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Mental Spaces in Grammar

Conditional constructions

Barbara Dancygier and
Eve Sweetser

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MENTAL SPACES IN GRAMMAR

Conditional constructions have long fascinated linguists, grammarians, and philosophers. In this pioneering new study, Barbara Dancygier and Eve Sweetser offer a new descriptive framework for the study of conditionality, broadening the range of richly described conditional constructions. They explore theoretical issues such as the compositionality of constructional meaning, describing both the mental-space-building processes underlying conditional thinking, and the form–meaning relationship involved in expressing conditionality. Using a broad range of attested English conditional constructions, the book examines inter-constructional relationships. Within the framework of Mental Spaces Theory, shared parameters of meaning are shown to be relevant to conditional constructions generally, as well as to related temporal and causal constructions. This significant contribution to the field will be welcomed by a wide range of researchers in theoretical and cognitive linguistics.

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MENTAL SPACES IN GRAMMAR

CONDITIONAL CONSTRUCTIONS

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To the memory of our fathers,
who taught us about books, words, and other things that matter.

Contents

Acknowledgments

This book is like all books – it could not have happened by the authors' efforts alone. Many people and institutions have offered help, inspiration and support throughout the years it took for this project to materialize.

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Another major source of inspiration has been Charles Fillmore. His work on construction grammar and epistemic stance has been important to us both and in many ways we have continued building on what he taught us. We also owe a great deal to the community of Construction Grammar researchers. Our debt to Paul Kay's work on scalarity will be evident; he also provided some favorite examples. And Adele Goldberg's valuable book on constructions has been helpful in clarifying our own position. The work of the late Suzanne Fleischman was crucial to the development of our framework, but we will also remember her with deep affection and respect as a friend and colleague whose professional standards we can only try to approach. Elizabeth Closs Traugott has been both a scholarly inspiration and a supportive colleague throughout. Peter Harder generously read a late draft while in Berkeley in Fall 2003, and offered very helpful comments. And Michael Israel's thorough reading of an earlier draft yielded, as usual, most pertinent insights.

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On the home front, we thank Barbara's son Szymek, as well as the rest of our families, for a great deal of patience and forbearance.

Books are not just written these days – they are created with the help of rather demanding machines. Many strong-willed computers participated in the creation of this book, and they could only be made to cooperate smoothly by the expertise and patience of our husbands, Alex and Jacek, who agreed to act as our personal system administrators.

Finally, we owe our thanks to the marvellous writers whose ingenuity gave us examples that we've so much enjoyed analysing. Special thanks go to Dorothy L. Sayers, for her exceptional epistemic and counterfactual conditionals; to Anne Tyler, for her subtle embedded mental spaces, including the one with *even if* and *then*; to Sara Paretsky, for great colloquial usage and the award-winning metaspatial conditional; and to Neal Stephenson, for fictional and virtual present forms which produce truly fantastic conditionals.

Preface

This book has grown out of many years of both authors' fascination with conditionals and conditional meaning. Each of us independently embarked on her own *if*-project in the early 1980s; we met for the first time at the 1984 meeting of the LSA (Linguistic Society of America), and from that moment we were bouncing ideas off each other and finding more and more in common. Eve's work reached a larger audience in 1990, with the book version of her Ph.D. thesis, while Barbara's book came out in 1998, following a long series of articles. Both books contribute in crucial ways to what we now understand conditionals to be about. Eve's idea of cognitive domains and Barbara's concept of predictive versus non-predictive conditionality are still basic to the framework we present to the reader now.

By the time our individual projects were completed we were both very much aware of the questions which, in our shared understanding of a descriptively and theoretically satisfying framework, remained unanswered. We knew that more attention needed to be paid to the analysis of conditional meaning and usage which could transcend the boundaries of formally explicit categories such as *if*-sentences. At the same time we were convinced by our experience of the data that the goal could be achieved only by focusing consistently on the systematic correlations between form and meaning, rather than just on morphosyntax or on semantics and pragmatics. We found the necessary theoretical tools for constructing such a framework in two theories developed within cognitive linguistics: *Mental Spaces Theory* and *Construction Grammar*.

The present analysis is essentially distinct from our earlier independent projects, although building on them in important ways (hence the need to summarize briefly some of the major claims from our 1990 and 1998 books). The scope of this analysis reflects our decision to work on conditionality in all its forms, rather than on conditionals as such. At the same time, we wanted to rely entirely on attested data and, as it turned out, that decision alone brought some unexpected challenges and thrills. On the one hand, it was very rewarding to see the data fulfill our expectation, but on the other hand, it was infinitely

more rewarding to run into what seemed to be counterexamples to our claims, only to discover that such "exceptions" in fact support the theory even more convincingly than what we thought was the rule.

The book is also an attempt to use the Theory of Mental Spaces as the primary tool in building a coherent account of a very broad and complex area of linguistic usage. In the process, we test the theory's power in clearly distinguishing very subtle differences in meaning – and in accounting for complex textual data in context. We hope to have shown that the theory does all we needed it to do (plus much more), and that it is an approach which allows one to work on grammar at a new level of specificity and coherence. And finally, we wanted to flesh out our concept of constructional compositionality, as an instance of frame metonymy in grammar. The passage from *The Wind in the Willows* which opens the book perfectly exemplifies the elusive and context-dependent character of frame-metonymic relations, and yet their apparent inevitability (once they are evoked); these are characteristics which hold equally well for grammatical cases of such relations.

English conditional constructions provide an exceptional laboratory of interrelated constructions, of varying degrees of compositionality, and inheriting varying aspects of conventional form–meaning mappings from each other. We are convinced that the material we have gathered justifies the usefulness of this kind of overlapping understanding of constructional compositionality in analyzing broad areas of usage, and puts the concept in the grammarian's toolbox.

The reader looking through the index or the table of contents will find a number of terms and topics which we have talked about in our earlier work on conditionals. But the reader who browses through the text itself will soon realize that the book covers a much larger array of topics and a fuller range of data, defines many of the terms afresh, and offers a new, unified insight into the relationships between conditionality, mental spaces, and grammar.

Note on abbreviated citations

Most of the text examples cited throughout the book come from different published works of fiction and from periodicals. To avoid lengthy and repetitive referencing we shall be using abbreviated citations throughout the text. References to books will consist of the author's initials, the acronym for the title, and the page number. For example, the citation NS.SC.50 refers to page 50 of Neal Stephenson's *Snow Crash*. Full references for all works so cited will be found in the "Texts" section in the list of references. Examples taken from periodicals will be accompanied by full references. A number of our cited text examples are taken from a publicly accessible portion of the Modern English Collection of the University of Virginia Electronic Text Center. These references will consist of the author's name, the title of the work, followed by "U-Va Electronic Text Center". For example, Mark Twain, *Innocents Abroad*, U-Va Electronic Text Center. Publication history, page citations, and other information can be found on the Text Center's database.

The door-scraper in the Wild Wood: an informal lesson in frame metonymy

(From Chapter 3, *The Wind in the Willows*, 1908, by Kenneth Grahame)

[*The Rat and the Mole are lost in the Wild Wood on a snowy night. As they are slogging through the snow, the Mole cuts his leg. The Rat, intrigued, tries to find the object that hurt the Mole*]

Suddenly, the Rat cried "Hooray!" and then "Hooray-oo-ray-oo-ray-oo-ray!" and fell to executing a feeble jig in the snow.

"What *have* you found, Ratty?" asked the Mole, still nursing his leg.

"Come and see!" said the delighted Rat, as he jigged on.

The Mole hobbled up to the spot and had a good look.

"Well," he said at last, slowly, "I *see* it right enough. Seen the same sort of thing before, lots of times. Familiar object, I call it. A door-scraper! Well, what of it? Why dance jigs round a door-scraper?"

"But don't you see what it *means*, you – you dull-witted animal?" cried the Rat impatiently.

"Of course I see what it means," replied the Mole. "It simply means that some *very* careless and forgetful person has left his door-scraper lying about in the middle of the Wild Wood, *just* where it's *sure* to trip *everybody* up. Very thoughtless of him, I call it. When I get home I shall go and complain about it to – to somebody or other, see if I don't!"

"O dear! O dear!" cried the Rat, in despair at his obtuseness. "Here, stop arguing and come and scrape!" And he set to work again and made the snow fly in all directions around him.

After some further toil his efforts were rewarded, and a very shabby doormat lay exposed to view.

"There, what did I tell you?" exclaimed the Rat, in great triumph.

"Absolutely nothing whatever," replied the Mole, with perfect truthfulness. "Well now," he went on, "you seem to have found another piece of domestic litter, done for and thrown away, and I suppose you're perfectly happy. Better go ahead, and dance your jig round that if you've got to, and get it over, and

then perhaps we can go on and not waste any more time over rubbish heaps. Can we *eat* a doormat? Or sleep under a doormat? Or sit on a doormat and sledge home over the snow on it, you exasperating rodent?"

"Do-you-mean-to-say," cried the excited Rat, "that this doormat doesn't *tell* you anything?"

"Really, Rat," said the Mole quite pettishly, "I think we've had enough of this folly. Who ever heard of a doormat *telling* anyone anything? They simply don't do it. They are not that sort at all. Doormats know their place."

"Now look here, you – you thick-headed beast," replied the Rat, really angry, "this must stop. Not another word, but scrape – scrape and scratch and dig and hunt round, especially on the sides of the hummocks, if you want to sleep dry and warm tonight, for it's our last chance!"

The Rat attacked a snow-bank beside them with ardour, probing with his cudgel everywhere and then digging with fury; and the Mole scraped busily too, more to oblige the Rat than for any other reason, for his opinion was that his friend was getting light-headed.

Some ten minutes' hard work, and the point of the Rat's cudgel struck something that sounded hollow. He worked till he could get a paw through and feel; then called the Mole to come and help him. Hard at it went the two animals, till at last the result of their labours stood full in view of the astonished and hitherto incredulous Mole.

In the side of what seemed to be a snow-bank stood a solid-looking little door, painted a dark green. An iron bell-pull hung by the side, and below it, on a small brass plate, neatly engraved in square capital letters, they could read by the aid of moonlight:

MR BADGER

The Mole fell backwards on the snow from sheer surprise and delight. "Rat!" he cried in penitence, "you're a wonder! A real wonder, that's what you are. I see it all now! You argued it out, step by step, in that wise head of yours, from the very moment I fell and cut my shin, and you looked at the cut, and at once your majestic mind said to itself, 'Door-scraper!' And you turned to and found the very door-scraper that done it! Did you stop there? No. Some people would have been satisfied; but not you. Your intellect went on working. 'Let me only just find a doormat,' says you to yourself, 'and my theory is proved!' And of course you found your doormat. You're so clever, I believe you could find anything you liked. 'Now,' says you, 'that door exists, as plain as if I saw it. There's nothing else remains to be done but to find it!' Well, I've read about that sort of thing in books, but I've never come across it before in real life. You

ought to go where you'll be properly appreciated. You're simply wasted here, among us fellows. If I only had your head, Ratty –"

"But as you haven't," interrupted the Rat rather unkindly, "I suppose you're going to sit on the snow all night and *talk*? Get up at once and hang on that bell-pull you see there, and ring hard, as hard as you can, while I hammer!"

While the Rat attacked the door with his stick, the Mole sprang up at the bell-pull, clutched it and swung there, both his feet well off the ground, and from quite a long way off they could hear a deep-toned bell respond.

1 *Conditional constructions, mental spaces, and semantic compositionality*

> "It makes me feel like I'm going to cry," she said. "I can just imagine if it was my daughter." (*Vancouver Sun*, Oct. 4, 2000)
>
> [A woman comments on a reported case where a man assaulted a sleeping girl.]

Readers of the *Vancouver Sun* did not sit back and wonder what the speaker thought would have happened "if" her daughter had been the victim of such an assault. She did not have to present a *then* clause and describe the consequences explicitly. Not only were her actual hearers, and the eventual readers of the paper, able to build up the intended counterfactual situation (marked by the verb *was*); they were also presumably able to envision the likely emotional results on a victim's family. Furthermore, they surely recognized that the woman was not primarily expressing specific fear about her own daughter's safety, but empathy with the real-world victim and her mother. How did they do all this, prompted apparently only by the set-up of a situation where the speaker's daughter was imagined to be an assault victim?

1.1 Conditionals and conditional reasoning

There is something about *if* which engages the curiosity of the analyst. And rightly so: not only is the kind of reasoning manifested in a form such as *imagine if it was my daughter* an important aspect of human thought, but it also seems *uniquely* human to imagine in such detail scenarios which may be unreal and perhaps impossible (the speaker need not necessarily have a daughter in actuality), and to reason from them. In this example, the speaker seems to go further than conventional inference and "reasoning"; she presumably "feels like she's going to cry" because in imagining the effects on her life if she had a daughter who was assaulted in this way, she vividly feels and lives the emotions of this tragic counterfactual world.

Philosophers have long focused on conditional constructions as manifestations of human logical reasoning. Examples such as this show how far conditional usage goes beyond logical inference. Psychologists, philosophers, and anyone who studies human reasoning should be interested in the unique and pervasive cognitive patterns displayed in conditionals.

Simultaneously, everyday usages such as the above quotation present puzzles for linguists and grammarians. Are we to assume that the *if*-clause, *if it was my daughter*, is to be understood as having an unexpressed consequent as part of its interpretation, something on the order of *I can just imagine how I would feel if it was my daughter*? If so, what relation does this structure bear to grammatically conventional constructions where an *if* clause occurs independent of any syntactic consequent ("then") clause – for example, *What if it was my daughter?* What contribution to the conditional meaning is made by the choice of the verb form *was*, a "past" form which is being used here not to refer to past tense, but to the imaginary nature of the situation described? These problems exemplify the complex ways in which linguistic markers such as verb form, conjunction choice, and syntactic constructions such as the *what-if* construction, combine to prompt the cognitive construction of complex mental spaces.

Because English has a rich and varied set of options for marking causal and conditional relations, more and less explicitly, our expression of conditionality is of special interest also as a test case for examining formal and functional relations between constructions: for example, in what ways do *what-if* constructions resemble the broader class of conditionals, and in what ways are they distinct? More broadly, this investigation can become a laboratory for the examination of what it means for a larger construction, as opposed to a word or morpheme, to be meaningful, and how *compositional* such meaning is: i.e., how much of the semantics of *what-if* constructions is entirely predictable from their formal structure and the meanings of the components, and how much needs to be specified as particular to this construction.

Linguists, approaching the grammatical forms involved in encoding conditional reasoning, have generally found plenty of formal complexity to occupy them in *if–then* constructions and their crosslinguistic analogues; semanticists in particular have seen these forms as a central case in any theory of logical semantics which maps logical structures onto linguistic forms. In the last twenty-five years, speech-act theorists and pragmatics scholars have uncovered the uses of conditional forms in presenting speech acts, thus setting up a tradition which parallels the logical one and presents problems for it. (*If you don't mind, please pass the salt* does not seem to be about a relationship between truth values.) And some typologists have noted connections between conditional and

topic markers, and have suggested that *if*-clauses are functionally more topics than premises in many cases (see Haiman 1978, Traugott 1985, Jacobsen 1992, Schiffrin 1992a).

A truly satisfactory theory of conditional forms should bring together all these insights. Indeed, the human ability to reason in a contingent way is crucial to the uses of these linguistic constructions. How can this observation be integrated with the findings of speech-act analysts and typologists about less logical uses of conditionals? Or can it?

Linguists have even more reason than other scholars to await the answer to this question with interest. We presumably want to know about human reasoning, and about speech-act structure; but we also want to know how linguistic forms function in general. When we find that certain diverse functions are attached to a single formal construction (such as the English *if–then* construction), and that parallel diversity of function is common crosslinguistically, then such a class of constructions raises questions for linguistic theory in general. A constructional form may be simply homonymous; that is, the same form may have multiple unrelated functions (consider the synchronic relationship of the English definite article *the* with the homonymous, though historically related, form occurring in *The more, the merrier*). If a construction is in fact polysemous, we then need to investigate the motivation for the polysemy relationship – as, for example, Haiman (1978) has done in examining the link between the functions of conditional protases and topics. A great deal of recent research suggests that it is normal for larger constructions, as well as words and morphemes, to be polysemous (Bolinger 1977; Brugman 1984; 1988; Lakoff 1987; Langacker 1987, 1991a, b; Pederson 1991; Kemmer 1993; Hopper and Traugott 1993; Fillmore 1997 [1971]).[1] The polyfunctional status of conditional forms is thus a valuable laboratory for investigation of constructional polysemy in general.

The voluminous extant literature on conditionality and conditional constructions indicates the importance of these meanings and forms to a broad range of researchers, including linguists, philosophers, and grammarians. But this extensive corpus might make readers question the need for a new book on such an apparently over-documented subject. In fact, conditionality is far from fully documented: as with many subjects of strong interest to a scholarly community, certain examples and problems have been addressed in detail, while others – equally interesting, and perhaps helpful in illuminating the problems focused on – have been neglected or ignored. Even those analyses which attempt to look

[1] Further, it is via such polysemy that semantic change and grammaticalization occur; see Bybee and Pagliuca 1985, Hopper and Traugott 1993, among many others.

at expressions of conditionality in a broader range of forms (not just *if–then* sentences) fail to offer an explanation of the connections among those formally divergent constructions. This book will address whole classes of conditional uses which are ignored or marginalized in the standard literature, and describe this fuller range of conditional constructions within a uniform framework.

The linguistic literature has generally focused on a narrow range of conditional forms. The *If P, (then) Q* conditional in particular has largely eclipsed its neighbors in English, such as the use of *unless* and *since* in ways which are very close to carrying the same message as *If P, (then) Q* sentences – or even apparently coordinate constructions such as *Take another step and I'll shoot*. Formal differences among *if–(then)* constructions, such as the use or absence of *then*, comma intonation or continuous intonation, and even clause order, have also tended to remain unexamined. Descriptive grammarians have focused on the contrasting possibilities for the use of different verb forms, again often neglecting other issues. A recent comprehensive study of conditionals (Declerck and Reed 2001) offers the broadest description to date, documenting a variety of conditional uses (mainly with *if*, but also in other structures), but the classification offered relies primarily on semantic criteria, without attempting to link the meanings identified to the formal features of the constructions.[2] There has therefore been little attempt to examine correlations between these different parameters: how does the choice of a verb form correlate, for example, with the use of *then* or with the choice of comma intonation? Are there any formal features of paratactic constructions that explain their link with conditionality? We will argue that putting conditionals in the context of a range of related constructions allows such correlations to emerge and ultimately allows us to attribute particular aspects of the communicated message more precisely to particular aspects of the linguistic form. We also argue that a broader definition of conditionality can emerge only from the study of such correlations.

The philosophical literature and pragmatics literature, on the other hand, have focused on function, rather than defining conditionality in terms of form-classes. Both definitions have their problems. If a conditional is defined as an English *If P, (then) Q* construction, we have a definition which does not extend to semantically related constructions in English, and also leaves us with little chance of generalizing crosslinguistically. On the other hand, the widely

[2] Declerck and Reed's analysis relies entirely on corpus data and is thus a valuable resource for analysts interested in the variety of conditional usage. Its goals, however, are qualitatively different from ours, as no attempt is made to seek form–function correlations or to define the nature of conditionality as such. For a more detailed discussion of Declerck and Reed's book, see Dancygier's (2003) review article.

varying functions of the single formal construction may leave us wondering *which* functional definition to use in our circumscription of a "conditional" class of uses or meanings. So it is perhaps not surprising that philosophers have differing views about what constitutes "conditionality": can we define it in terms of a relationship between the truths of P and Q (the "conditional" clause and the main clause) and the truth of "If P, Q"? To what extent should we take causal relationships into account (many *If P, (then) Q* utterances seem to invoke such relationships between P and Q)? Is the truth of P and Q the central question, or should we rather be talking about some more pragmatic factor, such as whether it is appropriate (or relevant, or felicitous) to *assert* P or Q?

Implicit assumptions about the relations between form and meaning underlie both the linguistic and philosophical literature. Certain forms are considered more central representatives of conditional functions; others are implicitly seen as less central. Linguists with narrower formal categories of conditionality nonetheless do still see crosslinguistic parallels between functionally similar constructions as "conditionals," suggesting that they are including tacit functional criteria in their understanding.

We would like to explicitly address the issue of the form–meaning relationship. We will try to identify the precise aspects of any particular "conditional" construction which convey specific parts of the complex message carried by the use of that construction. Some aspects of the meaning may in fact be carried only by a particular *grouping* of formal elements, rather than by one element in itself. We will view the nebulous class of "conditionals" as part of a broad spectrum of other constructions which share certain of their formal and functional characteristics. For example, conditionals often manifest more general regularities about choice of verb forms, clause order, or intonational patterns. If we can attribute componential meaning contributions to particular formal parameters, we may be able to give a more motivated explanation of the functional similarities and differences between different conditional constructions. But in order to do so, we must examine a broad range of phenomena, rather than focusing on a few constructions in isolation. To explain how rather similar messages can be conveyed by *If you mow the lawn, I'll give you ten dollars* and by *Mow the lawn and I'll give you ten dollars*, or by *If you're too cold, I'll close the window* and *Since you're too cold, I'll close the window*, we need to examine a range of functionally and formally overlapping constructions, identifying co-varying aspects of form and function.

On the functional side, things are even more difficult. We are offered minimalist logical definitions of conditionality; but these do not seem helpful in examining natural language. Speakers are unlikely to accept, for example, that *If Paris is in France, the sky is blue* is logically "true" because its two constituents

are true. Other suggested functional definitions, such as the identification with topicality, seem too general; English subject noun phrases have been said to be topical, but subjects should not be functionally confused with conditionals. Perhaps the biggest problem is that analysts have focused on defining the boundaries of conditionality, without generally examining the category itself or its ties to related meanings. As a result, it is no exaggeration to claim that we simply lack a linguistically useful definition of conditionality.

We will present an analysis of conditional *meaning* which allows us to pick out aspects of that meaning and identify them as shared between constructions which may differ in other meaning parameters. Rather than trying to delimit rigid sets of conditionals and non-conditionals, we will examine the relationships among the various classes of meanings which have been called conditional, and between those meanings and others (e.g., causal, sequential, and concessive) which are linked to them and sometimes share formal means of expression with them. We will also try to map out the areas of predictability and compositionality in the uses of complex forms; does a particular verb form, or a chosen order of clauses, make the same contribution to meaning in, for example, related causal and conditional constructions?

Crucially, we maintain that it is easier to achieve an elegant formal and semantic analysis of conditional constructions when form and function are considered together, and in the context of the kinds of human reasoning in which speakers are engaged. Too narrow a delimitation of the cognitive processes involved (e.g., limiting them to logical truth-conditional meaning relations) will in fact prevent us from being able to make generalizations about the linguistic data. Luckily, available texts and overheard examples provide a wealth of small masterpieces of contextualized conditional reasoning, paired with speakers' and writers' formal choices in those contexts. We hope that our analyses of such examples will prove as relevant to readers primarily interested in language itself as to those whose main interests are in the cognitive processes involved. For the former, this book will put forward some descriptive generalizations not previously noted in grammatical descriptions of English, as well as some broader ones which may have possible crosslinguistic validity. As to the latter, we hope to convince them that close analysis of these rich linguistic data open new windows on the cognitive structures which underlie them.

1.2 Constructional meaning and compositionality

We take what is essentially a very old position, that linguistic form is linguistic because of a form-function mapping. We follow recent work in Cognitive Grammar and Construction Grammar in claiming that not only morphemes and

words but also grammatical constructions at the syntactic level are conventionally tied to semantic and pragmatic aspects of meaning. Functional grammarians, as well as cognitive ones, have a long tradition of setting out pragmatic as well as semantic correlates of particular grammatical constructions (topic constructions, for example). Non-truth-conditional aspects of meaning which are conventionally associated with form are treated in the same way as any other linguistically conventional form–meaning mapping. A topic marker's conventional meaning is to indicate topicality, rather than to add some "truth-conditional meaning" to the utterance; its semantics, in this broader sense, is its pragmatic function.[3]

Questions arise naturally in this framework which could not be posed in a more modular theory of language. Thus one can ask *how much* of the meaning of a construction is compositional, and how much needs to be attributed to the construction as a whole. Pragmatics, as well as semantics, can have varying degrees of compositionality – furthermore, if semantics and pragmatics have no tidy modular separation from each other, then the aspects of *meaning* which have been traditionally labeled pragmatic[4] will be treated as having the same possibilities for compositionality as the "semantic" aspects of meaning (see Sweetser 1999). We shall treat separately those aspects of interpretation which derive from a specific context rather than from linguistic convention. This is not because they are necessarily different in cognitive status from aspects of interpretation which are directly and conventionally prompted by linguistic form; on the contrary, there is good evidence that hearers and understanders do not differentiate well between aspects of meaning which are more directly linked to the speaker's form choices, and those which are less so. What we mean here is that in deciding whether something is part of the conventional meaning of a form, we will be assuming that such conventional meaning must not depend on some particular interactional context. However, the meaning conveyed *via* that conventional meaning will very probably depend on context to a considerable degree.[5]

[3] See Fillmore 1988, Fillmore, Kay, and O'Connor 1988, Goldberg 1995, Fillmore and Kay 1999, for exposition of the Construction Grammar framework; see also Croft 2001 on Radical Construction Grammar, and Talmy (2000) for related semantic work. Work in Cognitive Grammar, following Langacker (1987, 1991a, b), shares with Construction Grammar a number of basic assumptions: for example, that form–meaning mappings need to be described at all levels of the grammar, from the morpheme to lexically unspecified syntactic constructions. Functional work such as that of Prince (1978, 1985) has made parallel points about functions of constructions as well as of lexical-level forms.

[4] For background work on pragmatics, see Levinson 1983, Davis 1991.

[5] For the classic laying out of this kind of relation between context and interpretation, see Grice 1975, 1978; Coulson (2001) investigates some on-line reinterpretation processes of such framings.

