 are well on their way to becoming established with the transitive *into -ing* pattern in the language. Verbs that occurred fairly frequently are good candidates for this process. *Terrorize* and *startle* may be mentioned as examples.

There is an additional point emphasizing the usefulness of construction grammar in the analysis of innovative verbs selecting the transitive *into -ing* pattern. It was observed that the pattern is found with the verb *Tillerize*. This is a highly context-specific coinage, and as such it is most unlikely ever to be recorded in a dictionary. It is possible even to hold the view that it does not belong in a dictionary. However, when the verb is found with the transitive *into -ing* pattern, *Tillerize someone into doing something*, it makes immediate sense, in accordance with the way that the pattern is interpreted as a construction, along the lines "cause someone to move into doing something by means of making them behave in accordance with the practices characteristic of the Tiller organization."

When the transitive *into -ing* pattern is analyzed as a construction and the verbal subevent is linked to the expression of the means by which the constructional subevent takes place, it is natural to analyze the different matrix verbs into semantic classes that express different types of means. Different semantic classes were found among the innovative verbs, with verbs expressing force or pressure and those expressing fear or perplexity being well represented among them.

Chapter 4 turned to a class of matrix verbs selecting the transitive *into -ing* pattern that is rather special because the matrix verb is relatively neutral or unspecific with respect to the means by which the constructional subevent comes about. Seven such verbs were examined, with all of them selecting three arguments independently of the transitive *into -ing* pattern. The arguments in the independently selected three-argument structures were seen to have semantic roles that are similar to the semantic roles when the verbs select the transitive *into -ing* pattern. In such other three-argument structures, the Goal arguments are realized by *to* infinitive complements, and the usage with the transitive *into -ing* pattern may be seen as a rival to the *to* infinitive pattern. The two patterns are similar in meaning in that both express accomplishment, but there is also a subtle semantic difference between them. It was suggested in the chapter that the emerging usage with the neutral verbs represents a manifestation of an important aspect of the Great Complement Shift.

Four of the seven verbs were found to occur with the transitive *into -ing* pattern with some frequency. It was argued that these verbs

were not necessarily associated with any negative semantic flavor in their contexts.

After the abundance of different matrix verbs selecting the transitive *into -ing* pattern, the transitive *out of -ing* pattern, investigated in Chapter 5, produces only a handful of such verbs.

The preposition *into* and the complex preposition *out of* are similar in being associated with the expression of a physical or metaphorical location, but *into* may be viewed as Goal oriented, while *out of* may be viewed as Source oriented. It was naturally of interest in Chapter 5 to raise the question of whether the verbs that were found with the transitive into *-ing* pattern might also select the transitive *out of -ing* pattern. This question is of interest whether or not the latter pattern is innovative. Several of the verbs in question were likewise found with the transitive *out of -ing* pattern, including *charm*, *frighten*, *intimidate*, *scare*, *shame*, and *talk*. However, many of the verbs selecting the transitive *into -ing* pattern were not found with the transitive *out of -ing* pattern. It may be suggested that at least some of these verbs are Goal oriented, rather than Source oriented, with *influence* and *stimulate* being cases in point. It appears in the light of the present investigation that as regards matrix verbs selecting the three arguments of Agent, Patient, and Location in a caused motion construction in English, it is more common for the matrix verb to be Goal oriented than Source oriented.

Chapter 6 turned to the head-based approach in the study of grammatical variation and change. The adjective *accustomed* offers rich material for investigation, being a relatively frequent adjective often found with complements. The focus of the chapter was on sentential complements involving subject control, and it was shown how such complements were almost invariably of the *to* infinitive type in the eighteenth and early nineteenth centuries. However, it was argued that the years around 1900 were a first important turning point in the history of the adjective. The Corpus of English Novels is restricted to one text type, but it still demonstrated how the *to -ing* pattern was in the process of establishing itself as a rival to the *to* infinitive pattern during the period covered by the corpus, and had succeeded in doing so by 1922. The overall change should be seen in the context of the Great Complement Shift, and of the overall drift of the *to* infinitive from a nominal to a more verbal or sentential character. For its part, the *to -ing* pattern, while a sentential type of complement, is at the more nominal end of sentential complements in English, and it was natural for it to emerge as a rival in the case of *accustomed*, given the abundance of non-sentential *to* NP complements that the adjective has selected for centuries.

The progress of the Great Complement Shift was examined with respect to the adjective in both British and American English. It turned out that the overall proportion of *to -ing* complements in relation to *to* infinitive complements was higher in the American English part of the CEN than in the British English part, suggesting a colonial lead in the adoption and the spread of the new pattern. This had also been suggested by data from earlier in the nineteenth century.

In addition to the larger picture, the CEN also makes it possible to explore the potential impact of some more specific factors that may have had an impact on the progress of the Great Complement Shift. Extractions have emerged as one such factor: since *to* infinitival complements are more sentential in nature than *to -ing* complements, extractions tend to be easier to perform in the case of the former than in that of the latter. It was indeed seen how *to -ing* complements were extremely rare in extraction contexts, with the one example that did occur being found in American English.

A proposal was also made in Chapter 6 to modify the definition of extractions found in earlier corpus-based work on the history of the system of English predicate complementation. Vosberg (2003a) had defined extractions as applying to complements of subordinate clauses only. However, it was suggested that the extraction of adjuncts also deserves attention. Such extractions of adjuncts, for instance of adjuncts of place and time, are encountered in the CEN. With respect to extractions, it was also found that Relativization was the most frequent rule triggering extraction by a long way. Other types encountered included Comparativization.

In Chapter 6, it was also suggested that it is worth investigating the semantic role of the lower subject as a potential factor affecting the choice of the complement. A *to -ing* complement may be favored in contexts where the lower subject has the semantic role of Patient.

While the *to -ing* pattern was seen to be establishing itself as a rival to the *to* infinitive with *accustomed* during the period 1880–1922, it is in the *TIME* Corpus where a considerable amount of variation and a radical change can be documented. The 1930s, 1940s, and 1950s were investigated in Chapter 6. The 1930s turned out to be a period when particularly large numbers of both types of complement were found, and the proportions of them were roughly equal. The decade therefore affords a good opportunity for investigating the principles governing variation. Apart from the Extraction Principle, the focus in the section was on the semantic distinction between [+Choice] and [–Choice] lower predicates and subjects. This distinction, it was

argued, may be developed in relation to agentivity, and the emerging *to -ing* pattern was associated with [–Choice] readings at the time when both that pattern and the *to* infinitive pattern were frequent. It was argued that both the Extraction Principle and the semantic principle shed light on variation between the two alternants and that what may at first sight appear to be random variation is in fact rule governed to a significant extent.

A further study of the *TIME* Corpus also shows that the frequency of *to* infinitive complements declines sharply in the 1940s. The frequency of *to -ing* complements remains fairly constant throughout the three decades, and this means that when the two competing alternants are compared, the proportion of *to* infinitives also declines sharply. The period of World War II has previously been linked to phonological change, and the present study invites further work on grammatical change in the 1940s.

Chapter 7 examined sentential complements of the matrix verb *object* that involve subject control. Today such complements are almost invariably of the *to -ing* form. The Old Bailey Corpus is a large corpus. It consists of trial transcripts, and can therefore offer a window for studying at least an approximation of spoken British English. For this study, two segments were selected, the 1820s and 1830s, on the one hand, and the period from the 1880s to 1913. It was observed that in the early data, *to* infinitives are clearly more frequent than *to -ing* complements with *object*. As for the later segment, *to* infinitives still continue to be more frequent, but there are also sizeable numbers of *to -ing* complements found, and in the first decade of the twentieth century, the proportions of the two types are roughly equal. This state of affairs affords a good opportunity to explore further the explanatory principles identified in the study of the adjective *accustomed* in Chapter 6. Extractions tend to be low with *object*, but the data from the Old Bailey Corpus provide support for the semantic distinction between [+Choice] and [–Choice] predicates.

Chapter 8 examined sentential complements of *commit oneself* and of *commit* that involve subject control, with the focus on the intransitive variant. *Commit oneself* is found in the CEN with *to* infinitives, but not with *to -ing* complements. On the other hand, the non-reflexive variant is not found in the CEN with sentential complements involving subject control. In present-day English, the intransitive *commit* is found with such complements. The usage is encountered in both British and American English, but it is much more frequent in American English than in British English.

As regards the form of such complements, both *to* infinitives and *to -ing* complements are found in both British English and American English. In the British English corpora, the two varieties appear to be equally frequent, approximately, or there tends to be a preference for *to -ing* complements. In American English, the corpus evidence considered suggests that there is a more definite preference for *to -ing* complements in relation to *to* infinitives. However, even in American English there is variation encountered with respect to the two types of complement. Extractions are very rare out of complements of *commit*, but it was suggested in Chapter 8 that the *horror aequi* principle is at least sometimes operative and has an effect on complement choice in the case of the non-reflexive verb *commit* in present-day English.