Our analysis of meaning is framed in terms of Mental Spaces Theory (Fauconnier 1985 [1994], 1997), a very general formal theory which provides mechanisms for talking about cognitive structures and the connections between them. To some extent, traditional treatments of conditional semantics in terms of Possible Worlds have aimed at capturing similar insights: where some might say that an *if*-clause evokes a Possible World within which a *then*-clause holds, we would argue that an *if*-clause sets up a Mental Space which is the background for the construal of the *then*-clause. For example, in *If we leave it open it will be so hot* (AT.AT.138; a discussion of whether to leave a window open during an absence from home), the *if*-clause sets up a space wherein the window gets left open, and within that space, the speaker predicts that the room will get too hot.[6]

However, mental spaces represent a more general mechanism than possible worlds, referring not only to very partial cognitive "world" or "situation" constructions as well as to more complete ones, but also to a variety of non-world-like structures which can be connected and mapped onto other cognitive structures. For example, the two mental spaces consisting of a mental list of restaurant customers and a mental list of their orders are mapped onto each other to allow utterances such as *The ham sandwich wants his check now*, wherein the name of the food item ordered can be used to refer to the customer who placed that order. World-like structures are not the only consistent models which humans develop and interconnect.

Conditionals are not, of course, alone in setting up mental spaces: other constructions such as temporal clauses show quite parallel functions involving set-up of a background mental space, against which the contents of the main clause is understood. And sometimes another construction, such as apparently simple coordinate conjunction with *and*, can perform much the same function as an *if–then* construction. For example, in a scene from Neal Stephenson's *Snow Crash*, police who have arrested a teenage girl inform her that only for a fee will they take her to a safer, more comfortable, incarceration unit (called a Hoosegow, in this mythical world) rather than a much more unpleasant one. They say, *You pay us a trillion bucks and we'll take you to a Hoosegow* (NS.SC.50). This seems to convey much the same message as *If you pay us a trillion bucks, we'll take you to a Hoosegow*. Similarly, *Since I won't see you before Thursday,*

[6] Situation Semantics (Barwise and Perry 1983, Kamp 1984, see comments in Lakoff and Sweetser 1994) is responding to some of the same concerns which prompted the development of Mental Spaces Theory, allowing as it does more local structure and fewer demands for global consistency. But its basis in an objective truth-based semantics is strongly at variance with the claims of Mental Spaces Theory, which assumes that only experientially based construal – rather than objective truth – is accessible to human systems of meaning and interpretation.

have a good Thanksgiving! might be said in some of the same contexts as the attested *If I don't see you before Thursday, have a good Thanksgiving*!;[7] and *a true, if rather trite, observation* might be the same observation as one which was *true, though rather trite*. So the general observation that conditional *if*-clauses set up mental-space structure is only the beginning of an account of conditionality.

Our next step might be to differentiate between markers such as *when*, which seems to be making claims for the factuality of the space it sets up, and ones like *if*, which makes no such promises. The contribution of verb forms to the overall meaning is yet another factor: *If we left it open it would get so hot* (with future reference) treats the possibility of leaving the window open as an unlikely or dispreferred option. By contrast, *if we leave it open it will be so hot* (AT.AT.138), with its "present" and future verb forms, seems instead to remain neutral on this subject.

Local coherence is crucial to successful semantic interpretation: the parts of the construction must add up to a coherent whole. In the case of conditional constructions, one can see that certain combinations would be coherent and others less so: a construction which marks its mental-space set-up as true, or believed in by the speaker, will not be coherent with verb forms which express the speaker's doubt about such truth, while a neutral verb form will be coherent with a wider range of constructions. It is unsurprising, therefore, that English speakers find *When we leave the window open, it would get so hot* to be incoherent as a prediction about the future (see Fillmore 1990a, b; Dancygier 1998).

Language is not "economical" in the sense of minimal coding: a single aspect of meaning may be doubly or triply marked, in which case it may be difficult to tease out a particular formal element's contribution to the message. Sometimes we will be able to isolate a formal element and note its positive meaning contribution in the absence of its collaborators; but it is equally useful to note potential clashes as indicators of the conventional uses of formal elements. For example, an English speaker may not automatically have an intuition that there is much difference in meaning between an *if–then* conditional and the equivalent conditional without *then*. But the observation that *then* is unacceptable in *even if* conditionals (which contain *if*, and have much the same syntactic structure as *if–then* conditionals) is a good clue to the fact that *then* is contributing meaning, even if that meaning is not very noticeable in the context of some conditionals (Dancygier and Sweetser 1997, Chapter 6 of this book).

[7] This example was reported to us by Suzanne Fleischman.

Finally, a number of broad parameters of pragmatic interpretation are involved in the understanding of conditional constructions. Most of these parameters apply quite generally, not only to conditionals. They are available as part of the apparatus involved in constructing the interpretation of a conditional. For example, the function of supplying the background to a **prediction** (Dancygier 1993, 1998; Dancygier and Sweetser 1996, 1997) is filled by many conditional and temporal clauses, and the knowledge that such functions are commonly served by these forms is part of the framework required to explain their interpretation. Further pragmatically related functions, such as suggesting or commanding, may be related to the predictive function in crucial ways. Consider, for example, the predictive and directive functions of an utterance like *Straighten the front end and it'll be as good as ever* (AT.AT.315), in which a character from Anne Tyler's *Accidental Tourist* assesses the damage which her car incurred in an accident. In such uses, the fulfillment of the directive provides the background for the prediction.

Other functions of conditionals are less closely tied to the predictive one. In some cases, conditional space building seems not to set up a basis for prediction but to give the appropriate setting for a speech act, or to state the premises which led to an expressed conclusion (van der Auwera 1986; Sweetser 1984, 1990). The speaker of *If I don't see you before Thursday, have a good Thanksgiving!* is not *predicting* either the Thanksgiving's goodness or her wish for its goodness but setting her (perhaps overly early) good wish in the context of the fear that she may not have another chance for good wishes before the holiday weekend.[8]

Aspects of conditional form are correlated with the contrast between predictive function and non-predictive functions, such as speech-act conditionality. In particular, note the impossibility of a different verb form here: *If I didn't see you before Thursday, have a good Thanksgiving!* is almost uninterpretable.

At this point, logicians may be asking, "Why not give a logical analysis, based on truth conditions, for at least *some* conditionals, saving the pragmatically rooted analysis of conditionality for the cases which require it?" We see varied and cogent reasons for adopting a more unified and less modular framework. First, we do not see modularity per se as a virtue in an analysis; if pragmatic constructs are needed to explain some conditionals, and if they also help us give

[8] We follow Sperber and Wilson's (1986) convention, referring to the generic Speaker (S) as *she*, and to the Hearer or Addressee (H) as *he*. This alternation of pronouns serves simultaneously to avoid exclusive use of masculine forms for ungendered reference, and to improve reference-tracking in our text, since anaphoric reference to S and H will be formally distinct. The initial *s* and *h* serve as mnemonics for Speaker/she and Hearer/he.

a more satisfactory analysis of traditionally "logical" conditionals, then what economy is there in limiting the use of these constructs?

Second, traditional truth-value-based analyses of conditionality have always failed to reflect speakers' intuitions in crucial ways. The claim that *If P, (then) Q* is true whenever P and Q are both true seems nonsensical to anyone examining real linguistic conditionals. Both philosophers and linguists have noticed that conditional forms mark more than coincidence of truth values, and hence more than standard definitions of implicature. Causality is often understood as part of the relationship between clauses of a conditional construction; for example, the right kind of causal inferences are crucial to our ability to listen to *They'll kill you if you break anything else* (PD.SC.6) and understand that the punishment will materialize *only* if the addressee breaks another object. And finally, many of the same factors will turn out to be relevant to the interpretation of both more "logical" and more speech-act-oriented conditionals: causal contingency and relationship remain central to interpretation, no matter what kind of conditional is involved. So giving two essentially different treatments to these classes of conditionals would prevent us from stating important generalizations across them.

Several kinds of pragmatic contextual information are relevant to the present analysis. First, there are pragmatic structures conventionally marked by linguistic form. These structures are part of the conventional meaning of the relevant morphemes and constructions. A topic marker or a topic-comment construction *means*, in the sense of conventionally marking, that the speaker construes the discourse in a certain way; they thereby create such a context for an addressee. It is in this sense that we would like to say that *if* sets up a mental space, or that a particular verb form marks the speaker's commitment to the veracity of the content.

Second, the contextual speech-exchange frame generally available to all language users comprises a broad range of pragmatic information. This includes speakers' awareness of (i) an ongoing speaker–addressee exchange, (ii) the purposive nature of this exchange, (iii) the social as well as informational purposes involved (for example, commands and persuasion as well as exchange of information, or purely deductive inference, may be involved in the "message"), and (iv) the speaker's mental states (or her portrayal of supposed mental states) as a central aspect of the content.

Third, there is the metalinguistic fact that we know speech exchanges take place via particular systems of linguistic forms, and these forms themselves are present and can be commented on. It is this kind of background knowledge that allows for multiple uses of conditional forms such as those discussed by

Dancygier (1986, 1992, 1993, 1998) and Dancygier and Sweetser (1996). Conditional clauses such as *If that's the right word* or *If that's the way you say it* comment on a word choice in the preceding clause, rather than on the context for performing the speech act in question. The presence of speech-act interaction or linguistic form choices is not unique to conditionals, or even necessarily part of the semantics of conditional forms. It is generally present, simply by virtue of linguistic exchange taking place, and is thus implicitly accessible to linguistic usage and marking without requiring a great deal of special contextualization. It can also be explicitly marked in conventional ways.

Finally, there is the situation-specific conceptual network which is brought to any particular speech exchange. This network will involve both very general (sometimes non-linguistic) understanding of the world, and also particular understanding of the current interactional context. Although such context-specific knowledge is present in any actual interpretation, it is the more general aspects of linguistic contextual structure which are more likely to be formally marked in grammar. We will not, in our analysis of conditionals, need to argue that grammatical markers are conveying highly situation-specific aspects of the message, although of course grammatically conveyed meaning normally serves as a basis for all kinds of more immediately contextualized inferences.

Conditional forms are fascinating not only in themselves, but also as a particularly salient example of phenomena which are problematic for analysts in a wide range of disciplines. We will argue that they present the linguistic analyst with a strong argument for the need to abandon modularity (especially the strict syntax-semantics-pragmatics boundaries) if we hope to achieve analytic compositionality and generality. They are also a central case in any discussion of the relation between human reasoning and formal logical patterns; we will be arguing that generality and overall economy are best served by incorporating "logical" conditionals into a general analysis which fits human reasoning patterns. And finally, examining conditionals as part of a broad range of constructions – in the case of English, from *If P, then Q* constructions to related forms conjoined with *and* or *or* or *since*, as well as to forms not involving syntactic clausal conjunction – offers a complex and challenging laboratory for the theoretical framework we are practicing.[9]

[9] We will thus be offering a new typology of conditionals. For other general typologies of conditional constructions, see Funk 1985, Comrie 1986, Dirven and Athanasiadou 1996. Dancygier and Mioduszewska (1984) offer thoughts on semantic/pragmatic categorization, and Smith (1983) on conditional interpretation.

1.3 Mental spaces and constructions

Conditional constructions vary widely in function. It would be economical and elegant to be able to attribute some of this functional diversity to a few specific parameters of interpretation. Mental Spaces Theory opens up the possibility for such a treatment, by allowing us to talk about different kinds or classes of mental spaces. Consider the following example of a fictional older brother's advice to his sister about bandaging a cut. He says, *If I tie my handkerchief around it it'll stick* (PD.SC.13). We might say that this speaker is first engaged in setting up a space of mental **content** (see Sweetser 1984, 1990) – that is, a space which is *about* a possible state of affairs in his world, namely the situation where he ties his handkerchief around the cut. Within this space (further filled out by the speaker's and hearers' general knowledge about the situation referred to), the speaker predicts an added aspect of the content of this mental space: the handkerchief will stick to the cut. He predicts this result *only* in the space set up by the *if*-clause; there is no prediction about the handkerchief sticking to the cut if it is not being used to bandage it. These contingency relations are part of the structure of the represented content; that is, the speaker is talking about a possible attempt at bandaging, and the conditional construction marks his representation of a contingent relationship between that portrayed event and its predicted result.

By contrast, in an example like *If I don't see you before Thursday, have a good Thanksgiving!*, the speaker does not predict something about a good Thanksgiving on the basis of information about seeing the addressee before Thursday. Rather, the speaker sets up a discourse context, a **speech-act space** wherein Thursday has arrived without her seeing the hearer, and then utters a speech act which is to be taken as effective within that space. Any contingency relationship marked by *if* must be interpreted as holding not between the contents of the two clauses, but rather between the possible scenario portrayed in the *if*-clause and the speaker's act of well-wishing.

A conditional can thus set up, elaborate, and negotiate possibilities either in the world of linguistically described content, or in the world of current speech-act context and performance – where the events and participants are the Speaker, the Hearer, and the speech act with its interpretive context. Speech-act conditionals have been noticed as a special and interesting class for some time (Sweetser 1984, 1990; van der Auwera 1986).[10] Mental Spaces Theory provides a simple mechanism for the description and analysis of the difference between speech-act and content conditionals: we can construct spaces which

[10] See also Haegeman 1984, Athanasiadou and Dirven 2000, on pragmatic conditionals.

are either representations of content being talked about (or thought about), or representations of aspects of the speech-act structure itself.

What other sorts of spaces might speakers construct with conditionals? Sweetser (1984, 1990) has argued for a distinction between content conditionals and **epistemic conditionals**, which follow the speaker's reasoning process in a conditional manner and set up an **epistemic space**. Unlike causality in the world, reasoning processes may operate either from known cause to likely effect, or from known effect to possible cause. Effect-to-cause reasoning is frequently manifested in epistemic conditionals. To contrast content and epistemic conditionals involving common subject matter, let us consider the following example from *Snow Crash*, which is part of a background narratorial explanation of how characters access a virtual environment called The Street. We have already been told that some users own private access points, referred to as Houses. The narrator continues with the generic content conditional *If you are some peon who does not own a House . . . then you materialize in a Port* (NS.SC.37). Ports are public access points; people normally use them because they don't have their own Houses. Stephenson has already made it clear that when a character notices an entry to the Street via public Port, the inference follows that the newly entered virtual presence doesn't belong to someone who has a private House on the Street. One can easily imagine an epistemic conditional such as *If you materialize in a Port, then you don't own a House*, expressing not the causal contingency relationship between the two states of affairs (entry via public Port will not causally affect your ownership of a House), but the causal contingency relationship between the speaker's belief about an event of Port entry and her conclusion about lack of House ownership. Since reasoning from cause to likely effect is just as possible as reasoning from effect to likely cause, epistemic conditionals can also follow the direction of content causal contingency. Here, a character might possibly say, *If you don't own a House, then (I guess) you (must) materialize (on the Street) in a Port*.[11]

Dancygier (1986, 1992, 1998) has set out a further variety of conditional uses, wherein metalinguistic negotiation is involved rather than reasoning or speech-act structure or content. Consider the following example. The third-person narrator of a novel sums up his reaction to an incoherent rambling

[11] Note how the polysemy of modal verbs meshes with the parallel ambiguity of the conditional construction. A root reading of *must* would cohere with a content conditional: *If you don't own a House, then you must materialize in a Port*, i.e., you are conditionally obliged to *use* a Port. An epistemic modal reading works with the epistemic conditional, yielding a reading where the speaker is conditionally obliged to *conclude* that you materialize in a Port if she knows you are House-less. (See Bybee and Fleischman 1995; Sweetser 1982, 1990.)

interlocutor in the sentence *The philosophy of life, if it could be defined by such a phrase, was beyond his grasp* (MA.CE.107). The narrator mentally brings up a category such as "philosophy of life" and simultaneously questions the appropriateness of his own label, given the incoherence of the ideas referred to. Crucially, the narrator is not describing a contingency relationship at the content level; the interlocutor's mental processes are *unconditionally* beyond his comprehension. Nor are we to assume that he is describing his conclusion that they are beyond him, or his statement that they are beyond him, as conditional. He is apparently commenting on, or presenting as merely "conditional," his use of the label *philosophy of life*. In this case, we need a somewhat more complex mental-space structure, which we have called (Dancygier and Sweetser 1996) a **metalinguistic space**, and which will be defined and analyzed in Chapter 5.

Our claim, then, is that in all these cases a conditional construction involves setting up a mental space (in the case of *if*-conditionals, this is the job of the *if*-clause), and requesting construal of something (in *if*-conditionals, the *then*-clause or main clause) within that space. Much of the diversity of interpretation can be attributed to the fact that the spaces themselves can be quite diverse sorts of entities, related to the linguistic form in a variety of ways.

A skeptic might now say, "But you haven't told us the limits on this kind of construal; the list of varieties of mental spaces could go on forever." In principle, this is true: but we don't intend our theory to address the total limits for possible contextually induced mental-space construction. Only certain kinds of mental spaces are automatically contextually available to the speaker and the hearer simply by virtue of the existence of a speech exchange. In particular, *any* speech exchange involves a speaker–hearer pair and a speech-act context; it expresses content which is related to some described state (although the purpose may not be mere description, but an attempt to bring about, prevent, contemplate, or ask about that state of affairs); it can be assumed to bear a relationship to the speaker's mental states and processes (to "express" ideas or reasoning processes of the speaker); and, in using language, it makes use of form–meaning mappings which are therefore accessible to the speaker and the hearer in the context.

Our position, therefore, is that the current domains of content, epistemic structure, speech-act structure, and metalinguistic structure are privileged domains, in that they are automatically and implicitly available for access in processing utterances, including conditional utterances. This fact is what accounts for the kind of diversity we see in conditional interpretation.

Of course, if it is true that domains related to the current speech interaction are *generally* privileged with respect to mental-space construction, we would

expect that fact to have wide-ranging effects on interpretation, not limited to conditional constructions. And indeed, this is the case. As noted in Sweetser (1990), broad classes of linguistic forms show the same kind of possibility for multiple interpretations depending on the level or domain accessed. Parallel to conditionals are causal and adversative conjunctions, as well as many coordinate conjunction usages:

(1) Joe turned down the stereo because Sam was studying.
[Causal relation is between state of affairs described in P and event described in Q, i.e., between contents of the clauses.]

(2) Sam is (must be) studying, because Joe turned down the stereo.
[Causal relation is between the speaker's *knowledge* about the content of P and the speaker's *conclusion* about the content of Q.]

(3) Could you turn down the stereo, because I'm trying to study.
[Causal relation is between the contextual state expressed in P and the speech-act performance of the request in Q.]

(4) OK, Chris introduced me to her *partner*, since we're being politically correct.
[Causal relation is between contextual situation P and a particular form-content mapping used in Q, as opposed to alternative word choices such as *boyfriend, fiancé*, or *lover*.]

(5) Since you're a linguist, what's the Russian word for "blender"?
[Speech-act level causation or enablement.]

(6) Why aren't you in bed already? – and NO excuses!
[Coordinated speech acts.]

(7) We could go to that Chinese place – *or* there's always the Thai restaurant on University Avenue.
[Again, speech-act coordination: note that although *or* felicitously presents two *suggestions* as alternatives, the *contents* of the clauses are construed as both holding simultaneously, rather than alternatively.]

(8) Chris introduced me to her *fiancé* – or her *partner*, whatever you want to call him.
[Metalinguistic comment on the use of the word *fiancé*.]

Such examples can be multiplied with ease in the domain of conjunction. Some conjunctions seem to prefer particular domains: English *since* has only a temporal sense in the content domain, but has causal/enablement senses in the other three domains. If we consider French, *puisque* appears to be restricted to epistemic and speech-act causal uses, while *parce que* covers content causality as well (Ducrot 1972; Sweetser 1984, 1990).

Ranging farther afield, Horn (1985, 1989) has laid out in detail the differences between content and metalinguistic uses of negation. And the well-known contrast between deontic and epistemic modal uses is interpretable in terms of the content/epistemic contrast here invoked. Thus *Joe must be home by ten, because I say so* imposes a modality of compulsion in the content domain of Joe's getting home. But *Joe must be home by ten, because I always see his light go on then* involves instead a metaphoric "compulsion" of the speaker's reasoning processes: "I am forced to conclude that he gets home by ten, because I know that I always see his light go on then" (see Sweetser 1982, 1990; Talmy 1988, 2000).

What all these examples share is that some part of the linguistic form (e.g., *because*) need not be interpreted directly with respect to the expressed content surrounding it but can be interpreted as meaning something about the speaker's mental processes or the speech interaction, *even though those mental processes or that speech interaction have not been explicitly mentioned* in the content. So conditionals are not alone in allowing speakers to implicitly access speech-act, epistemic, and metalinguistic structure as well as content. As we shall see, their uses in negotiating space structure in all of these domains are central to the motivation we offer for their formal characteristics.

In fact, many grammatical markers and constructions explicitly signal aspects of mental-space structure; this is nothing unique to conditionals. Fauconnier (1985 [1994], 1997) has argued that pervasive grammatical markers such as definite and indefinite articles are equally engaged in mental-space construction. Fauconnier and Sweetser (1996) present a set of studies of grammatical marking of mental-space structure; Sweetser (1997) suggests that the choice of a lexical or periphrastic predicate may also be a grammatical marker of space structure. From these and other related work (such as Van Hoek 1992), set-up and structuring of mental spaces appears to be a central component of our production and interpretation of linguistic forms. The *If P, (then) Q* construction itself has been treated as a space-builder since Fauconnier (1985 [1994]), and the choice of verb forms to indicate epistemic stance fills a function similar to that proposed by Fauconnier for the French subjunctive. The point here is that an analysis which treats these constructions as having mental-space semantics can make generalizations which would otherwise be missed about the use of the constructions, and about restrictions on their use.

It is important to remember that *content* is not a term referring to a particular mental space, in the way that *epistemic* and *speech act* and *metalinguistic* refer to the spaces of the speaker's current reasoning processes, discourse interaction, and evaluation of form choices. Anything, including the current speech act

or the speaker's thought processes or linguistic judgments, can become the explicit content of what is being said. We will reserve terms such as *speech-act reading* or *metalinguistic conditional* to refer to cases where the speech act or the linguistic form is not the overt content of the utterance but is nonetheless invoked as part of the causal or modal or conditional relationship which is expressed. *Since I know you were awake all night, I imagine you'll want to sleep this afternoon* expresses a relationship between two described mental states of the reasoning speaker. These mental states are the actual content of the utterance, and we would not need any special category of epistemic readings of causal conjunction to explain such an example. On the other hand, *Since you've been awake all night, you'll want to sleep this afternoon* includes no explicit reference to the speaker's mental processes but requires an implicit reference to them in order to interpret the relation expressed by *since*. This is what we refer to as an epistemic reading of a causal conjunction.[12]

1.4 A word about our data and methods

Our goals are both to elucidate the form and meaning of English conditional constructions, and to use them as a case study for theoretical issues concerning constructional polysemy and compositionality. For both of these goals, careful attention to extensive data has been necessary. Readers will probably by now have noticed that we are taking examples from a variety of written English sources. The citation for each attested example will be found following the example; for sources cited multiple times, an abbreviated citation is used in the text, and the full citation can be found following our bibliography. Occasionally an overheard spoken example will be given, and the source cited. Examples with no citation are invented, whether by us or by colleagues; we have tried, however, to minimize the use of invented conditional examples except in the creation of contrast pairs, where we will often contrast an attested example with a plausible unattested one which differs from it minimally in context or in form.

The data was gathered by a variety of methods, including some electronic corpus searches (noted), perusal and search of many hard-copy texts, and the gathering of interesting examples as they happened to crop up in texts or in conversation around us. All of these methods have their advantages. A participant observer who writes down a spoken example will always have extra knowledge

[12] For a functional approach to adverbial clauses which has interesting parallels and contrasts with our cognitive approach, see Harder 1996. For general comparison with current treatments of conditionals, see Athanasiadou and Dirven 1997, Couper-Kuhlen and Kortmann 2000.

about its pragmatic setting which an electronic searcher of a transcribed spoken corpus cannot have. Similarly, though perhaps to a lesser degree, a careful reader of a long written text will have constructed an enriched context for individual uses in the text, which would not have been accessible to an electronic corpus-searcher who might scan only the immediate textual environment. Rare uses of constructions may not happen to occur in a particular corpus, even a fairly large one (e.g., meta-metaphorical conditionals never turned up in an exhaustive corpus search conducted by Declerck and Reed 2001). On the other hand, corpus data is naturally invaluable in ensuring that uses have not been omitted from a description simply because the researcher failed to focus on them, as well as in providing a diagnostic of the frequency of a given constructional use.

Another important factor is searchability of specific constructions. Some of our constructions are all too readily searchable: relatively easy though it would be to single them out, it would have been impossible to analyze individually every example of *If P, Q* in a large on-line corpus, so we were forced to deal with smaller samples. Others are almost impossible to search for precisely: the coordinate constructions described in Chapter 9 are an example of a class of constructions which would have been fully searchable only by examining all instances of *and* and *or* (or even conjunctionless "comma" coordination), and then handpicking the conditional examples from this immense haystack of data. (Context would also have had to be examined for each example, to be sure that the relevant meaning was intended.) For these constructional classes, we necessarily relied more on full human searches of extended texts, and on relevant adventitious examples.

Because this book is about a class of constructions which interact very strongly with the broader surrounding discourse context, our most central data source has been careful reading of longer texts. Each of us has gone through multiple novels in full, and parts of numerous others, collecting all conditional examples. Among the works used are two detective novels in their entirety, and parts of numerous others; this choice was a deliberate one, since we noticed that detective fiction was a prolific source of non-content conditionals – especially epistemic ones. (After all, the real subject of a detective novel is usually not so much the crime to be solved, as the mental processes of the characters engaged in solving it or wondering about it.) Anne Tyler's *Accidental Tourist* was chosen because we noticed her remarkably complex use of conditional forms in depicting characters' conversational negotiations and mental processes. And Stephenson's *Snow Crash* is simply a non-stop tour of mental-space transitions, making it a resulting treasure house for our kinds of data; Stephenson's choice to write the novel in the narrative present also gives analysts an unusual

source of constructions in an extended narrative context, which are not overlaid with the tense markings inherent in standard past-tense narrative structure.

Statistical frequencies of constructions were not centrally relevant to our purposes. We rely to some extent on Ford's (1993) helpful study of the frequencies of clause orders in conditional and causal constructions. There are also two particular cases where we discuss constructional combinations which have been said to be impossible, but which are actually simply very rare because of their unusual pragmatic contextual demands. One of these is the co-occurrence of *even if* and *then*; the other is the use of distanced ("counterfactual") verb forms with *unless*. In both of these cases, early corpus searches failed to find examples; after specific good examples surfaced (we thank Anne Tyler for helping us to see the light on *even if . . . then*), later and more extensive corpus searches turned up a few more examples. It is true that the extreme rarity of these constructions crucially differentiates them from their competitors, in ways that might be relevant in studying their processing, for example. But although it would have been fairly easy to determine the frequency of some of the more common conditional constructions in particular texts, we feel that this might reveal more about the frequency of particular discourse goals and contexts, than about the constructions themselves. We have concentrated on determining the contributions of particular forms to the texts in which they occur, rather than counting the frequency of speakers' and authors' need to express these meanings. We shall return to the issue of frequency at the end of Chapter 5.

For some purposes it would be essential to do careful statistical study of conditional uses. Among these would be the study of the acquisition of conditional forms, and the study of their historical development. Clearly in the former case, one would want to use other data sources, such as adult input to interaction with children; Johnson (1996, 1999a, b) gives a fascinating study of the ways in which adult input, combined with the child's cognitive development, motivates the succession of uses of a form which are acquired by the child (cf. also Tomasello 2000, 2003). In the latter case, there is good evidence that the transfer of contextual inferences to conventional meaning of a form is a crucial component in development of grammatical meaning as well as of lexical meaning (Meillet 1958 [1912], König and Traugott 1982; Traugott 1982, 1985, 1989; Bybee and Pagliuca 1985; Hopper and Traugott 1993; Traugott and Dasher 2002). For examination of the historical development of conditional constructions, one would want to use balanced historical corpora; various researchers have provided evidence that in at least some cases, statistical frequency of a potentially reanalyzable form is part of the context for grammatical reanalysis (Tabor 1994, Bybee 1999, Bybee and Scheibman 1999). Furthermore, in the

study of discourse interaction it seems important to notice frequencies with which participants make use of particular discourse mechanisms. We will be giving some specific analyses of more extended excerpts from longer texts; but in these it has seemed more revealing to concentrate on the specific motivations for the uses in context than to provide added statistical metrics. However, we would like to think that our proposed form–meaning pairings may provide grist for the mill of future discourse analysts, since it is always more fruitful to examine the discourse distribution of specific constructions (proven form–meaning pairings) than of forms whose meaning is less well understood.

Perhaps the most surprising aspect of our data-collection process has been discovering (i) the ease with which one can find new and undocumented uses of over-described constructions such as the English *if–then* conditional or coordinate conjunction, and (ii) the wealth of undocumented "minor" constructions which are formally and/or functionally related to the "major" and better-documented ones. We shall in general be talking about constructions which are relatively common, and known to a wide range of English speakers. Nonetheless, we hope this work will contribute significantly to the simple grammatical documentation of this area of English.

1.5 The grammatical "door-scraper": compositionality and frames

In cognition, and therefore in language, we can often evoke a larger complex structure without being given all the component pieces. One little piece can be enough. Humans are brilliant at frame-metonymic inference: we are constantly doing things like noting a mug in the dishrack, and inferring that a housemate had tea or coffee; or finding a dead bird on the porch and placing blame for the killing on the cat; or seeing an advertisement and concluding that there is an actual company which placed the advertisement. Any of these inferences could turn out to be wrong. But they are automatic and allow us to know all kinds of things that would be difficult or impossible to verify personally. Unless we videotape our cat all day, or physically visit the facilities of every business we deal with, we have to trust our inferences about how particular sub-events and entities fit into larger frames.

This ability is just as crucial to grammar as to any other area of higher-order cognitive processing. Give us an *if* and a *was*, and we have more than enough to construct a whole conditional semantics and pragmatics, without any further formal structure. As we shall see later in this book, much less will suffice: a construction such as *no pain, no gain* is interpreted conditionally without an *if*, although the order of constituents tells us which is the condition for the

other. *Frame metonymy* is as automatic, as rich in potential, and as pervasive in grammar as in the rest of cognition. We are like the Rat in our book-initial quotation from *The Wind in the Willows*: give us a grammatical "door-scraper," and we can see a whole house, the entire experiential frame within which we understand what door-scrapers are for.

Functional reframing is also as important in grammar as in general cognition. To exemplify this cognitive process, consider the following actual incident, recounted to us by Gilles Fauconnier. People at a party are opening beer bottles with a cigarette lighter, because they can't find a bottle-opener. Later in the evening, a party guest wants to light a cigarette; he requests a lighter. He is handed the bottle-opener which someone (unbeknownst to him) has since managed to unearth. The helpful person offering him the bottle-opener assumes that he asked for the lighter in order to use it as a bottle-opener.

In grammar as in other situations, there are conventional connections between form and function. We conventionally associate lighters with lighting cigarettes, and bottle-openers with opening bottles, without much reflection about how they came to be the way they are, or about what other less conventional affordances are offered by that kind of physical object. Similarly, there are grammatical constructions which we might think of as "dedicated" to some specific communicative function – as conventionally "meaning" a particular meaning. And yet, in the right context, we readily notice the bottle-opening affordances of the lighter, or the conditional-expressing affordances of the particular *NP, NP* pairing involved in *no pain, no gain*. Such situational affordances can go on to become conventionalized – as happened temporarily and locally in the case of the guest who offered the bottle-opener in response to the request for a lighter.

Cognitive and linguistic structure are highly compositional – specifically in language, no analyst would deny the overwhelming regularities in the way linguistic forms combine regularly to produce larger wholes, whose meanings are predictably related to the meanings of the parts. But cognition and language are also less than compositional, and more than compositional. Sometimes relatively fixed combinations of forms have meanings which we just cannot predict from examining the parts: knowledge of the meanings of the words will not tell a non-native speaker of English that *the more, the merrier* means something like "Merriment will increase with number of participants," far less that it extends to cases where no "merriment" is literally involved, such as professional tasks or sharing rides (see Fillmore, Kay, and O'Connor 1988, Michaelis 1994b). At other times, you get the meaning of a whole construction "for free" from the presence of one sub-constituent: the parent who says *One*

more word out of you! in an admonishing tone to a child talking after bedtime evokes immediately the conditional relationship between the hypothetical space of uttering *one more word*, and possible negative consequences.

In this book, we will take English conditional constructions as a sample case of grammatical compositionality, non-compositionality, and extra-compositionality. We shall examine the ways in which they involve compositional combination of regular constructions, as well as the ways in which they require us to postulate specific sub-constructions, even idiomatic formulae, and (on the other hand) the ways in which they often give us more meaning than compositionality could provide. Inferential structure, frame-metonymic reasoning, and contextual affordances are constantly and productively at work in giving us access to such meanings – which may become conventionalized, once they have been accessed. Overall, it makes little sense to see grammatical meaning – or cognition – as purely compositional. Rather, we need to recognize that both may exploit cues which are often minimal, to build a much larger and more complex structure from known context and correlations. And we need to remember that they are inherently that kind of a system; natural language and cognition have never been – and could not be – used by everyday users in context-free logical compositional ways to refer to set-theoretic categories. Grammar, like thought, works with highly specific and very general correlations, exploits relevance in context, and is generally successful at prompting much meaning with minimal form.[13]

English conditional constructions perfectly exemplify the cognitive phenomena just mentioned. They richly display the complex overlaps between meanings and forms of different related constructions, and the contextual pragmatic inferences attendant on their uses in conext. They are also a showcase example of the ways in which the "same" meaning can be conveyed either via a complex compositional construction, with each subcomponent cuing some part of the intended meaning, or via some much more partial cue, which conveys rich meaning only because most of that meaning is already accessible from the context.

[13] Fauconnier's preface to the 1994 printing of *Mental Spaces* gives a particularly clear picture of the extent to which language functions by prompting space construction which goes far beyond what is conventionally expressed – and the extent to which it *can only* function in this way. Interestingly, one of the few general convergences between cognitive and formal approaches to linguistics in recent years has been the increasing recognition that most of meaning is not simply "in" the forms. Work in Relevance Theory is a good example; see Sperber and Wilson 1986, 2002; and related work in Relevance Theory; for a relevance-theoretic account of conditionals in particular, see Smith and Smith 1988.

1.6 Where we're headed

We now turn to the analysis itself. The book is to some extent a tour of English conditional constructions. Since mental spaces are one of our most basic analytic tools, we begin by showing that traditional categories of conditionals, as well as some less traditional but well-supported categories, can be systematically mapped onto semantic and pragmatic structures involving mental-space configurations. We move from mental-space structures such as *prediction* and *alternativity*, which we claim are central to the meaning of certain common (and even "prototypical") conditionals, to other issues such as the order of the space-building process and its relation to the order of clauses. We try to give a relatively full analysis of a range of constructions, supported by close analyses of some specific textual examples and examination of the relevant constructions' contributions to the space-building processes prompted by the examples in context.

We see our specific examples as constantly and inevitably relevant to a deeper understanding of the relation between language and cognition. The speakers and authors of our examples show astounding skill and versatility in achieving their communicative goals, and in the process they necessarily reveal much about the mental processes of reasoning which underlie their performances. An analysis of meaning in terms of mental spaces offers us the means to formally express generalizations about conditional constructions which would be lost if we were to insist on separate descriptions of semantics and pragmatics, for example; this alone is an important observation about what cognitive models of language are plausible. At a higher level of analysis, we concur with Mark Turner (1991, 1996) in feeling that it is at least as important to examine the cognitive structures involved in complex artistic texts, as it is to model other aspects of cognitive processing. Our goal is to provide an analysis of conditionals which may promote understanding on all levels of their use.

2 *Prediction, alternativity, and epistemic stance*

> "Of course, if he figures you're on to him, he'll want to pop you next."
> (SG.OO.373)

2.1 Conditionals and mental-space set-ups

Grammars and textbooks seem unanimous in starting their treatment of English conditionals with certain classes of forms. Any textbook will tell you how to say *If it rains, they'll cancel the picnic* or *If I'd done my homework, I'd have done better on the test*; but most of them never get as far as *If you're so smart, why aren't you rich?* or *If you're free this evening, there's a good movie on*. Further, it is the same class of "central" conditional functions which seem to be used crosslinguistically in identifying a particular form as a conditional. That is, a grammatical form which conventionally does the same job as *If it rains, they'll cancel the picnic* is ensured a conditional label in a grammar of the relevant language.

Although we don't intend to stop with this limited set of conditional functions, we are starting our examination of conditionals with familiar examples like these. There is a good reason for the salience of this class of functions in the minds of grammarians: the conditional *predictive* function is an important one in human cognition and communication. As an initial non-technical approximation, let us say that by *predictive conditional* we mean that someone is predicting something (e.g., picnic cancellation), but only conditionally upon some unrealized event (e.g., rain happening tomorrow). Every language has some way of expressing this function. Interestingly, this is not to say that it is necessarily more frequent in usage than other uses of (for example) English *if–then* forms; we will return to the issue of frequency later.[1] But it is important, salient, and related in motivated ways to a wide variety of other functions. Both formally and functionally, it seems a reasonable place to start our investigation.

[1] Savova and Sweetser (1990) found speech-act and epistemic conditionals more frequent than content ones, in the Bulgarian and English literary texts they examined.

In the course of our analysis, we will bring up what we feel are serious problems for most traditional semantic treatments of conditionality. Despite much debate, the standard analysis of conditional meaning still remains one which parallels unidirectional logical implication – sufficient but not necessary conditionality in the logical world. However, various analysts have noted ways in which the interpretation of conditional structures is not strictly unidirectional. Geis and Zwicky (1971) have remarked that the actual interpretation of many conditional sentences is a biconditional ("if and only if") interpretation. A speaker who says *If you mow my lawn, I'll pay you ten dollars* is normally understood to mean that the ten dollars will not be paid unless the addressee mows the lawn. Indeed, Internet searches reveal almost no uses of the phrase *if and only if* (apparently superfluous in most registers), but predictably ubiquitous use of simple *if*-conditionals with a biconditional reading.[2] The question is to what extent the bidirectionality of this interpretation depends on context, and to what extent it is semantically tied to the *if*-conditional construction. We shall argue (i) that *iff* biconditional interpretation correlates not with conditionals at large, but with specific subclasses of conditionals, and (ii) that those subclasses of conditionals have formal constructional markers which convey the semantics of *prediction* based on *alternatives*.

This chapter will examine correlations between the predictive function of conditionals, and the forms which mark aspects of prediction. The framework of mental spaces (Fauconnier 1985 [1994], 1997) will enable us to express important generalizations about both the logical and the pragmatic aspects of conditional meaning. At the same time, a constructional analysis of conditional forms (see Fillmore 1990a, b) allows us to describe formal parameters such as choice of verb forms, and to map those formal choices directly onto semantic and functional aspects of conditional constructions.

We begin with the idea that an *if*-clause sets up a **mental space**, in Fauconnier's sense: a partial or local model of some aspect of mental content, in this case very possibly a model of some situation in the world, or (as we shall see) of some speech-act interaction or some reasoning process.[3] As we said in the last chapter, an older brother who says *if I tie my handkerchief on it [a cut] it'll stick* is using the *if*-clause to set up a space wherein he ties his handkerchief on the cut, and then predicting that it will stick to the cut in that envisioned situation, not in other circumstances. The job of *if* is to prompt the set-up of a mental space.

[2] Thanks to Karen Sullivan for searches.

[3] See Dancygier and Sweetser 1996 and Sweetser 1996b for discussion of mental-space structures and conditionality.

Mental spaces are different from possible worlds in a number of respects, most importantly in that they are not objective in nature, nor necessarily describable in terms of Boolean truth conditions; and also in being local rather than global. Let's examine what we mean by *local* in a specific example. In Paul Scott's *The Jewel in the Crown*, a young British woman named Daphne, who is living in India and has an Indian lover, has been raped by Indian men and is dealing with the resulting difficult social situation. In a letter, she writes, *If I'd been assaulted by men of my own race I would have been an object of pity . . . But they weren't men of my own race* (PS.JC.290). Scott evidently intends an "if-and-only-if" reading of this conditional. Precisely because the rapists were not white, Daphne is *not* being pitied but, instead, is a social outcast. But Scott surely does not mean this to be taken as a global statement that nothing else could have made her an object of pity (e.g., losing a loved one, or becoming crippled by a serious illness). A more plausible reading by far is that Daphne is just not envisioning any such global range of possible reasons why she could be pitied. She is not considering other scenarios which might cause pity, but simply the influence of racial prejudice on her current situation. Within the local range of possibilities under consideration, only a difference in the race of her attackers would produce a difference in public reaction to the event.

This local nature of mental spaces – the fact that they are often concerned with local alternatives and local coherence, rather than global ones – is crucial to the ease with which Scott's meaning is communicated. Because they are constructing mental spaces based on existing local space set-up, readers do not have to go through the reasoning we just constructed. Instead, they start with the knowledge that Scott's *iff* reading is to be construed within the context of Daphne's rape and possible alternative social reactions to it. The same kind of cognitive locality holds true of the space construction done by conditionals in general.

Words are not the only way we can set up a mental space. Pictures set up a visually depictive space, wherein entities may or may not correspond to other "depicted" entities: hence the now-famous example *In the picture, the girl with blue eyes has green eyes*. Since the description of the actual girl can be used to refer to her depicted **counterpart** (Fauconnier 1985 [1994]), the sentence has a coherent reading. Language, in this case, reflects our world knowledge about depiction and space construction, rather than having a special mechanism for space construction. The **space-builder** involved in this example, *in the picture*, cues the hearer into the possibility of reference to entities in more than one space. As mentioned earlier, spaces are not all world scenarios; some are more like **domains**: in *The tuna sandwich wants his check*, the space of food items

ordered is mapped onto the space of customers, so that the language referring to one can be used to refer to its counterpart in the other space. But most of the spaces involved in conditional constructions are not domains, but partially structured understandings of situations in the world.

The very idea of imagined and portrayed mental spaces seems to assume that we have some "real" space with which to contrast them. But in fact, every speaker's reality space is different from every other person's reality. So there can't be some general, shared reality or base space – or not in the sense of a relatively fully elaborated world picture. However, each speaker has some privileged set of mental-space structures which she understands as corresponding to her actual experience and/or to situations which she believes actually prevail or took place in the past. And speakers may share certain aspects of these structures, even quite detailed aspects. Fauconnier labels the speaker's understood reality space as the **base space**, on which other constructed spaces depend.

2.2 Prediction and reasoning

One of the most important reasons for setting up mental spaces is to imagine alternatives: in a mental space where we imagine some eventuality, what do we imagine as the results of that eventuality? Our capacity to imagine the results of alternative courses of events can be used for purposes as minor and everyday as those of the older brother who imagines bandaging a sister's cut with a handkerchief, and then imagines the result (*If I tie my handkerchief around it it'll stick*). This train of reasoning may enable him to abandon a particular first-aid strategy without having first ruined his handkerchief uselessly. We can also reason in this manner about events on a larger scale. Policymakers constantly construct mental scenarios to play out imagined results of different economic and military actions, and choose between the actions on the basis of imagined results; historians subsequently judge the policymakers based on a similar comparison of scenarios.

So everyday human decision-making constantly involves conceptualization of a scenario wherein some action has been taken, and imagination of the possible results. Imagined futures constitute the basis for an important human activity: **prediction** (Dancygier 1993, 1998). Without engaging in prediction – in the construction of (and commitment to) some future scenarios as more likely than others – we could never make decisions or take action at all.

Some predictions may be based on certainties: in saying, *When morning comes, it'll be light again*, we do not consider mental spaces wherein there won't be a morning. Fillmore (1986, 1990a) remarks that *when* involves the speaker's

commitment to **positive epistemic stance** towards the content. *If*, unlike *when*, seems dedicated to the range of options other than positive epistemic stance; it is not explicit about how the speaker views the mental space she builds, but it does portray that space as being something other than the accepted reality with which the speaker completely identifies.[4]

Unconditional predictions are of course made on the basis of unexpressed background knowledge or assumptions: *I'll have a few more wrinkles next year* probably assumes that the normal aging processes will go on in the speaker's body, for example, and does not envision alternatives such as plastic surgery, just as *It'll be morning again in twelve hours* assumes that darkness and light will continue to alternate as they have in the past.

But perhaps the most interesting predictions are those that are based on alternatives: for example, an imagined rainfall tomorrow might allow us to predict cancellation of a tennis game, while some other state of affairs would have allowed us to predict a different result. In a sense, a prediction not based on alternatives is less valuable than an alternative-based one, even if it is true: it does not help us set up plans of action, or choose ways of responding to events and situations, in the same way that we are helped by comparing alternatives.[5]

A predictive conditional, then, sets up a correlation of parameters which structures alternative mental spaces. Here is an example from *Snow Crash*. A hacker named Hiro is virtually present in a digital environment called the Street, where his "avatar" (virtual self) is approached by another participant's avatar which attempts to hand him a "hypercard." The author explains what a hypercard is, in (1).

(1) If Hiro reaches out and takes the hypercard, then the data it represents will be transferred from this guy's system into Hiro's computer. (NS.SC.44)

This conditional represents two alternative mental-space set-ups, as shown in Diagram 1, both interpreted as potential futures of the narrative's current base space. One contains an *if* space, in which Hiro's avatar accepts the hypercard, and its **extension** space, in which the data is transferred to his computer. The other, **alternative** set-up has spaces in which Hiro refuses the card and no data is transferred.

[4] On the issue of epistemic stance and conjunctions, see also Dancygier 1998; Dancygier and Sweetser 1996, 2000.

[5] Fillmore (1990a) comments that for this reason, it would be less useful to have unconditional future information than conditional information about future events based on contingencies within our control.

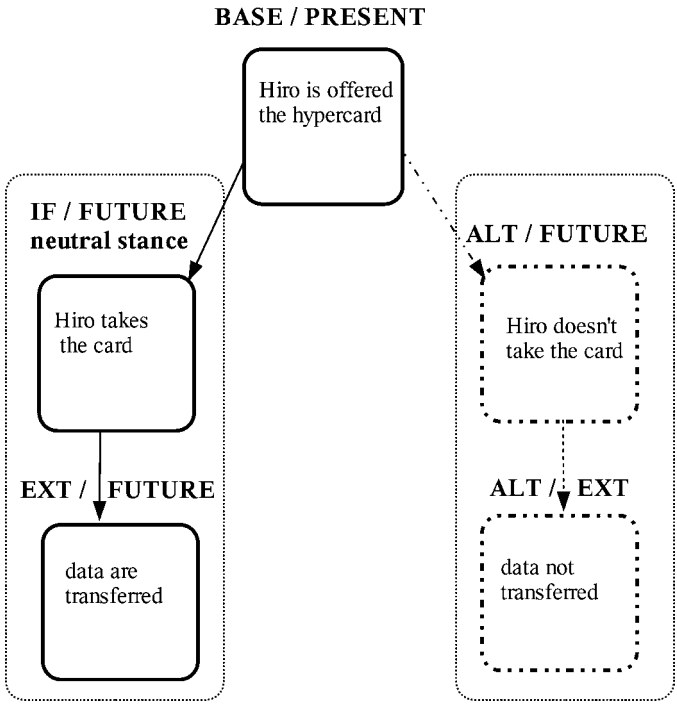

Diagram 1 *Example (1) If Hiro reaches out and takes the hypercard, then the data it represents will be transferred from this guy's system into Hiro's computer.*

The essence of conditional predictiveness is the correlation (here, between hypercard-acceptance by an avatar, and subsequent data transfer) which allows conditional prediction of one event based on knowledge about the other. Normally, speakers and hearers assume a causal structure behind such a correlation: that is, two events which are correlated strongly enough to permit prediction of one based on knowledge about the other, are typically understood as correlated because of some causal relationship. The structure of the correlation is understood to depend on the causal structure; if X inevitably causes Y, we could predict Y from X, while if X only sometimes causes Y, then the resulting correlation will be less useful for prediction. So a conditional prediction normally invites a hearer to imagine what models of the world would lead the speaker to believe in the correlation underlying that prediction. For example, in (1), the hearer/reader might share with the speaker/writer an understanding that in the actual world it is possible to manipulate entities in digital environments

to cause information transfer over long distances. The reader could then draw on this causal model to explain the correlation underlying the conditional as an imagined elaboration of an already familiar, more general, causally motivated correlation. In this sense, prediction brings along a causal model into the speaker's and hearer's mental-space structure.

Not all causal models involve direct causation of the event in the main clause by the event described in the *if*-clause: other relationships, such as enablement (*If I get funding, I'll go to the conference*), are also included in our understanding of causal relationships between events. And the correlation need not be understood as based on a causal relationship from X to Y; correlations between X and Y may also arise if X and Y have a common causal source, for example.

We can now explain why predictive conditionals are normally interpreted as having *iff* or biconditional structures. Notice that the mental spaces in question are partially (locally) structured entities. Example (1) does therefore mean that if Hiro reaches out and takes the card, then the data will be transferred, and that if he doesn't, then the data won't be transferred – within the limited world-structuring provided by these spaces. Here again, we're not concerned with a more global range of possibilities – e.g., that one of Hiro's less savvy friends might get the same offer, accept the hypercard, and eventually transfer the data to Hiro's computer; or that another hacker working in the virtual environment might manage to nullify the hypercard just as Hiro's avatar accepts it, preventing transfer. If either of these things happened (*after* the moment in the narrative to which the conditional refers), the narrator's uttered conditional prediction would still have been "true" (a valid prediction) for the moment to which it applied. Of course a speaker or hearer can imagine many different causal scenarios leading to the same result. But in saying *If he takes the card, the data will be transferred*, a speaker is not considering those possible chains of events, but rather simply the possible results of taking or not taking the card within the local context built up so far.

This local kind of interpretation is not only normal to human conceptual structure, but is also essential to the usefulness of predictions. What use would a conditional "prediction" be, if the correlation were not bidirectional? It would be communicatively deviant to warn Hiro, or inform the reader, that if Hiro takes the card the data will be transferred, in a situation where the speaker or narrator knows that the mere proximity of the hypercard to Hiro's avatar will also bring about the transfer.

In fact, even when (unlike Daphne, or Hiro's narrator) speakers consider multiple possible conditional causal scenarios, they do so alternatively rather than cumulatively. A speaker who says, *If it rains, they'll cancel the game* and

adds, *If there's an earthquake they'll cancel it too*, and *If there's a hurricane they'll cancel it too* is nonetheless not taken to be envisioning a world wherein rain, earthquake, and hurricane all happen together, but three separate possible scenarios, each of which has one of the same results.

So we do agree with past analysts (e.g., Grice 1978, Karttunen and Peters 1979) that the *iff* implicature of ordinary predictive conditionals is not a global logical property of the formal semantics of the conditional sentence. If it were, one could not continue example (1) by saying something like *Of course, if some stupid friend takes a similar hypercard and gives it to Hiro, then the data will also be transferred to his computer*. However, the properties and purposes of predictive mental-space construction ensure that the *iff* interpretation will be the normal one, since (i) speakers and hearers will construct a minimally altered mental space, adjusting it locally as directed by the content of the *if*-clause, and (ii) they will assume that *If P, (then) Q* predictions are not relevant unless there is a correlation between ∼P and ∼Q, as well as between P and Q.

2.3 Alternativity and "biconditional" interpretation

By the assumption of relevance which makes *iff* interpretations of conditional predictions almost automatic, hearers are therefore prompted to construct not just one single space involving P and Q, but also an alternative space involving ∼P and ∼Q. What does it mean for two spaces to be in an *alternative* relationship with each other? Intuitively, we feel that alternatives are things which cannot coexist, as they are mutually exclusive fillers of the same spatiotemporal slot. Random non-identities or incompatibilities between spaces, by this account, should not make these spaces alternatives to each other. The resemblance between two spaces does not necessarily make them alternatives, even if they resemble each other with respect to everything except some particular parameter: this relationship could hold, for example, between two temporally sequential spaces where only some minimal change has occurred between the time of the first and the time of the second – not an alternative relationship.

As an initial approximate definition, we would say that two spaces are in an alternative relationship if they are incompatible (and thus cannot be combined into a single coherent space) and are both construed in context as subsequent causal and temporal developments from the *same* base or reference space, for the same portion of the timeline. That is, the two spaces in question are incompatible fillers of the same "slot" in the range of time values for counterpart spaces of that base. The "hypercard accepted" space and the "hypercard refused" space in the preceding example cannot both correspond to the reality of the same

immediately following moment in Hiro's life; both are possible causal developments from the same construed present-reality space, but they are mutually exclusive ones. This definition will be refined along the way. Most importantly, we must keep in mind that the space undergoing causal development may not be the described space of the speech content, but the implicitly evoked one of the speaker's thought processes or linguistic choices.