The evidence of *commit* suggests that the *to -ing* pattern has gained a foothold in current English with verbs expressing intention that is communicated. The [+/–Choice] distinction developed in Chapter 6 on the basis of the complements of the adjective *accustomed* and in Chapter 7 on the basis of the complements of the verb *object* was considered in Chapter 8 as a principle for explaining variation between *to* infinitive and *to -ing* complements, but it was argued that because of the relevant sense of *commit*, the distinction should be applied in modified form to this verb, and a distinction was made between an obligational and non-obligational context. It was suggested that the *to -ing* pattern is especially linked to what were called obligational contexts, where an external force or influence acts on the will of the referent of the person making a commitment, and that the *to* infinitive pattern tends to go with a non-obligational context. The intransitive use of *commit* with sentential complements is quite rare in British English, and the findings were only suggestive in that regional variety as regards the semantic distinction. However, the intransitive use of the verb is much more frequent with sentential complements in American English, and a statistically significant case for a semantic distinction can be made for American English.

Overall, this book has revealed a considerable amount of change and variation in recent English affecting the system of predicate complementation, and it has sought to identify factors that may influence such variation and change. One factor to emerge is extraction. Admittedly, higher predicates vary as regards the frequency of extractions, but extraction can be used as a yard-stick of the progress of grammatical change, for instance, in the case of the complementation of *accustomed*.

The semantic differentiation of competing patterns is another factor influencing grammatical change and variation in English. Such

differentiation is to be expected, taking Bolinger's Generalization into account, but it is a separate task to characterize the competing variants. The two variants that were focused on in Chapters 6 through 8 are the *to* infinitive and to *to -ing* complement, and in each of the chapters it was possible to investigate the variants at a time when both were fairly frequent in the corpora. The present study suggests an association of the *to* infinitive with a [+Choice] lower predicate, and an association of the *to -ing* pattern with a [–Choice] lower predicate. This was motivated in Chapters 6 and 7, and the obligational versus non-obligational distinction in Chapter 8 is consistent with these associations. However, the associations can be – and are – unstable in the sense that a process of diachronic change may lead to the predominance of one pattern at the expense of the other, and in that case it is hard to establish the associations any longer.

The present book naturally invites follow-up work in a number of areas. As regards the pattern-based chapters, one question that deserves further investigation concerns the reason or reasons for the relative rarity of the transitive *out of -ing* pattern. As regards the alternation between *to* infinitives and *to -ing* complements, it will of course be of interest to examine other predicates – verbs, adjectives, even nouns – that have made a transition from *to* infinitives to *to -ing* complements in the manner of *accustomed* and *object*, and to raise the question of whether the Extraction Principle and the semantic distinctions identified here may shed light on their analysis or whether they should be developed further, or maybe replaced by other principles. More broadly, it may be hoped that the present book will stimulate further work on variation and change affecting the system of English predicate complementation.

Notes

1 Introduction

1. For a fuller discussion of the attractions of corpus data and of caveats that should be borne in mind, see Lindquist (2009, 9–10).
2. Since the Bank of English Corpus is a monitor corpus, its composition changes as it is updated. It is worth noting that, with the exception of Chapter 6, the searches in the Bank of English Corpus for the present book were conducted during 2005–2008. (In the case of Chapter 6, the searches in the Bank of English Corpus were conducted in 2003/2004.) Today the corpus is known as the WordbanksOnline corpus.
3. Source information on authentic sentences from the various electronic corpora used is in accordance with what is customary in the case of each corpus.

2 On a Class of Resultatives in Recent English

1. While the Sag and Pollard (1991) analysis is helpful and the notion of influencing is in general central to understanding the character of object control, there does exist a class of matrix verbs involving object control in English which is of a different nature. The class was originally pointed out in Rudanko (1998b), though it has generally been ignored in the literature. For instance, consider a verb such as *credit* in (i), from the Brown Corpus:

   (i) Local authorities credited the men with saving the girl's life. (Brown A24 190–191)

   Credit in (i) involves object control, but the notion of influencing does not seem relevant to its interpretation. Instead, as proposed in Rudanko (1998b), it is more appropriate to appeal, in the case of *credit*, to a notion of "ascription" or "attribution." For a discussion, see Rudanko (1998b, 108 f.)
2. Adele Goldberg's model of construction grammar is not the only model of construction grammar in existence. (For a somewhat different approach, see Kay 2005.) However, it is a fully developed model, well presented in Goldberg (1995) and (2005). It continues to be the most prominent model of construction grammar today, and it is suitable to the study of argument structure. It seems appropriate to focus on it for the present project.
3. References to the *OED* here and generally elsewhere are to the second edition, from 1989. References where deemed appropriate are to the *OED Online* edition (from 2007).