The space directly mentioned in a conditional prediction is set up more saliently and directly than its implicit alternative. In our example the hypercard-acceptance space, rather than the refusal space, is directly mentioned. But neither *If he takes the card, the data will be transferred* nor *If he refuses the card, the data won't be transferred* is a reasonable mental-space-structuring utterance without the presence of both possible future spaces and the alternative relationship between them.

This section presents a series of attested conditional predictions, showing that in each case the same kind of mental-space construction is involved: a space is built wherein some P holds, and a prediction of Q is made within that space. Attendant inferences are drawn about an alternative space where ∼P and ∼Q hold; and this placing of the prediction in the context of an alternative space permits, in its turn, further inferences about desirability of one space or the other, and possible courses of action.

Our first example is from a complaint addressed to Dorothy Sayers' fictional detective, Peter Wimsey, by a teenage girl who has inherited unwanted wealth; she now suspects that her guardian will use her fortune as a reason to control her life. She says, *He will want me to marry some horrible rich man, and if I want to marry a poor one, he'll say he's after the money. And anyway, I don't want to marry anybody* (DS.NT.265).

This speech shares formal characteristics with our earlier examples: its form is *If P (simple-present), Q (will-future)*. It also shows all the meaning characteristics discussed above. It only predicts that the guardian will think a suitor is after her money in a space wherein she favors a poor suitor, not in other spaces. In context, we assume that the uncle will not make such accusations to the "horrible rich man," for example. And although other spaces (such as the uncle's wish-space, where the girl marries money) are set up by other parts of the text, the conditional itself is clearly setting up most saliently the positively described scenario, the one wherein she falls in love with a poor man. This makes good sense in context: the possible problem will arise only in the space where she wishes to marry a poor man, since it is contingent on her uncle's suspicions of fortune-hunters. However, although this is the explicitly set up alternative, we do not understand her as predicting unconditionally that she

will want to marry a poor man: this scenario is only a background condition to the prediction about the uncle's objection. This stands in contrast with her preceding unconditional (and non-alternative-based) prediction that her uncle will want her to marry someone rich.

Our second (and formally similar) example is a fictional police detective's warning to a private detective. He is predicting that the criminal whom they are trying to convict will become dangerous to her if he realizes that she suspects him, though there is no evidence that the criminal is as yet aware of her suspicions. The police detective says, *Of course, if he figures you're on to him, he'll want to pop you next* (SG.OO.373). The same *If P (simple-present), Q (will-future)* form is observed, and the same kind of space building is being done. The prediction is that in a space where the criminal becomes afraid of being found out, he will become dangerous to the investigator. This prediction is made precisely so that the addressee can attempt to prevent the potential danger from materializing, by avoiding letting the criminal notice her investigation. By considering the consequences of one space-building condition, she is enabled to realize the importance of maintaining the alternate condition (the criminal's unawareness of suspicion), along with its desirable consequences for her personal safety. The unmentioned alternate space is thus in some respects the most crucial one in both interlocutors' cognitive processing. Conditional predictions are often used this way, as warnings; in later chapters we shall have more to say about this use.

Our final example for this section is not an *if*-conditional. However, it shows all the verb forms which characterize predictive conditionals and conveys predictive conditional meaning. It thus gives strong support to the hypothesis that the pairing of verb forms is itself a meaningful construction, and makes a compositional contribution to the predictive conditional readings in the *if*-conditionals we have examined. Further, given that the pairing of clauses with particular verb forms is in itself a predictive conditional construction, it then seems less problematic to recognize the rather limited extent to which *if* itself contributes to conditional meaning. This in turn makes it easier to deal with the broad range of observed uses of *if*, some of which are very far from being "core" conditional uses.

This final example, taken from a C. S. Forester novel, is of special interest because the surrounding text shows the author's close awareness of the alternativity inherent in conditional predictive space building. Since it is not an *if*-conditional, it also serves as a reminder of the need to account for parallel uses of other formal mechanisms used to mark conditionality. The example is part of an interview between a fictional British naval commander of

the Napoleonic war period, Horatio Hornblower, and his commanding officer, Admiral Cornwallis. Cornwallis has just given Hornblower a difficult assignment in a coastal blockade of shipping – a job involving constant assumption of major navigational risks. A naval commander bears total ultimate responsibility for his ship. Hornblower, neither wealthy nor well-connected, is particularly vulnerable. Should his ship be lost, an Admiral might well be ready to lay the blame on him, despite his having been the one who ordered the commander to take on the risky duty. Here is the passage, with our italics and speaker-identifications.

(2) (Cornwallis) "I don't have to tell you not to run her aground."
(Hornblower) "No, sir."
(Cornwallis) "But remember this. You'll find it hard to perform your duty unless you risk your ship. There's folly and there's foolhardiness on one side, and there's daring and calculation on the other. *Make the right choice and I'll see you through any trouble that may ensue."*

Cornwallis' wide blue eyes looked straight into Hornblower's brown ones. *Hornblower was deeply interested in what Cornwallis had said, and equally interested in what he had left unsaid. Cornwallis had made a promise of sympathetic support, but he had refrained from uttering the threat which was the obvious corollary*. This was no rhetorical device, no facile trick of leadership – it was a simple expression of Cornwallis' natural state of mind. He was a man who preferred to lead rather than to drive; most interesting. (CSF.HH.394)

Although Cornwallis' conditional promise is formulated as a pair of clauses conjoined by *and*, Hornblower understands it as making an alternative-based conditional prediction similar to one which might be expressed as *If you make the right choice, I'll see you through any trouble that may ensue*. He sees this as a "promise"; like threats, promises constitute an interesting class of discourse uses of conditional predictions. This promise is intended to encourage Hornblower to carry out the condition P (i.e., make intelligent choices in his command), so as to ensure that its result Q (Cornwallis' support) applies in case things turn out badly. Forester explicitly tells us that Hornblower finds relevance in this promise because he is strongly aware of the unmentioned alternative space; if Hornblower loses his ship by incompetence or foolhardiness, then no admiral, however generally supportive, will protect such a commander from the extreme consequences which are likely to follow.

Chapter 9 will examine conditional uses of coordinate forms to express conditional meanings; the apparent imperative verb in the first clause of Cornwallis' utterance is of special interest. Appropriately, the second clause contains the expected *will*-future form, and the first clause fills a space-building function

relative to the following prediction. The alternative-based nature of the prediction is as clear as with the *if*-conditional predictives cited above.

Helpfully, Forester not only gives us Cornwallis' conditional statement, but also depicts Hornblower's mental process of interpreting it – a process which could have been taken straight from the pages of H. P. Grice. Hornblower is a Gricean in that he attributes the content of the conditional promise of support to Cornwallis' utterance meaning, while the converse threat *If not P, not Q* is treated as only pragmatically connected with the promise. It is an "obvious corollary" which Cornwallis "had refrained from uttering."

Grice's (1978) classic analysis of *or* argues that *or* is semantically inclusive (that is, *P or Q* logically covers the situation where both P and Q are true, as well as those where one of the two is true). It is by pragmatic implicature that it conveys an exclusive meaning: since a speaker who knew that P and Q were both true would be expected to say *P and Q* (by maxims of quantity and relevance), the hearer can infer that the use of *or* is intended to convey "one or the other, but not both." Similarly, if the speaker specifically knew P to be true, she would be expected to say *P* rather than *P or Q*; the hearer thus infers from *P or Q* that the speaker does not know which of P or Q is true, but only that one or the other is true. Since natural language shows both inclusive and exclusive uses of *or*, there is certainly some elegance to the idea of accounting for the former based on semantics alone, and for the latter based on inference from the semantics in context.[6]

Similarly, one standard approach to the "biconditionality" of predictive conditionals is to say that they are semantically unidirectional and pragmatically bidirectional by added inference (see Smith and Smith 1988). Geis and Zwicky (1971) are obviously correct in asserting that for many conditional utterances, there is a natural inferential pattern from an utterance *If P, Q* to an added conclusion that *If not P, not Q*. We argue that such an inference follows almost inevitably, not from conditionality per se, but from one central function of conditional constructions, namely conditional prediction, and in particular the alternative space structure which underlies these conditional predictions. How can it be helpful, or *relevant* (in the technical sense of Sperber and Wilson 1986) to mention that *If P, Q* – that Cornwallis will support Hornblower if he exercises good judgment, or that if Hiro's avatar accepts the hypercard then data transfer will occur – unless we know that P is a valid predictor for Q? And that validity is ensured in particular by the contextual assumption that P is not merely a sufficient condition for Q, but the only likely condition for Q.

[6] See also Cohen 1971, commenting on the Gricean approach.

In the preceding analyses, we have stressed the fact that, in context, Q is indeed being treated as the only plausible sufficient condition for Q. Presumably there are a thousand possible ways to transfer particular data to Hiro's computer, in his webbed-up future universe. However, we are only considering the hypercard as a mechanism of transfer: in context, it is true to say that Hiro can prevent this data from transferring to his computer by not taking the hypercard.

The purpose of a predictive conditional utterance of this kind is precisely to express conditional prediction of Q (e.g., data transfer), based on a (causal) correlation between P (e.g., taking the hypercard) and Q, and *not* based on other factors which might arise. The assumption has to be made that this correlation, rather than other ones, is the most important or relevant one for predicting this event in context. So under circumstances where a conditional is taken as being used for prediction, the importance of the P/Q correlation will motivate the hearer to set up an alternative space where ∼P and ∼Q hold. Geis and Zwicky's added inference can thus be said to consist precisely of the construction of a $\sim P, \sim Q$ (e.g., "no hypercard-acceptance, no data transfer") alternative space, as a complement to the expressed P,Q space which is actually mentioned in the sentence.

This explanation predicts that there should be no *iff* inference normally drawn from conditionals which are not used predictively and/or do not involve the setting up of alternative mental spaces. And this seems in fact to be the case. A speech-act conditional such as Austin's (1961) *If you are hungry, there are biscuits on the sideboard*, is evidently non-predictive: neither the biscuits' presence nor the offer can be said to be *predicted* based on the addressee's hunger. And indeed it does not carry an *iff* inference: the offer is evidently made, and not exclusively made if P is true. There is no particular inference that the biscuits are unavailable for other hungry guests, or would be refused even if the addressee turned out to be more greedy than hungry. And in common usages like *If I don't see you before you leave, have a great Thanksgiving*, the speaker certainly does not intend to retract the early good wish in the event of another meeting before the departure but is justifying it by placing it in the shared mental space context of the risk that she may not get another chance to offer it (see Dancygier and Sweetser 1997).

The inference of *Q iff P*, then, follows specifically from an alternative-based predictive conditional. It follows because the predictive relationship involves a correlation between P and Q, normally a two-way correlation which can be used in prediction (Dancygier and Sweetser 1996, 1997; Dancygier 1998). The nature of the correlation is not specified. Pragmatics will intervene here: speakers will construct appropriate causal connections to account for the correlations

in question (e.g., we might construct mental models of information flow in Hiro's virtual environment, or make use of Forester's broader textual context to imagine what could cause Cornwallis to be supportive of Hornblower).

Does this mean that the fact of "connection" between P and Q is itself a pragmatic inference? Akatsuka (1986) has argued that the *kind* of connection is inferred, but the connection itself is a necessary aspect of the interpretation of a conditional construction. We agree with her, in that *if*-conjunction demands an interpretation involving some construed link between the two clauses. Of course, as is often the case with constructional meaning, the meanings of the parts strongly motivate the meaning of the whole construction. The overt conjunction of two clauses in itself conventionally conveys mutual relevance of the two clauses; the use of the specific conjunction *if* marks the *if*-clause as non-asserted, and as backgrounded to the main clause. All this strongly motivates the "connection" interpretation of the conditional construction as a whole and even specifies the direction of that connection: P is background, and possibly the cause, of Q, rather than the other way around. Of course, new information, or crucial information, can be introduced in an *if*-clause. This need not invalidate the statement that *if*-clauses are backgrounded with respect to the main clause. In fact, introducing new and salient information in a "backgrounded" syntactic slot performs particular functions, such as allowing the speaker to pretend it was given all along – this may in turn have some effect on the hearer, such as making him feel as if he is not well informed but is being "filled in" by the speaker or writer. Such effects are achieved precisely by the taking advantage of the backgrounding function of the syntactic slot, not by the absence or negation of that function.

However, we would like to avoid the pitfall of making a choice between an analysis which claims that *if*, or some conditional construction as a whole, is "semantically" biconditional, and one which says the biconditionality is "purely pragmatic." Not only is the boundary between semantics and pragmatics a fuzzy one, but all added implicatures of linguistic usage (whether more or less conventional) are initially cued by the most conventional aspects of meaning, the ones we most comfortably label "semantic."

We are postulating that Geis and Zwicky's "invited inference" of $\sim P, \sim Q$ falls out of the apparatus needed to interpret alternative-based predictive conditionals. In predictives, given the need to understand the prediction as based on the most relevant correlation, the building of a conditional mental space is understood as involving a simultaneous set-up of an alternative mental space in which P does not hold, and therefore $\sim$Q is expected to hold as a result. Although other situations might also evoke parallel inferences, it

seems almost inevitable that predictives should get an *iff* interpretation by this route.

In the next section we will be analyzing the various formal markers which explicitly label a conditional as having a predictive function. The fact that such markers exist shows that predictiveness (with its attendant *iff* reading) is not purely a pragmatically inferred aspect of the conveyed meaning of conditionals, even though it may not be explicitly conveyed by the word *if*. It is a conventional fact about grammar, not merely a productive pragmatic reasoning pattern, that prediction is a central sense of the conditional construction. And in this central predictive use of the construction, the *kinds* of connection pragmatically postulated between the contents of the two clauses are also more constrained than in (for example) speech-act uses of conditionals. Causal connection in particular (whether P is taken to cause or enable Q, or P and Q to stem from common causal sources) is high on the list of plausible construals for conditionals involving prediction of one event conditionally on the occurrence of another event.

In sum, it may be a red herring to ask whether *iff* biconditionality or predictiveness is "in" the semantics of *if* or only in attendant pragmatics. Nobody can reasonably attribute biconditionality to the semantics of *if* itself. It may be more useful to examine other formal markers which can reasonably be argued, when co-present in an appropriate construction, to carry the constructional semantics of prediction and (at least when the prediction is alternative-based) the attendant inference of biconditionality.

When we refer to *predictive conditionals*, therefore, we mean not only some functional class, but also corresponding formal classes: the classes of constructions which are conditionals (and often formally so marked, e.g., with *if*) and also show the formal characteristics we are about to discuss. These constructions, as opposed to other conditionals, are the ones whose conventional interpretation includes predictive usage and alternative space structure, and which conventionally give rise to *iff* implicatures. As we shall see, this makes them particularly suitable for use in context with conditional *then*.

In the next section, we will begin to examine the English grammatical forms involved in conventional expression of conditional predictions involving alternative space construction. Some of these forms will be seen to serve quite general functions, and others to make more specific contributions to the meaning conveyed. Syntax, conjunction choice, and verbal morphology are all involved in these constructions. Once we have seen the forms dedicated to predictive conditionals, we will be able to move on to the applications of related forms to related functions.

2.4 Prediction and epistemic stance: background and backshifting

This section will give an account of the possible choices of verb forms in the protases and apodoses of English conditionals. These formal choices, we argue, express different meanings: prediction or non-prediction, speaker's degree of identification with the contents, the level of interpretation of the conditional relationship, and backgrounding or foregrounding of material. Matters are complicated by the fact that English tense morphology overlaps significantly with the marking of other functions relevant to conditionality.

Fillmore (1990a, b) lays out a comprehensive set of formal aspects of English conditional constructions and gives concomitant semantics for each constructional grouping of forms. Dancygier (1993, 1998) has further suggested more compositional semantic contributions from specific verb forms in the repertory described by Fillmore. We have argued that certain of these formal constructional aspects should be taken precisely as marking mental-space structures, and that this will explain some further interactions between constructions which are not touched on by Fillmore (Sweetser 1996b; Dancygier and Sweetser 1996, 1997). Such an approach adds to the generality and compositionality of Fillmore's analysis.

The first and most salient fact about verb forms in English predictive conditionals is that English, unlike some other languages, standardly uses a simple-present-tense form to express future time reference in the *if*-clause – in contrast with the use of a *will* future for main clauses with future reference. Thus, *If Hiro takes the card, then the data will be transferred to his computer*, rather than *If Hiro will take the card, then the data will be transferred to his computer*, is the standard way to express a conditional relationship between two future events.

The phenomenon of simple present-tense use in *if*-clauses with future reference has been referred to as tense **backshifting** (Dancygier 1993, 1998). Backshifting characterizes not only conditional protases, but also future-reference *when*-clauses and other temporals (*after, before, . . .*). What these constructions have in common is that they are all engaging in building background mental spaces against which the main clause can be used to make a prediction. One way of describing the use of this "present-for-future" backshifting in English, therefore, might be to say that it characterizes the **background clauses** of **predictive constructions**. In these constructions, the "subordinate" clause[7] does not in fact describe an event being predicted, but some event or state of affairs

[7] The division between coordination and subordination is particularly blurred in the case of conditionals, but formally at least, the *if*-clause is subordinate to the apodosis. See Foley and Van Valin 1984 and Verstraete, in press a, b on degrees and kinds of subordination.

which constitutes a background to the prediction made in the main clause. Example (3) is spoken by an older girl at a boarding school, who wants to quiet a smaller girl's tantrum before the teachers hear and break in on the students' recreation hour.

(3) "If she doesn't stop, Miss Minchin will hear her," cried Jessie. (FHB.LP.64)

In (3), the spoilt four-year-old girl's refusal to stop her tantrum is not predicted, but presented as background to the prediction about ensuing unwanted notice from the headmistress. Similarly, in (4), no prediction is made about going to sleep, but a prediction about a dream is made against the background of a scenario where the speaker goes to sleep.

(4) "I can't pretend anything else – while I'm awake," she said. "There wouldn't be any use in trying. If I go to sleep, perhaps a dream will come and pretend for me." (FHB.LP.202–3)

(5) When/After I go to sleep, perhaps a dream will come and pretend for me.

As shown in (5), parallel examples with *when* and *after* work the same way. Although a speaker or writer of (5) would be presenting herself as believing that she will indeed go to sleep, (5) clearly presupposes this, rather than predicting it. What these examples do predict is that she will then (perhaps) dream about a fantasy more pleasant than reality.

We can therefore say that a conditional such as *If I go to sleep, perhaps a dream will come and pretend for me* is used to engage in conditional prediction of the dreaming based on the eventuality of the speaker's going to sleep. In combination with *if*, the simple present verb form in the *if*-clause marks it as not itself predicted, but as background to the main-clause prediction; the *will* in the main clause, on the other hand, marks that clause as a prediction (albeit a conditional one) with speaker validation.

We will postpone to the next chapter a full discussion of the varied functions of *will* and other future markers in English. For the present, we simply note that indeed not every use of the verb form *will* is used to mark future time reference of the content expressed in its clause. Sweetser (1990) comments that English *will*, like other modals, is subject to epistemic interpretation (*He'll be home by now, why don't you call him?* does not mean that he will be home in the future) and that it often carries volitionality as part of its meaning as well as futurity (*See if Joe will help you* does not most plausibly refer to finding out about the interlocutor's future, but about Joe's willingness). For the moment, what we

have established is that *will* has a use which marks the speaker as putting herself on record as the source of a prediction that the event or situation described in the clause will occur at a future time. This is the use commonly referred to as "future" *will*. It is common in the main clauses of predictive conditionals.

2.5 Epistemic stance and mental-space set-ups

Despite their similarities, one major difference between (3)–(4) and (5) is that *when* commits the speaker to the reality of the space described in the *when*-clause, even if that reality will only take place in the future. *If*, on the other hand, seems to indicate that no such certainty is available. This is why *when* and *after* sound less appropriate as replacements for *if* in (3) than in (4). It seems natural to imagine a speaker (in her bedroom, at night) feeling certain that she will eventually go to sleep at some time. But the four-year-old's tantrum must stop some time, and hence it seems odd to imagine certainty that she won't stop, although the speaker has every reason to fear that she will not stop within the desired time frame. Further, the continuous activity of "not stopping" the tantrum is apparently in aspectual conflict with the demands of *when*, which should establish a punctual time when Miss Minchin will hear the noise: *when she stops* would thus be easier to interpret than *when she doesn't stop*. No such aspectual conflict is present in *when I go to sleep, perhaps a dream will come and pretend for me*, since going to sleep (unlike "not stopping") can readily be construed as aspectually punctual.

Returning to the contrasting degrees of speaker commitment or certainty, this contrast between *if* and *when* or *after* turns out to be part of a broader phenomenon, which is by no means restricted to temporal and conditional clauses, namely that of **epistemic stance**. Fillmore (1990a, b) proposes that epistemic stance is a central parameter in any analysis of conditional form and meaning. In a conditional, *epistemic stance* refers to the speaker's mental association with or dissociation from the world of the protasis (P). One of the differences between (6), (7), and (8), for example, is that in (6) the speaker identifies with P as a description of the real state of affairs, in (7) the speaker does not identify with P or with ∼P, and in (8) the speaker identifies with ∼P instead of with P. Of course we have no way of knowing the speaker's true inner views: these forms present the speaker as having certain attitudes, which may also not be irreversible. For example, the speaker in (8) may simply be displaying mild skepticism, or may be totally convinced that P is false, but in either case is displaying an association with ∼P.

(6) "If he decides to file the suit, the hospital's lawyers will be allowed to interview him for discovery . . ." (SP.HT.316)

(7) When he decides to file the suit, the hospital's lawyers will be allowed to interview him for discovery.

(8) If he decided to file the suit, the hospital's lawyers would be allowed to interview him for discovery.
[N.B. Read this as being said with future reference, like (6) and (7).]

In contrasting (6) and (7), we see that *when* marks identification with an assumption, while *if* in itself does not mark such identification with the protasis. In (8), represented in Diagram 2, we note that the "past" verb form *decided* in the protasis specifically marks a dissociated epistemic stance on the part of the speaker towards the content of the conditional: the potential decision to file a lawsuit is viewed as the unlikely alternative stituation, while not filing a lawsuit is implicitly treated as more likely. In Fillmore's terminology, the speaker of (8) commits herself to a **negative epistemic stance** (marked by shading of the appropriate boxes in Diagram 2), while the non-past form in *If he decides to file the suit* takes a **neutral** stance. *When*, in the same terminology, marks **positive epistemic stance**, while *if* does not and is therefore compatible with forms which take either a neutral or a negative stance.

2.5.1 Positive versus neutral stance

The difference between positive and neutral epistemic stance is crucial in making a clear distinction between *if* and *when*, which are otherwise quite similar. *If* and *when* both set up predictive reasoning, using their P clauses as background to the predictions expressed in the Q clauses, as in (9) and (10) below.

(9) "When she awakens she will think a magician has been there." (FHB.LP.176)
[Speaker plans to leave gifts for a sleeping child.]

(10) If she awakens she will think a magician has been there.

In our analysis, both *when* and *if* mark clauses whose function is to build a background space within which the main clause holds. *When* further explicitly marks cotemporality of some aspect of the situation described in the main clause with a landmark time established by the space-building state of affairs set up in the *when*-clause, while *if* instead marks a relation of causal contingency. Also both sentences are readily interpretable as predictive. Furthermore, it seems clear that a very salient and accessible part of the readings involves contrasting alternative spaces, and the use of those spaces to predict the time of one event

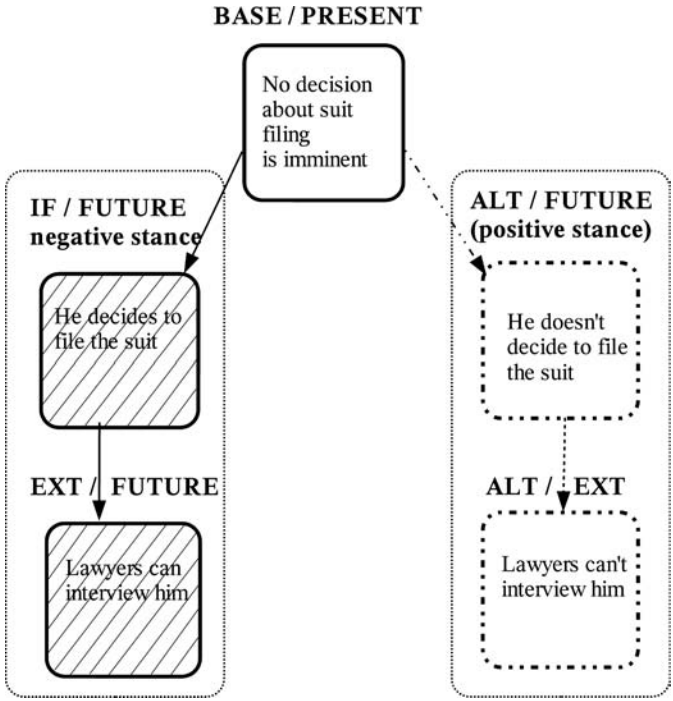

Diagram 2 *Example (8) If he decided to file the suit, the hospital's lawyers would be allowed to interview him for discovery.*

based on the time of the other. Since *when* marks positive epistemic stance, the occurrence of Q is predicted unconditionally, and the occurrence of P is assumed to have already been part of some accepted projection of future events. Example (9) therefore asserts an unconditional prediction of the girl's reaction against a presupposed background of her projected awakening; it further predicts the time of the reaction as dependent on the time of the awakening. It is this last part of the interpretation which is crucially similar to conditionals, and which involves the construction of alternative spaces. Unconditional future prediction does not involve alternatives; however, the assertion of dependency between the time of one situation and the time of another sets up our familiar contrast between the mental space (determined by P) wherein Q obtains, and other present or future spaces wherein Q does not obtain.

The issue of the epistemic stance of *if* and *when* correlates with another constructional parameter. A clause which serves to build background towards which a positive stance is taken is by its nature *presupposed* and not *asserted*;

when-clauses are therefore presupposed. *If*-clauses, on the other hand, are presented as non-positively viewed: the speaker does not commit to a fully positive stance toward this material. When used as background to a prediction, they cannot therefore count as fully presupposed material, any more than the conditional prediction itself is fully asserted. In *If she awakens, she will think a magician has been there*, the awakening is not presented as presupposed (which seems strange in this context), and the the girl's reaction is only conditionally predicted, rather than asserted. We will reserve the term *presupposed* for backgrounded material towards which the speaker takes an unambiguously positive epistemic stance, while speaking of conditional clauses as being "backgrounded" but not presupposed.[8]

In summary, then, *when* contrasts with *if* in that (a) it constructs a temporal space, not just a more general kind of situational space, and (b) it obligatorily adopts a positive epistemic stance towards the situation described in the *when*-clause, while *if* takes a neutral stance. But like conditionals, *when*-constructions have an important conventional use to prompt the building of alternative-space-structured predictive reasoning. We shall also show in Chapter 4 that *when*-constructions can be given specific and generic indefinite readings, which overlap considerably with the equivalent readings of conditionals.

In spite of all the similarities, *when* and *if* are still perceived by speakers to be crucially different because of their epistemic stance. Occasionally, the speaker will want to use both conjunctions together to highlight the contrast between them, but also to express her attitude to the event chosen as background to an ensuing prediction. Interestingly, in such cases the conjunctions may be used in different order with a somewhat different effect.

(11) It has become fashionable to say that if and when George W. Bush makes it to the White House, Dick Cheney will be the de facto president. (Paul Krugman, "Cheney gets Vulgar," *New York Times*, Dec. 6, 2000: A-31 [Op-Ed])

(12) The moment you stepped on to the gangplank, you committed yourself – not to America, but to a strange and frightening sea ritual, which would inevitably transform the person you had been on the dock into the person you would eventually become when, and if, you reached the far shore. (JR.HMH.2)

[8] We would like to stress that neither of the terms we use (*positive stance* and *presupposed*) correlates in any way with *factuality*. Some researchers see echoic uses of *if* as factual; others, notably Declerck and Reed (2001), talk about factual meanings in predictive uses of *when* and some non-echoic uses of *if*. We find both uses of the term inaccurate and misleading (see Dancygier 2003 for more discussion).

In (11) the writer starts with *if*. This seems necessary; at that stage of the long legal dispute over the results of the election, it would not have been acceptable to present George W. Bush as the definite winner. However, the writer wants his readers to see Dick Cheney's future role as directly temporally contingent on Bush's election, within the speculative world, and hence moves from *if* (building that space) to *when* (establishing a close temporal dependency within it).

In (12), for comparison, the writer starts with *when*. He is reflecting on a fate of a European emigrant headed for America. It is thus natural for him to consider the arrival to the "far shore" as certain. At the same time, being an experienced sea traveler, he cannot help but keep it in mind that the voyage was a perilous undertaking. Hence his "afterthought" switch to a less positive stance – after all, accidents did happen. What is most interesting about such cases is the way in which the writers draw the readers' attention to the existence of varying degrees of positive and neutral epistemic stance by conspicuously switching stance "mid-stream".[9]

2.5.2 Since: positive stance and space evocation

Positive stance is also the constructional parameter which helps us distinguish *if* and *since*. It has been noted repeatedly that *if* is often used in contexts in which *since* might readily be substituted for it. This might seem surprising initially, given that they are semantically quite distinct. *Since* is basically temporal and causal, not conditional. One other crucial distinction between the two conjunctions is that *since* adopts a positive epistemic stance towards its complement clause, while *if* does not.

However, *if* and causal *since* can be seen as isofunctional along a different parameter: both can be used to evoke a mental space accessible in the context, rather than to construct a new one. Indeed, space evocation seems to be the central function of causal *since*. Examples like (13) and (14) show how *since* evokes material accessible in the preceding discourse:

(13) "He was laughing with you, not at you,"
"Well, since I wasn't laughing myself, that statement seems inaccurate. But if you mean he wasn't laughing unkindly, I believe you." (AT.AT.183/4)

In (13), the second speaker corrects the first speaker's description of an event in a way which more accurately describes the speaker's involvement. Speaker 2 evokes contextually shared knowledge (*I wasn't laughing*) to call into question the implicatures as well as the direct statement of Speaker 1. *Since* is also used

[9] Thanks to Karen Sullivan for sharing her insights on *when and if* and *if and when*.

evocatively in (14), where it merely reminds the reader of the information which has been saliently present in the preceding part of the story, but which has to be recapitulated to be used as an explanation of the referent's behavior.

(14) It was as though, since his race was double and his status ambiguous, he had decided to multiply the ambiguity indefinitely. (CK.YLD.62)

Evocation suggests reliance on the hearer's/reader's familarity with the context. However, *since* is also useful if the speaker wants to present some information not entirely obvious from the context, but which she believes to be a sufficient explanation of the surrounding situation.

(15) "Well, since I seem to be the maitre d'," she said, "I'll show you out back where the bride and groom are." (AT.AT.269)

In (15), the woman announces her role at the wedding party to justify the offer to take the guests to where the bride and the groom are. The newcomers could have perhaps guessed, but since she is also a member of the family, her role of maitre d' would not be obvious without the explanation.

As the above examples suggest, the positive stance expressed by *since* is used in a specific manner: to evoke factual information from the context. The *context* can include the immediately surrounding situation, the discourse context, and/or a span of a narrative text. In each case the information evoked is necessary for the hearer to see the validity of the following main clause, which otherwise would not have been obvious. Without the *since*-clause, (15) could be understood as an inconsiderate way of avoiding further conversation (which would be a very likely case in the context of the story), while in (14) the content of the main clause might simply be difficult to process, as it would put the burden of retrieving necessary information on the reader.

The positive stance can further be exploited in using *since* to introduce facts, rather than just evoke them:

(16) Since he had pictured an active holiday, he had brought no reading matter; and he was not in a mood for his own thoughts, which would simply return to Jill. (CK.YLD.161)

In (16), the content of the *since*-clauses only pretends to be evocative. The clause represents information which is not intended to be considered new, even though it may in fact be totally new in the context of the story. The fact that the information is presented in the scope of *since* grants it the speaker's positive stance, without giving it any special topical status. The clause is meant to be

added to the content of the hearer's base space, so that the import of the ensuing main clause can be noted immediately, without further elaboration.

In spite of the difference in stance, *if* and *since* can often (but certainly not always) appear in similar contexts. We could imagine the speaker of (15) phrasing her explanation with *if*: *If I am to be the maitre d', I'll show you out back where the bride and groom are*. The P-clause would still perform the function of evocation – highlighting the aspects of the context known to the speaker and the hearer that burden the speaker with the role of maitre d'. But without the positive stance of *since*, the speaker's offer to take care of newcomers to the wedding party is more tentative and presents her as personally responsible for taking the role. For comparison, *if* would not be acceptable in (16), where the speaker/narrator can be pictured only as a provider of relevant background facts.[10]

If and *since* may thus share the evocative space set-up, but *since*, contrary to *if*, marks positive epistemic stance, like *when*. At the same time, unlike *when*, it does not share the predictive function of *if*.

2.5.3 Negative stance and verb forms

We have noted above that difference in stance between examples such as (6) and (8) is marked first of all through the use of verb forms. At the same time, we have stated that the choice of verb forms also signals the status of an *if*-clause or a *when*-clause as providing background to a prediction. We thus need to distinguish carefully between verb forms signaling *backshifting* and those signaling *negative epistemic stance*.

Backshifting, as a basic generalization, demands a simple present form to express future reference and characterizes the clause as background to a prediction, i.e., as material which is not itself asserted or predicted, but which forms the basis for an assertion or prediction. In future chapters, we will be talking about the way that other tense requirements are coordinated with such forms. For example, an indirect quote of a future-predictive conditional, in a past narrative, would superimpose the past narrative tense on the tense requirements of the predictive construction. The result would be something like *Jessie said that if Lottie didn't stop crying, Miss Minchin would hear her*. In saying that the backshifted form in the first clause is "present," therefore, what we really mean is that the "backshifting" has removed the need to mark futurity relative to narrative time in the *if*-clause; relative to the narrative time, Lottie's not

[10] For a broader discussion of the hearer's and speaker's perspectives in the use of *since* see Dancygier and Sweetser 2000.

stopping is marked as it would be if it were "present," i.e., the same time. In the main clause, however, the auxiliary *would* combines past and future marking, indicating overtly a future time relative to the narrative past.[11]

On the other hand, the verb forms marking negative epistemic stance, which we will refer to as **distanced** verb forms, are essentially one tense level more "past" than their non-distanced counterparts (with some special exceptions such as singular subjunctive *were*). The use of distanced verb forms expresses negative epistemic stance and occurs in both *if*-clauses and main clauses. Mental Spaces Theory provides a useful framework to describe both backshifting and distanced verb forms, as we shall see.

The marking of negative epistemic stance is by no means limited to conditionals or even to predictions but may be conditioned by a variety of factors, including the semantics of a particular matrix verb such as English *wish*, which is known to require distanced verb forms (see Fillmore 1986, 1990a). *I wish he had a hotel reservation* may be contrasted with the epistemically neutral *I hope he has a hotel reservation*; *hope* does not, unlike *wish*, convey the speaker's negative stance toward the content of the hope. The use of the verb form *has* with *hope*, and the distanced *had* with *wish*, follows from the need to construct what Fillmore has called a unified epistemic stance in interpreting an utterance; we cannot use a positive-stance verb form in the complement of a verb whose semantics is that of the agent's negative stance towards the complement.

Of course we are not always concerned only with the *speaker's* epistemic stance; in complements of *wish* or *hope*, it is the wisher's or the hoper's stance which is reflected in the verb forms of the complement, although the use of these verbs may further involve the speaker in the agent's stances, if no intervention occurs to tell interlocutors otherwise. For example, a speaker who says *Jessie wishes Lottie would stop crying* need not necessarily implicate herself in the wishing, but may potentially implicate herself in the epistemic stance – overtly attributed to the described wisher, Jessie – that Lottie is not all that likely to stop. This is an example of Fauconnier's (1985 [1994]; see also Fauconnier and Sweetser 1996) "Presupposition Floating" from a daughter space to a mother space.

In general, the use of apparently "past-tense" verb forms in the background clauses of future-reference English conditionals is limited to predictive conditional sentences where the speaker does not identify with the contents of the

[11] It is important not to confuse this "obligatory" use of present with future reference (which we are labeling "backshifting"), with more general present-for-future uses in English. English predictive conditionals do not allow future *will* as an alternative in the backgrounded *if*-clause.

protasis. For this reason, distanced examples like (8) have no future predictive counterpart which is marked with *when* rather than *if*. Replacing *if* with *when* (*when he decided to file the suit, the hospital's lawyers would be allowed to interview him*) would force a simple past-tense reference reading of the verb form *decided*, rather than a distanced and backshifted future reading, because the positive stance of *when* cannot coherently combine with the negative stance expressed by a "distanced" reading of *decided*.

Lexical context within the protasis may at least encourage an interpretation involving a committed epistemic stance, even with the uncommitted but non-positive *if*.

(17) "And *if* this guy figures out the relationship between us, which he will if he puts any energy into the matter, then he'll know it was you with me at the Coolis hospital . . ." (SP.HT.311)

In (17) the speaker (private detective V. I. Warshawski) chooses to use *if*, but her added comment, *which he will if he puts any energy into the matter*, strongly suggests that her stance towards the scenario of "this guy" figuring out the relationship between herself and her friend and neighbor (the addressee) is more positive than truly neutral. The rephrasing in (18) with *when* conveys very much the same message as the original, although it does explicitly mark positive stance with *when*. The author's choice of *if* in (17) is non-positive, but in context contributes to an almost fully positive overall reading.

(18) And *when* this guy figures out the relationship between us, which he will if he puts any energy into the matter, then he'll know it was you with me at the Coolis hospital . . .

We shall be arguing in later chapters that *if* marks the speaker's lack of fully positive stance towards the contents of the clause; that is, *if* is not truly neutral in stance, but is indeterminate between a range of stances including almost everything except complete positive stance towards P or ∼P. However, when everything else combines to push for a positive-stance reading, the degree of non-positive stance communicated by *if* may be minimal, and so the resulting difference between (17) and (18), in context, is minimal too.

Positive or negative epistemic stance need not coincide with any particular affective evaluation or "stance," positive or negative. Warshawski pretty clearly would not be pleased to have the bad guys figure out that her elderly neighbor is involved in her case; but she does think it likely that they will. And we reiterate that when we say that verb forms are used to *express* a particular epistemic stance, we do not mean that the speaker necessarily honestly possesses the

attitude expressed. In general, however, such forms commit the speaker to having portrayed herself as having the stance in question, or to certain things being true in her Base reality space.

2.5.4 Coherence in stance

Negative stance marking is not limited to a single clause but often pervades an entire multiclausal construction, as in the case of conditionals. An *if*-clause marked for negative epistemic stance (presumed in the absence of other attribution to be the speaker's own stance) sets up a space toward which the speaker takes negative stance. The same background clause will then regularly be subject to both backshifting and distancing, in layered fashion, as in (8) above or (19).

(19) "My family would take it kindly if I changed my name to Smith." (AT.PP.36)

These examples are essentially parallel to the non-distanced predictives, except for the verb forms which mark epistemic stance. The reader of (19), for example, assumes that the prediction of family satisfaction is only made within the mental space wherein name changing takes place, and not in the alternative space where he intends to retain his family name. But the distanced verb forms mark the speaker's treatment of this name-changing space as epistemically distant. We understand, and we imagine his fictional addressee to understand, that he does not mean to change his name. We therefore construe the contingent prediction of family satisfaction to be unlikely to be realized as well.

When a basis for a prediction – or background to a reasoning process – is viewed as implausible by the speaker, then it is normal for the prediction or conclusion itself to be treated as implausible as well. In Fillmore's terms, we would get an *incoherent* epistemic stance if we tried to interpret a speaker as taking a positive or neutral stance towards a prediction based on background which is marked for negative stance. Hence we find *If he decided to file the suit, the hospital's lawyers would be allowed to interview him for discovery*, and not *If he decided to file the suit, the hospital's lawyers will be allowed to interview him for discovery*, where the interpretation is that the decision time is still in the future.

2.6 Conclusions

A major class of conditional constructions conventionally express *alternative-based prediction*. They do this by expressing the correlation between an

if-space P and a situation Q which holds in P. Particular verb forms are associated with the predictive use of conditional space building; for future reference, the basic forms in English are simple present in the *if*-clause and *will*-future in the Q-clause. Conditional predictions are relevant only via an assumption of alternativity between the *if*-space (wherein Q is conditionally predicted) and some alternate space wherein ∼P holds, and therefore (since Q correlates specifically with P), ∼Q holds as well. This alternative space construction, indispensable in constructing a relevant reading of the predictive conditional, essentially constitutes the much-discussed *iff* implicature which attaches to such conditionals.

A given mental space, including conditional spaces, will have some epistemic stance attached to it. The conjunction *if* is associated with non-positive-(neutral or negative) stance space building, in contrast with positive-stance conjunctions such as *when* and *since*. Choice of verb forms also regularly reflects epistemic stance; we shall globally use the term *distanced verb forms* to refer to uses which mark negative epistemic stance in particular; non-distanced verb forms are usually ambiguous over the positive and neutral range of epistemic stance.

3 *Tense, epistemic distance, and embedded spaces*

"If I'd seen the machete, I'd have handled it differently."
(Headline, *Vancouver Sun*, June 6, 2001)

3.1 The polysemy of past-tense forms

As noted at the end of the last chapter, distanced future-reference conditionals use past-tense forms rather than future ones. Out of context, (1) could be an assessment of future eventualities, viewed with negative epistemic stance:

(1) If he decided to file the suit, the hospital's lawyers would be allowed to interview him for discovery.

However, (1) could equally well be a past narrative description of a conditional situation – a situation which was neutral in stance and future relative to the characters' situation.[1] Given a form like (1), only context tells us whether the past-tense verb forms are marking tense or epistemic stance. Fleischman (1989) has discussed the pervasive crosslinguistic correlation between past-tense marking and distanced stance. It has also been noted that tense marking is one of the most basic cues for relationships between mental spaces (Fauconnier 1985 [1994], 1997; Cutrer 1994; Mejías-Bikandi 1996).

In example (2) there is no ambiguity. The conditional presented is in past-tense form not because it is distanced epistemically, but because it is embedded in a past-tense narrative space.

(2) The gun had dug a deep bruise into my side when I tumbled from the boxcar. I'd be sore for four or five days, but if I was careful I'd be okay . . . Lotty dispensed that verdict at her clinic Sunday afternoon . . . (SP.HT.233)

[1] The reader may recall that the example was modified from a direct quotation of a character who says *If he decides to file the suit, the hospital's lawyers will be allowed to interview him for discovery* (Chapter 2).

Presumably what Lotty (the examining doctor) said was in fact something like *You'll be sore for four or five days. But if you're careful, you'll be okay*. If the author had chosen to present it as a direct quotation, then future forms (reflecting the character's perspective on the timeline) would presumably have been used. But in this indirect quotation, we have a layering of past marking (reflecting the narrative perspective on the timeline) onto the "present" and future forms which would express the quoted character's temporal perspective (*are* + past = *was, will* + past = *would*). The first-person narrator also shifts the pronouns from *you* to *I* in her indirect quotation. Although it might be possible to construct a negative-stance reading for *if I was careful I'd be okay*, in another context, this would involve construing the speaker as admitting that she was unlikely to be careful (and therefore okay). Overall, the contextual pressure for a past rather than a negative-stance reading is overwhelming in this case.

Notice that in examples such as (2) the subordinate spaces are in fact embedded within the mother spaces. What people say or think in the past is a part of that past. And past conditional contingencies are also part of the past. We will thus treat cases like (2) as instances of *mental-space embedding*.

In this chapter, we shall first of all distinguish between the uses of "tense" in conditionals as a marker of negative stance towards the P-space, and the uses of the same set of forms as markers of mental-space embedding. We shall then examine layerings of tense marking, as in (3). Such "counterfactual" examples involve both past-tense marking (the referent situation is in the past) and epistemic distance, hence past-perfect forms are used, with two morphological layers of marking: *had seen* rather than *saw*.

(3) "If I'd seen the machete, I'd have handled it [the situation] differently."

And finally, we shall look at the uses of tense marking as a cue for mental-space embeddings – which include both temporal and negative-stance uses.

3.2 Epistemic distance

Distanced-stance[2] examples like (4) have been labeled as *hypothetical*, as *irrealis* or *counterfactual* (or even, with perhaps the greatest vagueness, *subjunctive*).

(4) "If I was running a car factory, I wouldn't let workers drive the cars home or borrow tools . . ." (NS.SC.116)

[2] For work on distance and epistemic scale, see Akatsuka 1985; for a general treatment of the verbal forms involved, see Palmer 1974; Quirk et al. 1972, 1985. See also Lewis 1973 on counterfactuals.

In its narrative context, the interpretation of (4) is clearly intended to be hypothesizing a situation which is non-realized and counter to the "facts of the matter" as understood by the narrative's characters. The fictional speaker does not own a car factory. So in context, (4) is given a counterfactual *interpretation*.

However, we do not want to say that the *forms* involved are conventionally counterfactual, because it seems clear that such conditionals are by no means restricted to genuinely counterfactual uses. Comrie's (1986) discussion of examples such as *If you got me a cup of coffee, I'd be very grateful* has clearly shown that these verb forms are compatible with uses where the speaker may strongly suspect that the event will occur, and certainly does not mean to present herself as believing it to be counter to fact. Of course, in the very weak sense of being currently non-real, the situation described is counter to fact; but the use of *counterfactual* on this basis would lead us to call all futures (or all irrealis forms) counterfactual. Non-conditional, positive-stance future predictions are about an expected future (unrealized) development of reality. They cannot be seen as counter to fact, since there are as yet no future "facts" for them to contradict, and indeed they are expected to become future facts. We reserve the term *counterfactual*, therefore, for specific interpretations involving a construed contradiction with "reality."

In Comrie's example, the speaker may choose to present herself as distanced from a belief that the addressee will get her a cup of coffee, simply to avoid any appearance of presuming that her whim will dictate her addressee's actions. She speaks as if the normal expectation is that the addressee won't get her a cup of coffee; but this does not mean that she commits herself deeply to the falsity of the claim that the addressee will get her some coffee. On the contrary, she has every hope that this uncertain scenario will be the one that gets realized – and if it is realized, nobody can tell her that her presuppositions about facts have been contradicted. Only her degree of displayed commitment is involved; no claims of (counter)factuality are on the table. Such examples are thus no more "counterfactual" than their non-distanced counterparts; that is, someone saying *If you get me a cup of coffee, I'll be very grateful* is still seeing the getting of coffee as not yet realized and not certain to be realized. Unlike (4), *If you got me a cup of coffee, I'd be very grateful* is not even plausibly counterfactual in *interpretation*, let alone conventionally counterfactual in form.

The term *irrealis* is just as unhelpful as *counterfactual*. As just mentioned, all predictive conditionals (not just negative-stance ones) are irrealis in the sense that they do not portray situations as being part of reality (full positive stance). Furthermore, the category *irrealis* also covers non-conditional predictions such

as futures, and other categories like subjunctives. And it therefore covers even those forms which mark positive epistemic stance. The brother who said *If I tie my handkerchief around it, it'll stick* was using *if* rather than *when* to mark a neutral rather than a positive stance towards the imagined future situation. If he had said *when*, he would have marked the situation as the anticipated future reality (positive stance), even though not presently realized (hence officially irrealis). So the term *irrealis* does not help us make the relevant contrasts between conditionals and non-conditionals, or positive and non-positive epistemic stance.

In the same way, we might say that all predictive conditionals (and perhaps others) are *hypothetical*, in the sense that they hypothesize a situation and base a prediction on it. But this term is used variously to refer to all predictive conditionals and to negative-stance ones in particular. We find the parameters of prediction and epistemic stance to be more precise, and more descriptive of the semantics and pragmatics of conditional constructions.

Those who use the term *hypothetical* for examples like (4) may then reserve the term *counterfactual* for uses such as (5), which refers to a past correlation, not a future one.

(5) "If I'd seen the machete, I'd have handled it differently." (Headline, *Vancouver Sun*, June 6, 2001)

Example (5) is a quote taken from Jon Kingsbury, mayor of the town of Coquitlam, after he managed to confront and stall an escaping assault suspect until the police arrived to arrest him. Although his action is being treated as local heroism, he is saying that he wouldn't have taken the risk if he'd known the suspect was armed. Examples like these are "classical" cases of counterfactuality, because in context the content of both clauses is presented not just as unlikely, but as "contrary to fact."

The two "layers" of past morphology – one representing past tense, and the other negative epistemic stance – are here combined with predictive tense use (future marking in the main clause) to give the observed forms, *had seen* and *would have handled*. It seems natural that forms which express negative epistemic stance with respect to such past conditional predictions would often be interpreted counterfactually. Given that speakers may often be assumed to know what actually happened in a past situation, negative epistemic stance towards a past conditional eventuality can readily be interpreted as meaning that the speaker intends that eventuality to be viewed as counterfactual.

However, it has been pointed out that even with past temporal reference, this "contrary to fact" reading is dependent on context (Karttunen and Peters 1979, Comrie 1986). For example, (6) shows the same formal verb morphology observed in (5).

(6) At that moment, if I'd tried to slip further into the bushes he would have seen me. (AG.TB.281)
[The narrator is trying not to get shot by the guard of a marijuana field.]

Example (6) could in fact be followed up by and *I wasn't certain whether I had been visibly moving further into the bushes for just a moment too long, so I was scared stiff that he might have seen me and I might get shot*. And therefore, it cannot be part of the logical semantics of (6) that it portrays the contents as absolutely contrary to fact.

We therefore refrain from using the term *counterfactual* to refer to any of the constructional uses of verb forms discussed so far. In section 3.3, we discuss some forms which might in fact justifiably be labeled as counterfactual.

As mentioned above, the relationship between past and "distanced" forms is not just a fact about English grammar, or about conditional forms. James (1982) notes the strong crosslinguistic connection between past and conditional forms. Fleischman (1989) argues persuasively that there is a crosslinguistic tendency to extend forms with basic past-tense meanings ("temporal distance") to a variety of social and epistemic distancing functions (e.g., politeness and counter-to-expectation or "counterfactual" marking). Langacker (1978) labels the past forms of modals and other auxiliaries as *distal* (a terminology also adopted by Sweetser 1990) in a general sense which includes both relative past time reference and also epistemic distance.

We shall not here examine all the details of English "past" form usage, some of which clearly derive historically from the use of distinct subjunctive forms. However, for a modern English speaker, the extensive identity of past and negative-epistemic-stance forms is surely a central fact of grammar. One more layer of "past" morphology generally adds one more layer of "distance," either temporal or epistemic. There is, so to speak, one layer of this "distancing" in the basic backshifting we see in predictive conditionals, where present-tense forms represent future in protases (with no backshift in apodoses – *If you get me a cup of coffee I'll be grateful*). And there is an added layer in a sentence like *If you got me a cup of coffee I'd be very grateful*, where a genuinely negative epistemic-stance is represented by the use of a past form with future reference

in protases (with the conditional *would* – historically a backshifted future – in apodoses).[3]

We should add a final note about ambiguity in tense forms. English perfect forms, unlike past forms, are not used as epistemic distance markers. (We don't say *If you have gotten me a cup of coffee, I would be so grateful* to mean that I'm presenting it as an unlikely future possibility. We use *got*, not *have gotten*).[4] However, English has only a single pluperfect tense form, which does double duty for past and perfect construal of events relative to some temporal landmark earlier than the present: a pluperfect such as *She had gone to Paris* may record either that at the past time the speaker could have said *She went to Paris* or that she could have said *She has gone to Paris*. Similarly, when either a past or a perfect imagined situation is combined with negative epistemic stance, the same pluperfect verb form will be used.

The result of this system is considerable formal ambiguity between the expression of past tense and the expression of negative stance in English – at least, to the extent that particular forms are often ambiguous. Context usually resolves these ambiguities in actual utterances.