3 Innovative Resultatives in British and American English

1. The finding that innovative matrix verbs expressing force or pressure are especially common in American English is of additional interest in view of

Wulff et al. (2007). There are obvious differences in approach between their study and the present investigation. Their study, using data from the *Guardian* for British English and the *Los Angeles Times* for American English, did not focus on innovative matrix verbs selecting the transitive *into -ing* pattern as they have been defined here, and instead the authors identified matrix verbs that are found with a higher frequency with what is here called the transitive *into -ing* pattern in British or American English, arguing that matrix verbs expressing physical force were more characteristic of British English than of American English. While the differences in approach between the two studies should be kept in mind, the present findings emphasize the need for more work, from different points of view, on the semantic characterization of matrix predicates selecting the transitive *into -ing* pattern in the two regional varieties.

4 Emergent Alternation in Complement Selection: The Spread of the Transitive *into -ing* Construction to Verbs of Unflavored Causation

1. In spite of the specific nature of the search string, not all results were of the right type. For instance, sometimes the *to* infinitival clause is part of a NP, rather than being dependent on the verb, as in (ii):

   (ii) Young Manuel, aged 18, spent some time studying at the London School of Economics where he came to know Professor Harold Laski, who crucially influenced his decision to become a Communist. (BrN)

   However, the large majority of the results in each corpus are relevant and there is no evidence to suggest that irrelevant examples are clustered in any one particular corpus, and for this reason it is possible to cite the raw numbers and the normalized frequencies as in Table 4.2.
2. In the case of *induce,* the *OED* does mention *into* as a possible preposition selected by the verb, providing an illustration with an *into* NP complement from 1532, but marks the usage as obsolete. On the other hand, it should be noted that Klein (1982), in a study based on the elicitation method, includes *lead* and *prompt* as selecting what is here called the transitive *into -ing* pattern.
3. While the transitive *into -ing* pattern can be substantiated with manner-neutral matrix verbs, it appears from the examples that there is considerable variety with respect to the choice of the lower verb with manner-neutral matrix verbs, and it may be difficult to establish such connections between matrix verbs and the lower verbs occurring with them as have been observed for verbs of flavored or manner-specific causation in the literature (see Rudanko 2000, 79 f., 84; Gries and Stefanowitsch 2003). It may be that the very manner neutrality of the matrix verbs in question may make such connections less likely, but more research into this question will be needed, when even larger corpora become available.
4. For a study of the different constellations that may arise in this context, see Mair (2002).

5 Tracking and Explaining the Transitive *out of -ing* Pattern in Recent and Current English

1. Viewing *out of* as a preposition raises some questions. First, the *of* part may be absent, as in *He walked out the door*, where the NP denotes an aperture (Lindstromberg 1997, 33). Second, as Huddleston and Pullum note, where the "following NP is omitted the *of* must drop too: *They came out of the building* or *They came out*" (Huddleston and Pullum 2002, 625). However, in sentence (1) in the text, with the matrix verb *talk*, the string that follows *out* cannot be omitted, and the prepositional analysis used for the study of argument structure by Francis et al. (1997, 412) seems appropriate here. This is also supported by the similarity of the pattern under discussion here with the transitive *into -ing* pattern from the point of view of argument structure, as in *The officials talked her into withdrawing her account*.

6 Watching English Grammar Change: Variation and Change in the Grammar of *Accustomed*

1. The judgments represented by the stars in (3–4) seem reasonable for most speakers, but it may be observed as a curiosity that if one carries out a search for *addicted+to+*VB in the Bank of English Corpus, there are a fair number of hits. Typical examples include (iiia–b) below:

   (iii) (a) The term "workaholic" has been used to describe people addicted to work.
   (b) Sing along to all your favourites including Addicted to Love, Great Balls Of Fire, Girls Just Want To Have Fun, Candle In The Wind, . . .