3.3 Degrees of distancing

There are multiple degrees of negative epistemic stance. For example, (7) and (8) do not express identical viewpoints on the part of the speaker, although they both express the speaker's dissociation from belief in the mental space described.

(7) If he was President, he wouldn't know how to deal with economic globalization.

(8) If he were President, he wouldn't know how to deal with economic globalization.

[3] The use of *were* (discussed in Section 3.3) as an extra strongly negative-stance form cannot of course be predicted by the generalization just mentioned. The more archaic use of *be* as a subjunctive/conditional form – which we shall not be discussing – is even less part of the regular modern system.

[4] This could be taken as an added indication of the genuine present-tense status of perfect forms, which also occur (unlike pasts) with adverbs such as *now*. For work establishing the relationship between the past and present components of the perfect AUX, see Reichenbach 1947; Comrie 1981; Anderson 1982; Hopper 1982; Fleischman 1983; Langacker 1987; 1991a, b; Klein 1992; Michaelis 1993, 1994a; Schwenter 1994.

For many American speakers, at least, the real "subjunctive" form in (8) is more distant than the simple "past" in (7): a statement like (7) might be said in imagining a particular actual presidential candidate being in office, and (8) in imagining the speaker's old high-school friend as President. This particular contrast is not, of course, morphologically present in the full range of English verbs, but is a relic in the first- and third-person singular paradigm slots of *be* (in the second person and plural, where *were* is the simple past form, no *was/were* contrast exists). What is interesting is that speakers interpret this morphological relic in terms of epistemic alignment contrasts.[5]

The following two examples from *Snow Crash* exemplify the contrast between *was* and *were* as distanced forms.

(9) If Da5id weren't a hacker, Hiro would despair of his ever having enough brains to do anything. (NS.SC.71)

(10) "If I was running a car factory, I wouldn't let workers drive the cars home or borrow tools . . ." (NS.SC.116)

The thinker of (9), who uses the extra-distanced singular *were*, not only knows that Da5id (a long-time friend of his) is a hacker but acknowledges him as a core member of the elite community of super-smart super-hackers. Although Da5id may manifest his intelligence only in his hacking, rather than in social relationships, brains are one of his most salient characteristics. This example is thus strongly distanced.

In contrast, (10), which uses the basic distanced form *was*, is uttered by a business man and politician who, although he does not run a car factory, does run a huge international computer company, and is emphasizing parallels between the two situations. He continues, *But that's what I do at five o'clock each day, all over the world, when my hackers go home from work*; that is, letting his hackers go home with their brains full of his proprietary data is just like letting car-factory workers drive the factory's cars home. He goes on to say that he has plans to prevent his hackers from walking around freely with his data. So despite the apparent distancing and counterfactuality, he is much more closely identified with the scenario expressed in (10) than the thinker of (9) is in his conditional scenario.

[5] The paradigm is actually more complex and varied across dialects; the use of *was* as a distanced second-person form occurs in British dialects, though not in the standard. First-person singular distanced *was* seems to have considerable individual variation, but does occur in a wide range of dialects; however, some speakers only have *were* as a first-person distanced form. (Older forms of British English show that *was* once had a broader use as a distanced form with all persons and numbers.)

Still, none of the forms we have examined seem obligatorily "counterfactual." Not even the *were* forms seem to genuinely demand that the speaker or thinker responsible for them must fully believe in the falsity of the relevant proposition (Comrie's speaker might also have said, non-counterfactually, *If Sue were willing to get me a cup of coffee, I would be grateful to her forever*.).

However, English does contain a family of constructions which may more accurately be described as counterfactual. Fillmore (1990a) has noted that many Americans' colloquial usage includes forms in *if*-clauses which (when, somewhat unusually, they are written) may be written down as *hadda, woulda* or *had've, would've* or even *had of, would of*. In contrast to the system we have been discussing, where a strong negative epistemic-stance form with past reference might be like (11), these speakers use forms like (12):

(11) If I'd (= I had) known you were coming, I'd have (= I would have) stayed home.
[The Q-clause auxiliary complex, though *not* the P-clause one in this example, might also be written "I'da" or "I'd've" in writing colloquial pronunciation.]

(12) If *I'da/I'd've/I'd of* known you were coming, *I'da/I'd've/I'd of* stayed home.

Some speakers can produce expanded versions of the (12) verb forms, giving rise to sentences like *If I woulda known you were coming, I woulda stayed home* or even *If I hadda known you were coming, I woulda stayed home*. We say expanded versions because, as Fillmore observes, it seems fairly clear that these *if*-clause auxiliary possibilities are derived from "unpacking" the contracted auxiliaries, although in origin these were not contractions of the (non-occurring) form *had have*, nor of the form *would have* (implausible in an *if*-clause prior to these developments). Historically, speakers apparently observed forms such as *woulda* and *coulda* and *shoulda* in consequent clauses of conditionals, where they marked negative stance and also alternated with forms such as *would have*, *should have*, *could have*. These forms produced analogical *hadda* negative-stance forms. (Negatives such as *hadn'ta* came into being alongside *couldn'ta*, *wouldn'ta*, *shouldn'ta*.) By a further analogical step, the back-formation *had've* or *had of* was derived from *hadda*. And speakers also apparently extended these negative-stance forms from use in consequent clauses to use in *if*-clauses as well.

A major point of linguistic interest in these forms is that they are the only true "counterfactuals" in modern English. Unlike the distanced forms we have so far discussed, which extend to various implausible future-reference uses, these *-a* forms seem necessarily to convey the speaker's belief that the described situation does not hold in the reality space. Dialectal British usages of this kind appear to

be reflected in the following passages from Dorothy Sayers' *The Nine Tailors*. Both passages are conversations between the same pair of brothers, Will and James Thoday. Each of these two brothers mistakenly thought that the other one was the murderer of Jeff Deacon, a criminal who threatened them. Will had decided to bribe Deacon and put him on a ship out of England but was prevented by an incapacitating bout of flu. Before becoming delirious with flu, he had left Deacon tied up. James, who then found Deacon inexplicably dead, certainly could not have "gotten him away," but did bury the body in the mistaken belief that Will was the killer.

(13) (James:) "You mean to say, it wasn't you did away with him?"
(Will:) "Of course not . . . I'd offered the brute two hundred pounds to go back where he came from. *If I hadn't a-been ill, I'd a-got him away all right, and that's what I thought you'd a-done*. My God! when he come up out o' that grave, like Judgment Day, I wished you'd killed me along of him." (DS.NT.273)

(14) (James:) "Forgive me, Will – I thought you'd done him in . . . but I didn't blame you. Only I wished it had happened in a fair fight."
(Will:) "If it had happened, Jim, it *would a-been* in a fair fight. *I might a-killed him, but I wouldn't a-killed him when he was tied up*." (DS.NT.280)

The *-a* forms in the *if*-clauses in this passage seem to convey both strong counterfactuality, and strong alternativity: that is to say, they highlight not only the irrealis nature of the situation referred to, but also the contrast between that situation and the absolutely opposite one which is assumed to actually obtain. This does not mean that every *-a* form in the passage is unambiguously "counterfactual" rather than simply indicating strong negative epistemic stance; recall our discussion (above) of the strong tendency to attribute counterfactual stance to a speaker's expression of negative stance about past events. Context is also a strong contributing factor here: by this point, the reader knows that these events should be thought of as the opposite of what in fact did happen.

Perhaps most interesting formally, however, is the form *hadn't a-been* in (13). This is one of the forms which can have no etymological source in regular morphological past-tense "layerings"; there was no form *hadn't have been* or *had have been*, as a source for such a contracted form. Only analogy with other negative-stance uses of compound past forms can have resulted in this usage. Its appearance here is consistent with Fillmore's suggestion that these *-a* or *-ve* or *of* forms are in fact a separate morphological category from standard distanced forms (although a category with significant formal overlap with those standard

forms). Indeed, we see no possible non-counterfactual interpretation for *if I hadn't a-been ill*.

It is difficult to get the data for a more complete treatment of the English non-standard counterfactual construction, since not only is it rarely represented in written sources, but (as we have noted) it is transcribed in a wide variety of ways when it does appear. However, such forms are widespread in many American dialects, and their appearance in Sayers suggests that they may be more attested in Britain than the grammar books would have us believe.

3.4 Perspective and mental-space embeddings

We now turn to the interaction of conditional constructions with other space-building mechanisms. This section focuses on the complex linguistic cueing of viewpoint and perspective by the layering of multiple kinds of space-structure markers. Formal marking of tense and negative stance, in particular, is conventionally used in global ways, to "track" space embedding relationships, as well as in the directly motivated uses we have already discussed (see Cutrer 1994).

We shall first briefly consider examples of conditional spaces embedded in past narrative spaces. In (15) (=[2]), the first sentence shows that we are in an ongoing first-person past narrative. The second sentence sets up a predictive conditional space, embedded in that narrative space. By the third sentence, it is clear that the prediction is not the narrator's own assessment – although formally that might have been possible. Instead, it is her memory of a doctor's past judgment (who presumably said "You'll be sore for four or five days, but if you're careful you'll be okay."). This is classic Free Indirect Speech, in literary terms; as commented in section 3.1, it superimposes the narrative space's temporal viewpoint on that of the quoted speech space.

(15) The gun had dug a deep bruise into my side when I tumbled from the boxcar. I'd be sore for four or five days, but if I was careful I'd be okay . . . Lotty dispensed that verdict at her clinic Sunday afternoon . . . (SP.HT.233)

We note here one exception to the extra "layer" of past morphology: the narrator might be expected to say *had tumbled*, as well as *had dug*. This would have been perfectly grammatical but is not apparently necessary. Added embedding in a *when*-clause may be allowing a re-setting of perspective here: the narrator's viewpoint does not have to be projected down into the *when*-clause, as well as into the main clause.

The crucial point is that we are not to construe the quoted speaker as having spoken in the past tense. "Tense concord" is, rather, a mark of the quoting

speaker's parent-space temporal viewpoint; while the lack of tense concord in direct quotations gives direct access to the quoted speaker's temporal viewpoint independently of the parent space. Genette (1980), Banfield (1982), Fleischman (1990), Cutrer (1994), and others have explored the ways in which narrative uses of tense and aspect interact with viewpoint, especially in represented speech and thought. Sanders and Redeker (1996) take some of these generalizations from narrative theory and show that they fall out readily from an analysis of text as prompting mental-space construction. According to Fauconnier (1997) and Fauconnier and Sweetser (1996), the direct quotation "*you'll be okay*" has its *focus* located in the described future-health space (in other words, that's the space that is being informationally built up) but has its *viewpoint* in the speaker's current base space (the "present"). However, the indirect quotation *(she said that) I'd be okay* also has the focus of information building in the future-health space but places its viewpoint (e.g., temporal perspective) in the quoting speaker's space rather than in the quoted speaker's space. When this kind of perspective occurs in reported speech or thought, the narrator may or may not overtly use a "quotative" speech or thought verb (*X said, X thought*).

Thus (16) uses the phrase *she said* to attribute the surrounding discourse to the character who uttered the reported quotation but also shifts all the clauses into the past to be consistent with the point of view of the narrator who is treating this as a past conversation.

(16) If a biker came, she said, and Edward lunged or gave so much as the smallest yip, she was going to yank him so hard he wouldn't know what hit him. (AT.AT.176)
[Edward is a dog. The dog trainer presumably said something like, "If a biker comes, and Edward lunges or gives even the smallest yip, I'm going to yank him so hard he won't know what hit him."]

In (17) there is no reporting verb, but the first sentence introduces the reader into a conversation which is partially reported in the two following sentences.

(17) We chatted another few minutes about his private life. No, he'd never married. Never met the right woman, he guessed. (SP.HT.151)
[He presumably said, "No, I never married. Never met the right woman, I guess."]

The perspective is shifted into the past again, and, interestingly, this extends over the hedging expression *I guess*, which is consequently reported as *he guessed*. What is interesting here is that some of the forms can be construed as quoting the spoken words almost literally: the direct-speech address form *no*,

and the elliptical syntax of *Never met the right woman, he guessed* suggest a specific spoken model. The narrator's third-person and past point of view are represented only in the third-person pronoun *he* and the past tense of the verb forms.

The combination of choices of verb forms and pronouns thus signal perspective, often allowing the reader to interpret thoughts as those of the narrator or another character without explicit labeling, if the reader knows which person is likely to be taking that perspective. In (18) the first-person narrator directly quotes another character, Robbie (a small boy who has run away from home), and then explains the thought behind Robbie's words in a conditional.

(18) "Is that where we are? By Wrigley Field? I've been here with my dad." Some of the strain eased out of his face – if I lived in known territory it couldn't be as scary as he'd been thinking. (SP.HT.324)
[The narrator presumably imagines that Robbie is thinking, "If she lives in known territory, this can't be as scary as I was thinking."]

In terms of narrative theory, the representation of Robbie's thoughts is true Free Indirect Style,[6] combining Robbie's thoughts (the reasoning process is not plausibly attributed to the narrator) with the narrator's temporal viewpoint.

Negative-stance forms, as well as temporal forms, are used to track viewpoint in this way (Sweetser 1996b). Dancygier (2002) presents (19) as an example where the double layer of morphology (past and perfect) is used purely to indicate extra-strong epistemic distance, without past temporal distancing. Such examples are uncommon, but possible. In the movie *War Games*, a computer program has been initiated which will result in a nuclear disaster the next day and nobody knows how to interrupt it. In this setting, a teenage girl tells her friend about a show scheduled for a week later in which she was going to make her first stage appearance. She now knows the show will not happen, but says bravely:

(19) "Nobody would have been watching me anyway."

The verb form *would have been* fits the template (*will* + *pluperfect*) typically found in Q-clauses of counterfactual conditionals. In this case, however, the interpretation is not a past counterfactual one, because the reference is made to a future event. Also, the speaker's viewpoint is present, not past, so there is seemingly no motivation for using distanced forms. At the same time, the speaker is convinced that there will be no future for her, since she will perish

[6] See Genette 1980, Fleischman 1990, Banfield 1982, Sanders and Redeker 1996.

in the nuclear catastrophe along with everyone else. She is thus talking about an "impossible future," and strong epistemic distance alone seems sufficient to motivate the choice of the verb forms.

Perspective, then, refers to the complex combination of emotional, epistemic, temporal, interpersonal, and spatial viewpoints which are manifested in mental-space structure. The choice of *here* rather than *there*, or *she* rather than *you*, are cues for constructing a perspective from a particular spatial viewpoint or from the perspective of a particular participant role in speech interaction. Similarly, conjunctions and verb forms and other aspects of conditional constructions cue the construction not only of conditional mental spaces, but of the viewpoint relationship between those spaces and the context. The examples above are each representative of a different kind of perspective, choosing the point of view of the narrator, or another character, quoting or reporting utterances. Perspective may also involve reproducing the epistemic stance of a particular character, as well as the temporal perspective; indeed, nearly every aspect of linguistic expression may ultimately be recruited for perspectival purposes. In (20), we find an exceptional richness and variety of perspective-related use of form.

(20) Had I been he, I would have thrown me out, but he said no, sure he'd talk, he'd be happy to, if I didn't mind these goddamn phones going off all over the place. (JR.OG.234)

Example (20) comes from a story of the writer's trip down the Mississippi in a small boat. In one town, he visits a grain terminal, where a dramatically busy dispatcher supervises the loading of grain onto barges. The example starts with a construction of a conditional space which envisages the writer/traveler's emotions and decision making being transferred to the situation of the dispatcher. This entire space is in turn embedded in a past narrative: the narrator engaged in this imagined situation-switch at a past time relative to writing time. The result is naturally a distanced space, referring to a past imagining of a situation which is by nature counterfactual (indeed impossible). What the writer was thinking was presumably something like the negative-stance distanced conditional *if I were he, I'd throw me out*. Past-time embedding provides another layer of past morphology. One might call this a counterfactual space, but in so labeling, it is crucial to note that separating fact from fantasy is not the point of this space set-up at all. The point is the writer's imagined experience of the dispatcher's viewpoint; nobody's identity is in doubt, nor are we really concerned with elaborating the irrealis space. Fauconnier (1996) points out that counterfactual conditionals frequently, as here, create a distanced irrealis space more for the purposes of evaluating the actual space than with any intention of reasoning

about the counterfactual space for its own sake. Here, the important inference is that the actual dispatcher had every right to say he was too busy to talk.

In this counterfactual alternate-past space, the person so far referred to as "I" imagines assuming the responsibility, situation, and the occupation of the one so far referred to as "he." However, the situation is still described from the writer's point of view, thus in the second clause he can refer to his newly assumed identity of the dispatcher as "I," and his old identity of the traveler/narrator as "me," also in the first person. This is possible because both in the distanced space (where he is the dispatcher) and in the reality space (he is the traveler), he is the person whose point of view is being represented. Such examples have been described as cases of blended spaces (Fauconnier and Turner 1996, 1998a, 1998b, 2002); we can extend the analysis to talk about *blended perspective*. The writer's personal perspective from the reality space (where the writer is first-person, and the voyage is past) merges with his imagined past perspective, which is taking a negative epistemic stance on an imagined present situation involving a first-person viewpoint which merges aspects of the narrator's past self with aspects of the grain dispatcher.[7]

After *but*, the narration returns to the past "reality" space (*he said*) and the dispatcher's words are quoted, with expected backshifting of the verb forms in past-embedded indirect speech. Interestingly, what is being reported is a speech-act conditional such as *I'll be happy to talk to you, if you don't mind these goddamn phones going off all over the place*. The dispatcher's offer to talk is being hedged with the *if*-clause. Although speech-act conditionals do not normally show negative-stance forms (see Chapter 5), they are readily presented (as here) with past verb forms when recounted indirectly and embedded in a past narrative space. The co-presence of the narrator's past-tense forms with the quoted speaker's expletive *goddamn* usage gives a neat and effective merging of the quoted speaker's emotional viewpoint with the narrator's temporal one.

Although it often seems obligatory to pass some perspective marking down from parent spaces to embedded spaces, it is not always obligatory. Indeed, as Fauconnier (1985 [1994]) demonstrates for French, and as Mejías-Bikandi (1996) argues for Spanish, speakers may have a choice of subjunctive or indicative verb forms in a clause embedded within a subjunctive irrealis context. They may use this choice as a marker of the mental-space status of the entities

[7] See Lakoff (1996) on the use of pronominal reference to express identity across spaces. Lakoff points out that when there is identity within a single space, reflexive pronouns can be used; but when, as here, there is identity only across spaces, *me* rather than *myself* will be used in object position where the subject is *I*. See also Dancygier (in press) for further remarks on pronominal choices in cross-space mappings.

described in the embedded clause. Sweetser (1996b) shows that definite descriptions interact with their tense context in similar ways in English. Example (21), with the present-tense (non-negative-stance) form *want* embedded in a negative-stance conditional, seems to assume that the addressee likely has preferences about shows in the real present space; (22), with the negative-stance-marking *wanted*, treats the addressee's desires about show attendance more as future possible eventualities, within the distanced space of the conditional prediction.

(21) If you helped me out, I'd give you tickets to a(ny) show that you want to see.

(22) If you helped me out, I'd give you tickets to a(ny) show that you wanted to see.

A brilliant attested example of the mental-space ambiguity of English tense is (23):

(23) My ex-husband was Greek.

The speaker in fact subsequently commented that she should have said *My ex-husband is Greek*, since he was still alive. The point is that two distinct mental spaces are involved: a past space, evoked at least by the *ex-* of *ex-husband*, wherein the speaker was married to a Greek man, and a present space, where her current partner is not Greek. The accompanying verb tense may reflect either of the two input spaces. The choice of a past-tense form sets up a viewing of the past situation from the speaker's present perspective (" I *was* involved in a marriage with a Greek man") rather than setting up a fully present viewpoint on an individual who then has an embedded description which is past relative to the speaker's present ("N, to whom I once *was* married, *is* Greek").[8]

The broader point is that there are typically multiple options about how to use tense and other linguistic forms to set up similar mental spaces from different perspectives. These perspectives may invite different interpretations of described situations and of the construal of those situations by speakers or thinkers to whom the descriptions are attributed. Grammar sometimes demands particular clusters of perspective markers: in predictive conditionals, for example, the Q-clause inevitably shares a basic layer of epistemic stance and tense marking with the P-clause. Embedding in a past-tense narrative similarly

[8] The choice of past tense in examples like (23) is discussed helpfully by Tyler and Evans (2001), who note that the speaker of (23) distances herself emotionally from the ex-husband by the past verb choice.

produces quite systematic changes in the choices of verb forms. Specific constructions like direct quotations are free from such grammatical constraints, since they are intended precisely to "re-set" the base space. Non-predictive conditionals are subject to tense-concord when embedded (see [20] above), but they don't normally occur with negative epistemic stance, and so do not layer past-tense embedding on negative-stance marking.

3.5 Counterfactuality: distance and mental-space embeddings

We have maintained that in most so-called counterfactual conditionals, including cases such as (3) or (9), counterfactuality is not a conventional meaning of the forms involved, but rather a contextually prompted inference from those forms in context. It is nonetheless an important inference: counterfactual interpretations are frequent and do important cognitive work.

First, we concur with Fauconnier's (1996, 1997) observation that the primary function of counterfactual mental-space building is often to draw inferences about the base space, rather than about the counterfactual space itself. The attention devoted to counterfactuality by philosophers, logicians and linguists seems primarily motivated by their interest in questions of truth and falsity in general, despite the absence of evidence that indicating falsity per se is the most pervasive or salient function of counterfactual forms in actual language use. We want to follow Fauconnier in analyzing counterfactual conditionals in context, treating them as engaged in building embedded mental spaces.

Second, as noted in the preceding section, we use formal markers of negative epistemic stance in such space building, and these markers track space embedding (see Sweetser 1996b), just as we have seen that tense marking does. Constructions embedded in distanced constructions, such as conditionals, regularly inherit the epistemic distancing position of the parent space. The forms used in such conditionals are predictable from broader generalizations about the interaction between conditional constructions and the markers of mental-space embedding and perspective.

Let us emphasize here that, while it is predicted that negative stance is inherited by a lower space if it has been marked in a higher one, nothing precludes the appearance of negative stance in a lower space embedded in a neutral space. Declerck and Reed (2001, 372–73) reject Sweetser's (1996b) analysis (which we build on here) by quoting sentences such as *If Jill has slapped the director's face, (then) if the director insisted, she could be fired* as counterexamples to her claim. As should be clear from our discussion above, negative stance is marked

"as required," and then inherited by lower spaces; positive or neutral stance, which do not involve specific forms, are less visibly inherited.[9]

Our main point is, then, that often so-called "counterfactual" forms do not indicate particular distancing of a given clause's content relative to its immediate context but simply mark it as embedded in a distanced parent space. Let us illustrate this with an attested example, a construction embedded in a counterfactual space, where the counterfactual and non-counterfactual interpretations are clearly suggested by the context.[10] In the movie *The American President*, the main protagonist is Andrew Shepherd, the President of the United States. His wife had died of cancer shortly before his election; in the movie, three years later, he is approaching his re-election campaign. By this time, a woman has appeared in Shepherd's life and the relationship is being used to smear his reputation. His aides are urging him to respond to the false accusations, but he adamantly remains silent, believing that his private life should not be made into a political issue.

Speaking privately with his Chief of Staff, the President asks:

(24) If Mary hadn't died, would we have won? [. . .] If we'd had to go through a character debate three years ago, would we have won?

The questions are framed counterfactually, because they both start with statements about the past which the viewer knows are false (Shepherd's wife died and there was no character debate). The *if*-clauses in both questions build hypothetical, counterfactual mental spaces, ready to be elaborated by the chief of staff's responses (either they would have won nevertheless, or they would have lost).

The important thing is that any answer provided must now be considered within the space set up by the counterfactual *if*-clauses. Whether the Chief of Staff says *Yes, we would have won* or *No, we would have lost*, he will use a distanced form, indicating that this situation is being claimed to hold only within the counterfactually construed past spaces. Crucially, even though a past victory corresponds to the reality of the characters' base space (and would be described with positive stance as *We won*), a description of a past victory within one of the counterfactual conditional past spaces still has to be described with negative-stance forms, just like an imagined loss within that space.

[9] In fact, Declerck and Reed question other aspects of our analysis in their book. However, since they reject our claims by applying their own definitions to the terms we use, we do not intend to discuss this further.

[10] Discussed in Dancygier 2002.

In the movie, the Chief of Staff has no definite answer. He says, instead:

(25) I don't know, but I would have liked that campaign. If my friend Andrew Shepherd had shown up, I would have liked that campaign very much.

The P-clause here is not counterfactual relative to the characters' base space; the speaker is not suggesting that Shepherd failed to show up to defend himself in the real past (where the character debate did not happen because Shepherd was in mourning). The distanced form of the P-clause comes instead from the counterfactuality of the space in which it is embedded, one in which "Mary did not die / There was a character debate." It is distanced as a result of being embedded in a distanced space, and the distanced marking of the verb is necessary for us to be able to keep track of where the distanced reasoning has started.

So even if a parent space is itself construed as counterfactual relative to the base space, its daughter space need not be. The immediate parent space is counterfactual with respect to its own parent space (the space to which it is subordinate). But the daughter space of a "counterfactual" will receive an interpretation matched with just one space, the one it is immediately subordinate to, regardless of whether its content has been interpreted counterfactually or not. In other words, distance is inherited through longer stretches of discourse (as we can see in [25]), but counterfactuality is localized to the two contiguous spaces that clash.

The Chief of Staff's overall counterfactual scenario has relevance for the current situation. He is saying that the President would have needed to take action, in a hypothetical situation of being under character attack in the previous election – and therefore action is needed now, when he is actually under attack. The problem is not the attack, but the President's reluctance to fight back. As is often the case, then, the hypothetical scenario is set up and developed in order to draw appropriate conclusions about an analogous situation in the reality space.

In sum, distanced verb forms mark distance. When, in context, such forms set up a mental space which is not only hypothetical but also negates our knowledge of the reality space, the clause receives a counterfactual interpretation. Once the counterfactual space has been set up, all other spaces subordinate to it, whether as a result of expansion of the existing space or because a new space is set up, will also be marked with distanced forms, even though they themselves need not be interpreted counterfactually. What is more, the embedded spaces will not be interpreted counterfactually even if they actually contradict our knowledge of the reality space, because they are matched only against their immediate parent space.

A very complex construction of temporal and epistemic embedding is found in the following set of examples. The writer is watching fellow patrons in a bar in St. Paul, Minnesota, and contemplating St. Paul's earlier identity as a frontier trading community called Pig's Eye. The first sentence of (26) puts the reader in an imagined, distanced space which is past with respect to narrative time. This past space is connected to the narrative present, since he imagines the nineteenth-century founders of St. Paul as the ancestors of the current bar patrons.

(26) The great-grandfathers of these men could have been in on the beginnings of St. Paul. If one of them had arrived here in 1847 he would have found a dismal collection of traders' cabins set above the river . . . (JR.OG.57)

The verb form *could have been* is clearly not just temporally distanced from the immediate mother space (the bar-room scene), but further epistemically distanced as well: simple temporal distance, with a more neutral epistemic stance, would be conveyed by a form like *The great-grand-fathers of these men may have been in on the beginnings of St. Paul*. The added layer of past tense in *could have been* may be motivated by the further embedding of the entire bar-room scene in a past-tense narrative: the moment of recounted thinking follows the beginnings of St. Paul, but the moment of narration is also later than the moment of thinking. Alternatively, epistemic distance may be indicated by the added layer of past morphology: the writer may be emphasizing that his bar-room speculations were whimsical and fantastic at the time. Since there would be no easy way to add further layers of past morphology, the form remains ambiguous.

The conditional *if one of them had arrived . . .* could have been read counterfactually, out of context. In context, however, the tense forms are motivated by the same double layerings of distanced perspective which have already been built up in the scenario of the founding ancestors of St. Paul. Within this background space, the ancestors *did* arrive. All this new conditional space does is choose one, unspecified imagined man to be the focus of the ensuing story of life in old St. Paul. The two pages of following narrative are conceptually embedded in the same "great-grandfathers" space and therefore show consistent epistemic and temporal distance marking.

But the narrative eventually returns to modern times and the narrator's story. In (27), the writer/narrator (a British visitor to Minnesota) examines the imagined St. Paul ancestor's point of view of the present bar patrons.

(27) What would my old man, with his log house and his memories of Pig's Eye, have made of his descendants in Admiral Benbow's? Would he have felt a damp-eyed pride to see them there, jiggling the ice cubes in their cocktails? (JR.OG.59)

The questions in (27) imagine the perspective of a (nonexistent) character, in an imagined past space, evaluating the bar-room patrons, whom he (like the narrator) construes as his distant future descendants. As in (26), the verb forms mark a combination of epistemic distance and past perspective, but since there are no "facts" to match against the imagined scenario, there is no counterfactuality in any standard sense of the term. We have no idea, nor does the author, whether any of the patrons are among the descendants of St. Paul's founding citizens; and in any case, the narrator is about to give further evidence that he is not interested in the truth or falsity of such a scenario, but in evaluating the present patrons.

The writer next expresses the imagined ancestor's judgment of the bar patrons. Example (28) is used to explicitly confirm that the writer is looking at the men around him not from his own perspective of a total stranger, but from an imagined vantage point of somebody with a totally different experience of St. Paul. The seemingly counterfactual initial *if*-clause serves a purpose in the base. Loosely speaking, we might say that the author imagines that the founders of St. Paul would have to have been tough, self-sufficient frontier folk. Thinking about them has made him (perhaps regretfully) aware that modern St. Paul residents are not like that, nor, presumably, is he; "Great-great-gran'pappy's" assessment expresses this sentiment.

(28) If I had been Great-great-gran'pappy, I would have wanted to whup them good, every one. Hell, those guys, they wouldn't have known one end of a five-dollar hog from the other. (JR.OG 59)

So when are distance-marked conditionals actually interpreted as counterfactual? Our answer takes us back to the idea of embedding. When a conditional structures a new space, it does so against the background of the currently active parent space. The conditional space ordinarily inherits a significant amount of structure from the parent space: overall background will normally be passed on, unless contradicted by the specific content of the conditional. (For example, *If Joe went to school* would be construed as referring to a modern school against a background of a modern speaker's current base space; but if instead the active background space is nineteenth-century St. Paul, then it would evoke a nineteenth-century school scenario.) If the parent space is past, or otherwise

distanced, the newly set-up daughter space will inherit that distance – and until or unless viewpoint shifts, the distance will be marked linguistically. If the mother space contains assumptions which the new conditional space contradicts, then counterfactuality will arise as part of the interpretation because of the clash between the mother space and the daughter space. In this case, one would expect distance markers in descriptions of the daughter space, at least while it is viewed from the parent space. One would assume that anyone with perspective from a base space that conflicts with a particular embedded space would also take a negative epistemic stance towards that embedded space.

The main function of the verb forms used in so-called counterfactual sentences is marking distance: temporal, epistemic, or both. In cases where the speaker is using the forms to set up a mental space which is not only hypothetical but also negates our knowledge of the reality space, the clause receives a counterfactual interpretation. Once the counterfactual space has been set up, all other spaces subordinate to it will also be marked with distanced forms, even though they themselves will not be interpreted counterfactually. As further embedded spaces are matched only against their immediate parent space, they will not be interpreted counterfactually, whether or not they contradict our knowledge of the reality space.

Why then does a specifically counterfactual interpretation seem to be the default interpretation of negative-stance forms (and especially past ones) outside of actual textual context? Much of the literature on conditionals until recently has been based on isolated examples having this interpretation. This has perpetuated the belief that the counterfactual interpretation of these forms is basic (whether it resides in the semantics or enters via implicature), and that some special explanation (such as cancellation of the implicature) is required to motivate a non-counterfactual reading. We disagree; however, we still need to account for the intuition that a decontextualized distanced form often gets a default counterfactual reading.

Counterfactuality represents the "strongest" case of both temporal and epistemic distance. It presents the space being set up as directly contradicting a reality that is known and cannot be changed. But remarkably, this kind of counterfactual interpretation is also one of the cognitively simplest ones, since all it does is reverse some known assumption about a reality (spelled out in the P-clause) and imagine it not to be true. Other interpretations of the use of distanced forms may refer to unlikely or simply doubtful events occurring in various periods of time, but such interpretations are usually supported by contextual

clues. Only counterfactuality can be "read into" a conditional by virtue of the distanced verb forms alone. We suggest, then, that when the verb forms used suggest distance, the strongest interpretation of distance is chosen, not because it is the strongest but because it requires minimal context building. The negation of the assumption in the *if*-clause will construct a distanced mental space which fills the requisite specifications. In other words, without context to guide the mental-space set-up, it is enough to assume that the event described in P is a past, known fact and to negate it. What analysts of counterfactuality have called "polarity reversal" (assuming the truth of the opposite of what has been stated in the sentence) is thus a formula for setting up a basic distanced conditional mental space without further context.

Our attested examples support this view. In the sentence from *War Games* (*Nobody would have been watching me anyway*), we know from context that the speaker is thinking about a future situation which, although planned, will be prevented from happening. So we do not interpret this as counter to a past factual reality. But, taken out of context, a sentence like *If the show had been broadcast, nobody would have been watching me anyway* would readily be interpreted "counterfactually." Readers would thus construct a past "reality" where a scheduled show was not broadcast and hence not watched, and take the sentence to be constructing a counter-to-fact space wherein the show was broadcast (but still nobody watched). Similarly, *If my friend Andrew Shepherd had shown up, I would have enjoyed that campaign*, when considered outside its context, suggests that Andrew Shepherd was expected to show up and didn't, and that consequently the speaker did not enjoy the campaign. In both cases the lack of context supporting a specific space set-up leaves only one option: building a space by negating the assumption presented as distanced. In such cases, then, distance appears equivalent to polarity reversal.

In sum, distanced verb forms mark epistemic distance, but this need not be distance from the immediate mother space. Many distanced or past uses of verb forms can be understood as cases of mental-space embedding – they reflect the distanced or past interpretation of some mother space relative to the base. Depending on context, mental-space embedding involves shifts in temporal perspective, inheritance of epistemic stance, and sometimes inferences of counterfactuality relative to parent spaces. All we really need to say about these cases is that, when a construction is embedded in a past epistemically distanced space, it will inherit the level of distancing introduced by the parent space, unless viewpoint shifts from the parent space's perspective. Without a context, however, a simple default interpretation for distanced (and particularly

past distanced) forms is to take the distanced forms as indicating that P builds a space which directly contradicts a base space "reality" of ∼P.

3.6 Conclusions

English tense forms thus interact with conditional constructions in a wide range of ways. We have built up a model which includes the following regularities beyond those automatically predictable from direct temporal reference:

(1) *Backshifting* is a label for the regular use of simple present forms with future reference, specifically in the "background" clauses to future predictions (*when*-clauses and *if*-clauses, among others). Backshifting affects only the clause in which it occurs; the main clause of a future-reference conditional prediction normally has future verb forms.

(2) *Distancing* – the addition of another "layer" of past-tense morphology with no corresponding layer of temporal distance – shows negative epistemic stance.

(3) *Embedding* of spaces may cause past-tense marking and/or distanced stance marking to be inherited from mother to daughter spaces. Where temporal viewpoint or epistemic distance spreads downwards through a network of mental spaces, as in (22), distanced verb forms will be used in all embedded grammatical constructions expressing that network. Where the temporal viewpoint or negative stance does not spread downwards, as in (21), the formal distancing does not spread to those clauses.

(4) Particular patterns of paired verb forms in P-clauses and Q-clauses characterize predictive conditional constructions. For neutral-stance conditionals, one basic pattern is P-"present" paired with Q-*will*-future. For distanced stance, P-"past" and Q-*would* is highly productive; and for past distanced or other specially distanced cases (such as [25]), P-"pluperfect" and Q-*would have* is a standard pattern. These patterns are compositional; that is to say, the verb forms do not have to be learned independently but are predictable from regularities about the mental-space structures referred to and the reference ranges of the verb forms. The actual verb form chosen in a given example, conditional or otherwise, simultaneously reflects temporal viewpoint and reference, epistemic stance, and other factors which will be dealt with in more detail in the next chapter.

These generalizations do not cover the full range of conditional constructions, or the full range of English *if*-constructions. In the next chapter, we will discuss a broader range of verb forms which can be used in predictive conditional constructions. And in Chapter 5 we will treat non-predictive conditionals, which are not structured by the regularities particular to alternative-based prediction.

4 *Future and present forms in conditional constructions*

> When a Brandy flutters her eyelashes, you can almost feel the breeze.
> (NS.SC.63)

4.1 Verb forms and constructional meaning

A wide variety of verb forms interact with predictive conditional constructions, making differing contributions to the overall meaning. In Chapters 2 and 3, we discussed the uses of particular verb forms to mark predictive reasoning and epistemic stance in conditionals. In Chapter 5, we will show that such verb-form restrictions are largely relaxed if the conditional is not used predictively; however, readers with detailed knowledge of the descriptive categories used in good grammars will already have noted gaps in our description of predictive conditionals. Chapter 2 did not mention alternate possible future verb forms in conditional apodoses; *will* and *gonna* are both possible in future predictive Q-clauses. We have not discussed generic conditionals: examples such as *He gets angry if I leave the house* (AT.AT.54) show two apparently present-tense verb forms. In this chapter, we will survey some of the regular functions of different verb forms in English conditional constructions.

In assessing the contributions of particular verb forms to the overall meaning of a conditional construction, we are necessarily concerned with the issue of how *predictable* this contribution is. In some cases, we will argue that the semantics of the relevant class of verbs simply makes a regular contribution to the compositional interpretation of the broader construction. In other cases, the use of a particular verb form seems to be largely motivated by other more general uses of that form but is not completely predictable or compositional. Separate constructions must therefore be posited to describe these usages.

Further interesting theoretical issues arise in cases where we cannot uniquely identify a verb form; in some cases we may need to say that a particular conditional construction is licensed simultaneously by two separate constructions from the broader grammar. Speakers, since they are not grammarians, need

not choose a single analysis. Constructional ambiguity of this kind, or "double licensing," is not an uncommon phenomenon and appears to be a significant factor in grammatical change and the development of new constructions (see Israel 1996, Johnson 1999a, b).

4.2 *Will* futures and *gonna* futures

Both *will* and *gonna* can occur in the apodoses of future-reference predictive conditional constructions. They are both licensed as part of the building-blocks of a predictive interpretation, even in the absence of explicit *if* or *then*:

(1) If she makes another mistake, she's gonna be out.

(2) If she makes another mistake, she'll be out.

(3) She makes another mistake and she's gonna be out.

(4) She makes another mistake and she'll be out.

In all of the preceding group of examples, the Q-clause is construed as having future reference. However, there is a clear difference in interpretation between examples (3) and (4): (3) might be imagined as expressing an annoyed employer's statement that continuation of an employee's ongoing behavior will lead to firing, while (4) seems more the general prediction of an onlooker. Since the only difference between these two examples is the *will – gonna* alternation, it seems plausible to explain the contrast in terms of the semantics of *will* and *gonna*.

Researchers have noted that the *will* future and the *gonna* future in English are semantically distinct, in ways which show vestiges of their earlier pre-tense etymological meanings. Fillmore (1986, 1990a) points out that volitional uses of *will* need to be distinguished from the "pure" future-reference ones which we have called predictive. Fleischman (1982a, b) argues against earlier analyses of *gonna* as a "proximal" future, and instead proposes that English *gonna* stresses the causal continuity and connection between the present situation and the future event or state of affairs.[1] *You'll get married* could be said by a fortune-teller, but *you're gonna get married* sounds as if it is more connected to the contextual situation: perhaps the speaker is observing the addressee's relationship, or perhaps the speaker is even putting pressure on the addressee to marry.

[1] See also Comrie 1982 and Palmer 1983 on future reference in protases.

It is not surprising, therefore, that the following five examples of *gonna* in predictive Q-clauses, found in our literary corpus searches, all seem to involve statements about the speaker's action, as an inevitable causal result of a P-type situation. Examples (5)–(9) also all seem to carry a sense that the speaker is committed to the happening of *Q, if P*. Perhaps less predictably, in all five examples, Q is seen as being undesirable to someone. Example (6) is a threat directed at the addressee; (8) is directed rather at the third-person dog, Edward, who will suffer retribution if he misbehaves. In (7), a doctor vows to disobey his orders not to ground pilots, so he is "threatening" to do so at least in the sense that he is promising to bring about a negatively valued result. Example (5) seems to be a "threat" to the universe at large, or to whatever has been causing the speaker's nails to break – but at any rate, the speaker's screaming is seen as an unpleasant rather than a positive eventuality. Similarly, (9) predicts a negative eventuality relating to the speaker, though not specifically a threat (although, in context, the reader can imagine that if the speaker – an obnoxious little girl – is "so sick," then others will probably suffer for it).

(5) "If I break another nail I'm going to scream." (AT.AT.101)

(6) "If you don't get me out of this I'm going to call for the police to come shoot him," Charles said. (AT.AT.162)

(7) "If anyone sick walks through my door, I'm going to ground him," Dr. Stubbs vowed. (JH.CTT.119)

(8) If a biker came, she said, and Edward lunged or gave so much as the smallest yip, she was going to yank him so hard he wouldn't know what hit him. (AT.AT.176)
[a third-person narration of a first-person speech event, rephrasing something like *If that dog lunges . . ., I'm gonna yank him so hard he won't know what hit him*.]

(9) "If Rhiannon beats me in the backstroke, I am going to be so sick." (SP.HT.276–77)

If Fleischman was correct, then it seems possible that *gonna* is a particularly appropriate future form for the Q-clauses of predictions about negative outcomes which are tightly causally tied to their corresponding P-clauses. A specific subclass of these, which may even be a sub-construction of its own, is expressions of conditional threats about first-person action. First, a threat is strengthened by the consequence being construed as inevitably causally tied to the antecedent. Second, by avoiding the possibly volitional – but at any rate more volitionally controllable – portrayal of a future event with a *will* future, the speaker avoids personal responsibility for the causal chain involved in the threatened event.

We do find threat conditionals with *will* forms in the Q-clause. An example is (10), which seems to have given up the causal immediacy of *gonna* precisely in order to emphasize the volitionality reading of *will* (distinct from simple future *will*, and discussed below). The speaker's point is her personal assumption of a conditional commitment to carry out a particular course of action – and specifically, the independence of her decision from the addressee's possible wishes. *Going to* would not seem completely out of place in this example – but it might sound even more threatening, since it would assume that the way things are going is inevitably causally bringing about the described court confrontation. The speaker intends to give her addressee room to back off, but she wants the addressee to realize that she is "ready and willing" to engage in mud-slinging in court if necessary.

(10) "But I can tell you this much, if you don't give my son a divorce and release all financial claims on him, I will personally produce Dana Scully and his friends in a court of law and they will swear you're a known tramp and that baby could be any one of theirs . . ." (AT.AT.177)

Crucially, however, *will*-future apodoses seem distributed over a broad range of predictive functions (as indeed should be clear from the examples presented in the last chapter), not linked specifically to a particular function such as undesirable outcomes which are imminently accessible to observers from current trends in the situation. *Will* has the more general future function here, while *gonna* has the more specific one.

4.3 Positive-interest *will*

Future *will* does not ordinarily occur in predictive protases, which use backshifted "present" forms for future reference to a situation which is the background to a conditional prediction, but do not themselves express predictions. Example (11) is an ordinary predictive conditional usage, while (12) is unacceptable under that reading.

(11) If he's better tomorrow, he'll go to the show.

(12) *If he'll be better tomorrow, he'll go to the show.

Similarly, the attested (13) contrasts with (14), which seems unacceptable with a predictive reading.

(13) "If I'm successful I will certainly fight all the way for the principles that need to be defended," Gore said. ("Gore explains ballot legal fight," *Excite News*, Nov. 16, 2000; AP report by Sandra Sobieraj)

(14) *If I'll be successful I will certainly fight all the way for the principles that need to be defended.

However, an apparently volitional *will* does occur sometimes in predictive conditional protases, as in (15).

(15) If Joe will (= "agrees to, is willing to") help you, you can finish today.

Will in (15) cannot be construed as marking futurity per se. Indeed, the difference between (15) and *If Joe helps you, you can finish today* seems to lie precisely in the fact that (15) marks volition or willingness on the part of Joe. Volitionality is an inherently future-oriented modality and is therefore perfectly compatible with the future time reference which we need to attach to the helping and the finishing in order to give such an example a coherent predictive reading; present volitional *will* in (15) clearly means that Joe is willing to help in the future, not in the past. (It seems incoherent to say *I am willing/eager to have helped you yesterday*.) But the volition or willingness itself is not attributed only to the future.

This volitional *will* is formally identical to the future *will* (even in contractions). And since it does of course have relative future reference (intention being a future-directed modality), the two may be said to overlap in referential coverage to some extent. But future *will* can of course be used in cases where no volition or intent is involved. And examples such as (16), where *will* occurs in a predictive conditional protasis, are acceptable only under a volitional, rather than a predictive future, reading of the protasis.

Sentences (16) and (17) are attested examples of volitional *will* in a protasis:

(16) I recommend the Underground for everyone except for those afraid of heights, and even for them if they will avoid the following stations . . . (AT.AT.34)

Will in (16) cannot be paraphrased by a future form (e.g., *if they are going to avoid the following stations*), because it doesn't have future meaning. Rather, it means something like "if they are willing/agree to avoid the following stations," while (17) suggests "we'll double your fee if you are willing/agree to make this a priority."

(17) "We'll double your fee if you'll make this a priority . . ." (SP.HT.137)

More puzzling at first glance are examples like (18), where Fillmore (1986; 1990a, b) has noted that the use of non-future *will* may go beyond a meaning

of volitionality to cover cases where no agent possessed of will is in control of the event described.

(18) If this rain will just hold off, I can get the lawn mowed.
[cf. #If this rain will just continue, I can't get the lawn mowed.]

Fillmore attributes the acceptability of *will* in (18) to the speaker's "positive interest," as contrasted with the volitional agent's self-construed positive interest (which we could label *willingness*) in (15). Willingness is therefore a particular instance of the broader category of positive interest, especially since both are future-oriented in the same way that volition is: desire-states, like intentional and volitional states, are ordinarily tied to future possible events and situations which are desired or intended. But future orientation is not the same as future reference; and it is future-reference *will* which does not occur in predictive protases.

Positive interest and volition are clearly related. In all of our volitional examples, there is also the speaker's (or someone's) positive interest at stake. It is impossible to imagine, for example, the speaker of (17) saying "We'll make trouble for you if you'll make this a priority," in order to deter the addressee from making a particular case a priority. To capture this generalization, we could simply consider all these examples as positive-interest uses of *will*. Furthermore, even in cases where the relevant clause clearly does involve a volitional agent, positive-interest use of *will* does not always exactly coincide with the possibility of paraphrase with "be willing." This seems added evidence that we need another concept – broader than volitionality or willingness on the part of the agent – to capture the relevant generalizations. It seems wrong to paraphrase (19) with "if she is willing to agree to it." A better paraphrase might be "If I can get her to agree to it," which clearly marks the speaker's positive interest in the agreement happening.

(19) "I want to marry her . . . If she'll agree to it, that is." (AT.AT.205)

Sentences (20) and (21) are perhaps even stronger examples. Both are distanced predictive conditionals with positive-interest *will* in the protases.

(20) "If one of your contacts in that neighborhood would tell you the mother's whereabouts, maybe you'd be the man to talk her into getting an autopsy done." (SP.HT.155)

(21) "If I would have the courage to stop patching you up, perhaps you would stop breaking yourself into pieces . . ." (SP.HT.233)

The speaker of (20) takes a negative stance towards a conditional whose protasis might be stated as *if one of your contacts in the neighborhood will tell you the mother's whereabouts*, but might be glossed as something like "if you can get one of your contacts to tell you . . ." Although the contact's willingness is a requirement, there is a clear assumption of shared interest on the part of the interlocutors in getting the information, and a gloss of "if one of your contacts is willing . . ." does not seem to really capture this meaning. Example (21) is almost impossible to gloss with "be willing"; the speaker, a doctor named Lottie, is talking to a younger female detective (Vic Warshawski again) and bemoaning her inability to keep Vic from taking physical danger seriously. She intends Vic to understand not that she is "unwilling" to have the courage to stop patching her up, but that it would be in her (Lottie's) positive interest to have the courage to let Vic take the physical consequences of her recklessness, since then she might get Vic to take her advice and be more cautious.

It is worth noting that the apodoses of (20) and (21) present puzzles of their own in their use of *would*. First, the Q of (21) is a distanced form of *perhaps you will stop breaking yourself into pieces*. But although this is a perfectly acceptable predictive-apodosis use of *will*, it does not seem to mean only prediction with reference to a negative-stance future space. There is an element of volitionality or interest here too: Lottie is saying *will you please stop getting badly hurt on the job?*, i.e., not just "are you going to do so?" but "can I get you to agree to do so?" There is no need to choose between a future and a positive-interest reading of this clause, since the two don't clash here, and both are completely acceptable in the apodosis of a predictive conditional. Example (20) has a similar intriguing use of *would* in the apodosis, but social distance (politeness) seems to be involved here as well: the speaker doesn't want to push her interlocutor (a relatively new acquaintance) too hard.

In (22), on the other hand, the paraphrase with "if they are willing to" seems entirely acceptable. Similarly, (23) is easily glossed as something like "if Tessa refused to stop to talk" or "if Tessa was unwilling to stop to talk," although the presupposition is that the speaker wanted her to do so.

(22) "If they will pay a hundred and twenty-five thousand dollars on account, I will wait . . . ," Nelse Ackerman would say. (US.SP.174–5)

(23) Tessa . . . was too deep in her work to take a break. If Tessa wouldn't stop to talk I had no choice but to go to work myself. (SP.HT.130)

Many examples of volitional and positive interest *will* examples have third-person subjects, but second-person cases like (24) in fact predominate in the textual examples:

(24) "If you'll wait a minute, ma'am, I'll signal to my little girl, she'll take her on the ice for you." (NS.WB.34)
[Harriet, aged nine, is at the ice rink for the first time; her mother receives this offer from another spectator.]

The speaker of (24) is not basing a prediction on the assumption that her addressee is willing to wait a minute, but making an *offer* to have her charge give a skating lesson to the addressee's daughter, conditionally on the addressee's willingness to wait a minute. In fact, the *will*s in both protasis and apodosis are volitional, though nothing prevents us from seeing the apodosis *will* as ambiguous between volitional and future-tense readings.

Many of the cases with third-person forms also involve the kind of interactional second-person meaning shown in (24), checking an interlocutor's willingness. And indeed, in (22) above, the speaker is presumably reporting an offer which would originally have been phrased *If you will pay a hundred and twenty-five thousand dollars. . .*

Volitional and positive-interest *will* in protases must therefore be distinguished from "future" *will*. Although volitional *will* is statistically frequent in protases only with a second-person subject, it is acceptable with a range of subjects and is acceptable because it is semantically volitional and temporally present (rather than future). It is constructionally an instance of the standard use of present verb forms with future reference in predictive conditional protases. The fact that the volitionality and positive interest involved are future-directed modalities, and that these uses of *will* are related to future-tense uses of *will*, are added motivations for the future-reference use of forms which are not in themselves future-tense markers.

4.4 Future *will* in protases of non-predictive conditionals

We have so far characterized predictive conditionals (and other predictive constructions) as not allowing the use of predictive *will* in their protases. However, we should note that *will* resembles the other English modals in being susceptible to interpretation in other domains besides that of content. Specifically, *will* has been noted as a marker of epistemic prediction (see Leech 1971, Quirk et al. 1972, Sweetser 1990, Dancygier 1998), in examples such as *That will be John* (said by someone about to answer a ringing phone), or *He'll be home by now* (said as an encouragement to try telephoning the person who is likely to be home). In these cases, *will* can mark a prediction of some state of knowledge or verification, rather than of the content of the clause. We can thus expect epistemic meanings to correlate with a different use of predictive *will*.

We will show in detail in Chapter 5 (following the treatment of this issue in Sweetser 1990 and Dancygier 1998), that when the conditional relationship itself is non-predictive (e.g., epistemic or speech-act), the restrictions on the use of tenses and the use of *will* do not hold. Consequently, true future *will* can occur in conditional protases, but only when the conditional is not a predictive conditional. Examples like (25) and (26) show a contrast between a predictive and a non-predictive conditional, with *will* being used in the non-predictive conditional's protasis. This shows pretty clearly that the problem with (12) above was not a clash between the forms *if* and *will* in a protasis, but a clash between *if* and future *will* in a predictive conditional protasis.