   However, the examples, as in (iiia–b), should be interpreted as containing *to* NP complements and they are simply indicative of the occasional unreliability of tags in electronic corpora.
2. Vosberg (2003b) formulates an even more restrictive view of the Extraction Principle when he refers to "environments where the object of the dependent verb is extracted," since the notion of complement is broader than that of object. As a consequence, the modification or broadening of the principle proposed here represents a bigger change in relation to Vosberg (2003b) than to Vosberg (2003a). On the other hand, as pointed out by an anonymous referee, the broader interpretation of extractions is also hinted at or mentioned in Vosberg (2003c,523), Vosberg (2006,63–67), and Rohdenburg (2006).
3. It may be observed that some sentences involving extraction may be easier to process than others. Of all the extraction structures illustrated, it appears that it is the Topicalization of an adjunct out of a complement of *accustomed* that is the easiest to process. Sentence (44b) is an example. There is no doubt that the initial adjunct of (44b) is linked to a gap in the complement of *accustomed*. However, the sentence is easier to process than the corresponding sentence (43a), where a complement has been extracted out of a complement of *accustomed*. Put differently, there is more of a sense of dislocation in the case of (43a) than in (44b). In contrast, the extractions involving Relativization, whether of complements or adjuncts, involve a fairly strong sense of dislocation. One factor involved is probably that, in general, adjuncts are easier to move around

than complements. These remarks about comparing the two types of extraction, while left at an informal level here, invite further work on a potential difference between extraction rules from the point of view of processing.

4. Further support for the association of a [+Choice] lower subject and an agentive semantic role is easy to find. As early as 1967, Jeffrey Gruber observed that an "agentive verb is one whose subject refers to an animate object which is thought of as the willful source or agent of the activity described in the sentence" (Gruber 1967, 943). Ray Jackendoff set up an elaborate schema of two tiers, a "*thematic tier* dealing with motion and location, and an *action tier* dealing with Actor-Patient relations" (Jackendoff 1990, 126; emphasis in original), and when he summed up his discussion of the notion of agent, he identified "three semi-autonomous parts." These were "doer of action," "volitional Actor," and "extrinsic instigator" (Jackendoff 1990, 129). More recently, Marianne Hundt (2004, 49) invoked "volition, control, and responsibility" as the defining characteristics of agentivity.
5. On viewing *see* as a non-agentive verb in uses that are similar to those discussed in the text, see Gruber (1967, 943), who contrasts it with the verb *look*, which is typically agentive. Compare also Taylor's (2003, 30–31) comments on *see* and *look* from the point of view of the notion of choice.
6. As in the section on the 1930s, sentences involving extraction are excluded from the table. This decision was made for the sake of consistency. All sentences involving extraction have [+Choice] lower predicates, with one exception, which is sentence (52b), which has a *to -ing* complement. If the seven sentences with extraction had been included in Table 6.10, the number of [+Choice] *to* infinitives would have been 21 (instead of 19), that of [+Choice] *to -ing* complements 43 (instead of 39), and that of [–Choice] *to -ing* complements 10 (instead of 9). In other words, if these tokens were taken into account, the frequency of the *to -ing* pattern with [+Choice] lower predicates would go up even further.
7. Setting extractions aside in the study of the [+/–Choice] lower subjects preserves consistency with earlier sections, but it may be added that because the number of extractions is so low in the 1950s, including them here would make no difference to the point in the text.
8. As conceived by Rohdenburg (2004, 2006), the Great Complement Shift also involves several other changes in the system of English predicate complementation. These include "changes involving the rivalry of marked and unmarked infinitives," including the "erosion of the *to* infinitive with the (intransitively used) verb *help*," as in *He helped (to) establish this system* (Rohdenburg 2006, 144, Rohdenburg's example). Other changes involve dependent *wh*-clauses, for instance, as in *They gave us some advice (on/as to) how it should be done* (Rohdenburg's example, 144), which illustrates a case where the "preposition used in nominal complements has been extended to interrogative complements" (Rohdenburg 2006, 144).

7 On Sentential Complements of *Object*, with Evidence from the Old Bailey Corpus

1. Leech et al. (2009) refer to *accustomed to* as a superordinate predicate in the extract. However, it was argued above that there is a difference in the category

status of the two types of *to* as in (1a–b) and that they exhibit different syntactic behavior, and it is therefore questionable whether the *to* should be cited as part of the higher predicate. In this study higher predicates will therefore be cited without the following preposition *to* and without the following Aux *to*. Thus the matrix verb *object* is cited as *object*, not as *object to*. Another reason for this decision is that it is the head of the construction – whether it is the adjective *accustomed* or the verb *object* – that selects a certain type of sentential complement.

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