(25) If he gets better by tomorrow, I won't cancel our theater tickets.

(26) If he'll get better by tomorrow, I won't cancel our theater tickets.

Example (25) is a predictive conditional; in a possible "tomorrow" where the patient's health is improved, the speaker will then not have to cancel plans to go to the theater. Example (26) is not predictive: it might rather be taken as the speaker's *present* decision not to cancel tickets, based on a present belief about the patient's likely improvement. One might imagine its use in a context where the doctor has just said, "Oh, he's sure to be better tomorrow." Although we will further discuss examples like (26) in the next chapter, we would like to note here that they are not exceptions to the generalizations we have laid out. Future *will* is barred only in protases of predictive conditionals, not in non-predictives (see Dancygier 1998; Chapter 4).

Example (27) is an attested usage similar to (26):

(27) . . . the desire to travel seizes them; then they pack up, hail a steamboat, and clear out. Not for any particular place; no, nearly any place will answer; they only want to be moving. The amount of money on hand will answer the conundrum. *If* it will take them fifty miles, very well; let it be fifty. *If* not, a shorter flight will do. (MT.LM.326)

Here the future (or "predictive") reading of *will* is present in the content of the *if*-clause. However, the conditional relationship is not between the future event and some further future one, but between a present belief about a future event and a present conclusion or speech act. Further, although *will* may be used predictively here, the conditional is not a predictive conditional. For example, Twain's imagined wanderer in (27) is not *making* a prediction that the available money will take him only fifty miles, nor a conditional prediction that fifty miles is an acceptable journey to buy a ticket for. Rather, he is *evoking* or *accepting* a contextually available (and non-conditional) prediction that his money will

take him only fifty miles, as background to the agreement to take a fifty-mile steamboat ticket.

Future *will* is thus acceptable in epistemic or speech-act conditional protases, both because the protasis is not related to the apodosis on the level of content (so reference times are not coordinated in the usual way), and secondarily also because most of these conditionals are not construed as involving predictions by the speaker. Close (1980) cites an attested example *If you will be alone on Christmas Day, let us know now*, from a poster on the door of a local community center. As Dancygier (1988a, 1993, 1998) has argued, these cases present "cited" predictions in conditional protases. The poster is not *predicting* that the addressee will contact the center, nor that the reader will be alone; rather it is grounding an invitational speech act in a space established by an (imagined) already-extant prediction by the reader.

Chapter 5 will further examine the ways in which tense correlations are loosened in non-predictive conditionals and show that this loosening follows from the functions of those conditionals. And in Chapter 8, we will develop and refine our categories of volitionality and positive interest, relating them to a category of *positive emotional stance* which is needed for analysis of a range of English constructions, including *if-only* conditionals. For the moment, we have tried to make two points clear: (i) that we need to distinguish semantically future (predictive) uses of *will* from volitional and positive-interest uses, and (ii) that the occurrence of future *will* in protases is limited to non-predictive conditionals.

4.5 Present forms with future meaning

Present forms with future reference are a notable characteristic of future-reference predictive protases, where future forms do not appear because of general backshifting in background clauses. However, in spoken English and in less formal written registers it is easy to find examples of present forms with future reference in predictive apodoses as well; a future-reference apodosis, like other main clauses, can use any verb form which can conventionally have future reference in English. Example (28), for instance, is said by a courier protecting the item she is responsible for delivering.

(28) "Hey, if anything happens to that, my ass is grass," Y.T. says. (NS.SC.182)

It seems reasonable to assimilate the present *is* in (28) to the general use of present tense with future reference in independent clauses, as in *The plane departs at 4 pm next Tuesday*. Unlike a *will* or *gonna* future, such

"present-for-future" usages present a future event as presently already "on the books" as part of a present schedule or a train of events which is fully determined by the present state of affairs. Rather than predictions, they are present statements about plans or schedules for the future (Fillmore 1990a, b).

Returning to (28), we can now note that although the courier's cargo has not so far been lost, the courier's state of responsibility for the cargo's safety is presently in force, with its attendant penalties for failure. She can't at this point go back to her employer and say that she'd like to give up the delivery job and remove the possibility of negative consequences if she fails. She highlights this by her use of the present in *my ass is grass*.

Similarly in (29)–(30), the present tense in the apodoses is semantically different from a future use. If the speaker of (29) had said *Global will sign the contract*, she would merely be making a prediction, subject perhaps to confirmation by her interlocutor. Her use of the present signals explicitly that this is not just a prediction about the future, but a statement of her present requirements for the future scenario wherein she accepts the job. Similarly, (30) expresses a current plan of action for a conditional future eventuality.

(29) "Of course, if I agree to work on it, Global signs the contract. Not you." (SP.HT.138)
[An investigator considering a job is stipulating that her client's corporate employer would need to be the official client.]

(30) "We need some food, some clothes, only for three days. Then if we do not find the beach, we swim back and wait for the boat." (AG.TB.70)

With non-stative verbs, progressive presents can also occur in future-reference predictive apodoses, as in (31). Although the progressive in (31) is clearly not identical in meaning to a simple present in this context, it does clearly express the speaker's current commitment to the disruptive children's removal from the pool. The parallel example (32) expresses a prison guard's current commitment to put a prisoner in solitary confinement if she fights again.

(31) "Jason and Parnell" – here she raised her voice to a shout – "if you don't stop making so much commotion you're getting out until we're done here." (SP.HT.75)
[A mother giving a swimming lesson to children is reprimanding other children for disrupting the lesson.]

(32) "Warshawski, if I catch you in one more fight you're going into segregation . . ." (SP.HT.371)

The contrast between simple-present and present-progressive future-reference apodoses seems in some respect to parallel that observed between *will* and *gonna* apodoses, in that examples (31) and (32) are both warnings about negative eventualities.

This reading of present-tense forms in predictive apodoses highlights a crucial similarity between the present forms in the two clauses of examples like (28)–(32): both clauses are future in reference, and neither is predictive. The protasis is backgrounded, presupposed relative to the content of the apodosis; the apodosis is, according to this reading, a non-predictive statement of a present plan, schedule, or commitment relative to a future outcome. There is therefore a new possibility of relating these two apparently distinct uses of the present-tense form, the "backshifted" use and the "present for future" use.

Note that we do not mean to say that (28)–(32) are not predictive conditionals; rather, we want to suggest that the predictive conditional relationship emerges from the larger construction, rather than from the present verb form in the main clause. Present-tense uses with future reference may, in the right context, *convey* predictions (of course, they also may not – they may convey background instead, for example); but they do not in themselves express prediction.

We have claimed (Chapter 2; Dancygier 1998, Dancygier and Sweetser 1996, 1997) that the *will* future in English (as opposed to volitional *will*) is predictive in its semantics. But the present is a far less well-defined tense: it ranges from generic statements to specific references to present events and states, to these future-reference uses in predictive backgrounds and in present-for-future assertions. We would like to propose that all of these are related to each other, as linking the event or state of affairs to a current temporal baseline. The generic and specific present-tense uses in main clauses employ the speaker's (or narrator's) own present experiential viewpoint to establish this baseline; the difference between them has to do not with temporal reference per se, but with the aspectual interpretation of non-progressive forms; we shall return to this point. Both uses involve the speaker's present, in one case as the actual time of an actual situation, and the other as a sub-case of the times when this situation might prevail.

Our proposal is that conditional protases and *when*-clauses have license in English (though not in all languages; in fact, English may be eccentric in this respect) to set their own baselines for future scenarios. The use of the present tense simply marks the protasis or background clause as referring to a time which is part of the baseline "set-up" situation for this particular space. Within this reset temporal framework, we can predict a relative future eventuality; in

this case we will use a future-tense apodosis following the present-form protasis. We can also simply make a reset-present statement about the relative future, in which case we use the present in the apodosis, as in (34). Note how (33) and (34) contrast with (1)–(4) above.

(33) If you make one more mistake, you'll be out.

(34) If you make one more mistake, you're out.

This is not all there is to say about tense use in conditionals and other subordinate clauses. Non-predictive conditionals do not reset in this way; they are simply immune to the ordinary constraints on relationships between main and subordinate clause tenses, because the conditional and causal relations between the clauses are not between the content of the clauses, but between the epistemic states or speech acts involved in believing or expressing the clauses. The same is true of epistemic relationships between non-conditional conjuncts.

The tense resetting also does not apply with respect to past-reference *when* and *if* background clauses; this suggests that the basic contrast being maintained here is past vs. non-past. A prediction is by definition about relative futurity; we might say that its default meaning is futurity relative to the speaker's present, rather than to some past point in time. In describing a situation at some time other than the speaker's present, she has two possibilities: one, to keep her temporal baseline unaltered, and refer to the past events in the past tense (shifting tense as the reference shifts); or alternatively, to reset the baseline itself, which may mean that she can continue to use the same tense she was using to refer to her own present space.

By this analysis, the only real "backshifting" in tense is that which is involved in expressing negative epistemic stance; the various uses of present forms in future-reference conditional protases and apodoses are all "genuine" present forms, motivated by this reset baseline, and by other constructions allowing present use for future reference in independent clauses. The future forms characteristic of future-reference predictive conditional apodoses are future because they have a predictive function (similar to the predictive function of non-conditional *will* predictions). The protases lack this predictive function, and therefore have no reason to be marked for anything except the newly reset present baseline of the space in which they hold, and which they are involved in setting up.

When shows future-reference uses of present main clauses in the same kinds of patterns we have observed with *if*, with similar reference to present mental plans or schemas for future events.

(35) "When I tell you what you did wrong, you don't say you're sorry, because I already know you're sorry. And when you drive out of here alive, you don't thank me for being alive. And you don't even say good-bye to me." (NS.SC.188) [A Mafia enforcer dismisses an unsatisfactory employee]

The speaker of (35) takes a positive epistemic stance towards a presupposed future background situation wherein he will tell the addressee what he did wrong and let the addressee depart alive. Against this background, he states his present plan for the addressee's participation in this future scenario: he unilaterally schedules the addressee's apologetic and grateful departure, without further words. He can count on a good match between his present plan and the future events, since he's an armed enforcer.

Other temporal conjunctions may also be used for predictive reasoning, and they can also use the present tense to reset the baseline. We have noted that *as soon as*, *while*, *until*, or *before*, when used to talk about the future, also follow the pattern of using the present tense in the adverbial clause and predictive *will* in the main clause. But conjunctions such as *once* are less common in predictive constructions, and yet examples of such usage can be found. Consider (36) and (37).

(36) "But once you get local systems all over the world, all you got to do is hook 'em together and it's a global system." (NS.SC.115)

(37) Once Hiro has installed it [a virus scan program] in his system, it will constantly scan the information coming in from outside. (NS.SC.352)

The *once* clause in (36) clearly refers to a future situation, which serves as background to the ensuing planned scenario of constructing a global network. (A future form such as *all you'll have to do* would be conditional prediction only, not a presently scheduled result of P.) In (37), the *once*-clause, again describing a future situation, is followed by a prediction using *will*. Such examples seem to confirm that the "present tense for future" meaning and the predictive *will*-future form can perform related (though non-identical) functions in a variety of constructions. We will return to this issue in Chapter 9.

As a final example of the use of present with future reference, in conditional main clauses and in surrounding text, consider the following passage from Sue Grafton. A police detective is persuading Grafton's private detective protagonist, Kinsey Milhone, to secretly tape a conversation with a suspect who is possibly guilty of multiple murders, including the near-murder of Kinsey's ex-husband Mickey, who is hospitalized and may still die. Even if this tape is not admissible as evidence, the officer says it still will be useful. In the process,

he uses both *when* and *if* predictions with future-reference present-tense main clauses.

(38) (Officer) "Worst-case scenario – assuming what you get is juicy – you use the tape to refresh your own memory when you testify in court."
(Milhone) "Now I'm testifying?"
(Officer) "If Mickey dies, you do. Right?" (SG.OO.373)

This entire conversation is about a future scenario of the suspect's trial. It uses only present-tense forms. It begins with a double embedding, a temporal embedding inside a conditional one: if/assuming Milhone gets "juicy" evidence on the tape they want her to use, then when she testifies, she will use the tape to refresh her memory beforehand. Milhone, noting the presupposition involved in *when*, namely that she will testify, questions that presupposition – interestingly, not with a future *so I'm gonna testify?* but with a present *now I'm testifying?* And the officer responds in the present, *If Mickey dies, you do*. Both interlocutors talk about the future events as a presently fixed scenario, since Milhone is tentatively concurring with the officer's scenario – and in fact ultimately goes through with it.

Finally, note that the "planning" use of the present, like predictive *will*, can occur in protases, but not when the conditional is predictive: *If you are testifying, why aren't you more worried about being questioned?* evokes a *quotation* of a known plan to testify, rather than an assertion of such a plan. So this resembles the example cited at the end of section 4.4, *If you will be alone on Christmas Day, let us know now*. And the relationship of the two clauses is not predictive; that is, the speech act in the main clause is performed, not predicted.

We feel that overall it is a plausible hypothesis that at least much of aspectual choice in English conditionals is productively motivated by general semantics of aspect. There are special meanings of present-tense forms in conditionals: the use of present in future-reference backgrounds to future predictions, and the use of present to refer to a present plan about future events. These uses interact with aspect in ways which are outside the scope of this book – though it is worth noting that Milhone's progressive *I'm testifying* could be glossed also as "you'*re planning* that I testify," so that it may be possible to attribute aspect of verb forms partly to aspect of the background epistemic or speech-act processes, not merely to the aspect or Aktionsart of the content.

In sum, present uses with future meaning are common in predictive main clauses and are systematically distinct in interpretation from *will* or *gonna* forms in such contexts. They reflect a present plan or schedule, from which of course predictions about future eventualities can be inferred.

4.6 Generic meanings

We have not so far talked about the tense forms used in so-called *generic conditionals*. Generic predictions canonically take the form *If P-pres, Q-pres*, as in (39), (40), or (41). (The absence of *then* in true generics will be discussed in Chapter 6.)

(39) He gets angry if I leave the house. (AT.AT.54)

(40) In fact if you bring any reading matter they confiscate it. (AT.AT.145)

(41) He is a hacker. If he wants some information, he steals it right out of the guts of the system – gossip ex machina. (NS.SC.55)

The form of these generic predictions is not surprising, indeed it seems predictable from the preceding discussions of tense use. The present form in the P-clause fulfills the requirements for the background clause of a predictive construction and simultaneously manifests the form usually used in English for generic event reference. The present form in the Q-clause is simply the familiar English "generic present," which is a construction well attested outside of conditionals; Langacker (1991a, b) would say that it is a close relative of the "habitual" simple present discussed above.

Past equivalents of both forms are possible as well, producing descriptions of generic past conditions, with a "simple past" form in each clause. Example (42) is such a case, in a past narration. Discussed by a present experiencer of this conditional relationship, (42) would presumably be described as *If Mrs. Dugan can't come to the phone (which is often the case), Muriel talks to Claire instead*.

(42) If Mrs. Dugan couldn't come to the phone (which was often the case), Muriel talked to Claire instead. (AT.AT.238)

Generic conditionals are predictive, in the sense that they describe a predictive relationship between a state of affairs in P and the causally dependent state of affairs in Q, over a generic class of mental spaces. For any given mental space, if P is known to obtain, then the eventuality with respect to Q will be predictable.

Not surprisingly, other markers of generic space construction co-occur harmoniously with generic conditional forms. In (43), for example, a repeated pattern of romantic relationships is described. The indefinite noun phrase *new men* sets up the role which is filled by different individuals in each of the specific spaces generalized over. The definite pronoun *they* can then be used to refer to both the complete set of individuals involved (*they were always the most exciting men in the world*) and specific subsets (*If they were artists . . .* , *If they flew small planes . . .* , and so on). The generic conditionals involved amount to specifications of smaller generic spaces, generic subsets of the larger generic romantic space described (see Fauconnier 1985 [1994] and 1997 on generic spaces).

(43) She was always taking up with new men, and they were always the most exciting men in the world, to hear her tell it. If they were artists, why, she had to give a party and get all her friends to buy their paintings. If they flew small planes on weekends, she had to start pilot's lessons. If they were political, there she was on street corners thrusting petitions on passers-by. (AT.AT.64)

When parallels *if* in the construction of generic dependency statements; this is standardly exemplified with statements of regularities in the behavior of the physical world, such as (44) and (45) (shown in Diagram 3):

(44) If you heat water to 100 degrees, it boils.

(45) When you heat water to 100 degrees, it boils.

It is the generic character of (44) and (45) which is conducive to this particular overlap between the interpretations of *when* and *if*. In (44), the addressee is prompted to set up some space wherein water is heated to 100 degrees; the use of the unmodified generic mass noun *water*, together with the possibility of a generic interpretation of *you* in English, contribute to the interpretation of the water-heating situation as a generic rather than a specific one. This reading is confirmed by the simple-present-tense form *boils* in the main clause, since English simple-present forms of non-stative verbs are not used with specific present-tense reference in main clauses. We thus interpret (44) as meaning that in general, boiling of water is conditioned by heating to 100 degrees. By very similar mechanisms, (45) is interpreted as meaning that in general, boiling of water is cotemporal with (the end state of the process of) heating it to 100 degrees. Although not all uses of *when* inevitably involve strong causal connection between the two clauses, such an interpretation is not only possible, but encouraged by the generic reading: if two events or situation types are generally connected by simultaneity or temporal sequence in a regular

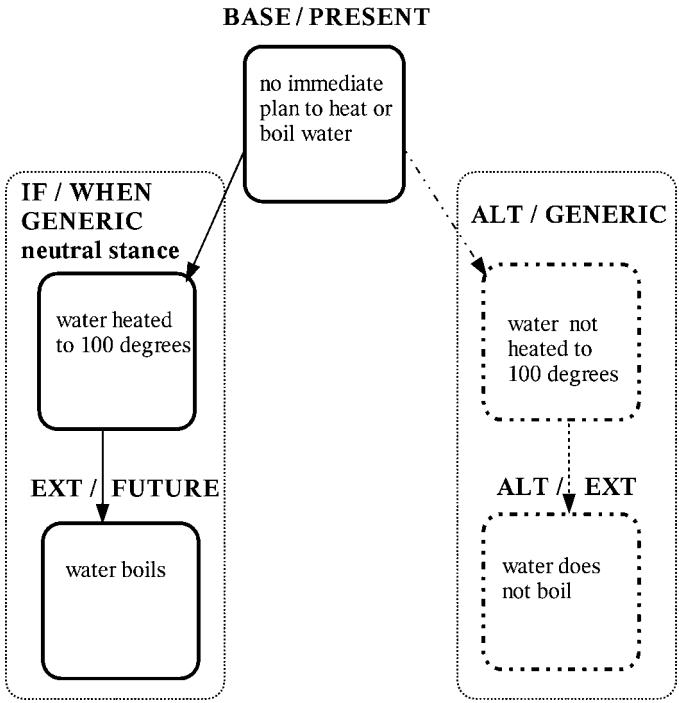

Diagram 3 *Example (44) If you heat water to 100 degrees, it boils. Example (45) When you heat water to 100 degrees, it boils.*

fashion, then some causal connection between them is plausible. On the other hand, a conditional describing a correlation (as in [44]) naturally evokes temporal connection as well; we do not naturally take (45) as meaning that the water boils at some other time than the time it is heated.

Genericity thus further blurs the distinction between the contextualized interpretations of the positive epistemic stance involved in *when*-clauses and the neutral one which characterizes *if*-clauses. Example (44) makes no claim about there being any actual documented instance of heating water to 100 degrees, and (45) is making a claim so general that specific instances are not directly at stake. Some particular actual case is different from some particular hypothetical case; but how different is a potential random choice out of the whole world of real instances (nearly all of which are not currently actualized) from a potential random choice out of the world of hypothetical instances, some of which might become actualized?

Real examples closely resembling the minimal pair in (44) and (45) are not hard to find. Consider (46)–(49), all of which describe generic correlations.

(46) When a neighbor doggie barks at a stranger, pictures and sounds and smells come into his head along with the bark. (NS.SC.90)
[Describes the internal states of a robotic guard dog in a future "gated neighborhood."]

(47) When a Brandy flutters her eyelashes, you can almost feel the breeze. (NS.SC.63)
[A "Brandy" is a cheap mass-market model of computer "avatar," or visual representation of self in the virtual world of the computational Metaverse.]

(48) A long-range retinal scanner. If you turn towards him with your eyes open, the laser shoots out, penetrates your iris, . . . and scans your retina. (NS.SC.125)

(49) He and the other nice doggies bark whenever a stranger comes into their yard, or even near it. (NS.SC.89)
[The same robotic dog as in (46).]

There are probably contextual reasons for the choices of *when*, *whenever* and *if*, in (46)–(49), but those reasons have less to do with the events being described than with the viewpoint taken towards those events. Example (46) is describing the robotic guard dog's everyday routine from its point of view; as we shall see below, *if* can be used to describe the same correlations. The presupposition of P which is involved in the choice of *when* in (47) is clearly intentional: we are to assume that the sort of person who would have a Brandy as her avatar is the sort of person who will inevitably flutter her eyelashes, whether in reality or in the Metaverse. In (48) the retinal scanner is being used by a snoop at a rock concert; neither he nor the reader can know which characters will happen to get within his range and into his database. Therefore the focus is not on the regularity with which the device operates, but on the possibility for any individual in the vicinity to be affected. Example (49) stresses the completeness of the robotic dog's attention to security; the choice of *whenever* rather than just *when* with the generic verb forms is reinforced by the added comment that they bark even when a stranger is nearby, not merely when one comes onto their property.

We might thus summarize so far by saying that *if* in generics differs from *when* in generics in the same way that their non-generic meanings are different: *when* carries with it the assumption that the content of the *when* clause is true. And *whenever* gives added emphasis and profile to the completeness of the correlation described. Examples (50) and (51), one portraying a generic possible contingency, and the other an apparent actual regularity of the robotic

guard dog's life, show the expected contrast between *if* and *when*. The explicitly conditional verb forms in (50) would be incompatible with *when*.

(50) Then, if that stranger should come anywhere near his yard, he will recognize him. (NS.SC.90)

(51) But he can hear this doggie bark sometimes, when a bad person approaches his [the other robot dog's] yard. (NS.SC.89)

If is also specifically used in our data to delimit generic subclasses of generic categories. This was noted in (43) above, where *If they were artists* and *if they flew small planes* delimit subclasses of the broader class of men with whom this woman tends to get romantically involved. Example (52), which like (43) does not seem to be easily rephrasable with *when*, is a similar instance: out of the general class of robotic guard dogs, it is the ones who live nearby that get excited.

(52) The stranger doesn't hear him [the dog's "barking" is not at a humanly audible frequency], but all the other doggies in the pack do. If they live nearby, they get excited. (NS.SC.90)

Past generic correlations can be expressed (predictably enough) by the corresponding past forms of the present-present generic conditional construction just described.

(53) It worked just fine if you never left your hometown. (NS.SC.191)
[That is, you could always get the meal you expected, in a familiar setting, by going to the same cafe every day in your home town.]

Example (53) would presumably be stated by someone currently experiencing the correlation as *It works just fine if you never leave your home town* (see Fauconnier 1997 on generics).

There are generics which apparently have other forms besides the use of present- or past-tense forms in both clauses; (54), the continuation of (53), seems to be describing a general potential difficulty inherent in the scenario of (53):

(54) But if you went to the next town, everyone would look up and stare at you when you came in the door, . . . If you did enough travelling, you'd never feel at home anywhere. (NS.SC.191)

Example (54) is describing a past "problem" which has now been "solved" by the creation of major fast-food chains with identical restaurants in any location you travel to. The verb form *would look up* is of interest because it seems

potentially ambiguous between a generic/habitual past use of *would* and a past-embedded form of predictive *will*. That is, we can't be sure whether the present equivalent of the first sentence in (54) should be *if you go to the next town, everyone looks up and stares at you when you come in the door* or instead *if you go to the next town, everyone will look up and stare at you when you come in the door*. The same is true of *you'd never feel at home anywhere*, although the most plausible present paraphrase here is *if you do enough travelling, you will never feel at home anywhere*.

There are many instances of apparent overlap between past generic *would* and past predictive *would*, thanks to the fact that a generic conditional can have either a present or a future form in the apodosis. In (55), Anne Tyler's protagonist Macon is regretting that he is about to leave home and go to England.

(55) What a peaceful life he led here! If this were any other day he'd be making some instant coffee. He would drop the spoon into the sink and stand sipping from his mug while the cat wove between his feet. Then maybe he'd open the mail. (AT.AT.25)

The distanced conditional *If this were any other day he'd be making some instant coffee* seems to be a clear instance of a conditional *would*, a distanced version of predictive *will*. But as the passage moves on, and Macon is clearly thinking about his usual daily behavior, *he would drop the spoon into the sink* and *maybe he'd open the mail* seem just as plausibly interpreted as past habitual forms. Since the distanced conditional space is itself a past habitual one ("any other day" of Macon's life in this past-tense narrative), there is no need to choose between the two readings.[2]

Even standard examples such as (44) and (45) above provide some further puzzles: (56) seems acceptable with either a present or a future verb form in the apodosis, with a generic reading. And (57) is also potentially acceptable with either tense form, although the future seems less readily acceptable without context.

(56) If you heat water to 100 degrees, it boils/will boil.

(57) When you heat water to 100 degrees, it boils/will boil.

[2] The habitual use of *will* forms is only of tangential interest to our analysis. But we note that "habitual" uses such as *every so often someone will call up and ask for the family who used to have this phone number* (meaning that every so often someone *does* call up and ask for the previous holders of the phone number) seem to have their basis in a generic prediction: if something happens habitually, you have the basis for predicting *future* habitual recurrence of that event.

It is our impression that the future apodoses add something to the generic correlation reading – the *will*-future versions of (56) and (57) seem more appropriate as warnings or helpful hints than as scientific statements about the behavior of water. This impression is confirmed by the only generic conditional example we have found with a future apodosis, (58). The speaker is definitely taking the viewpoint of a shopper who has a positive interest in the seller bringing down the price and is trying to get the seller to be willing to do so. We might wonder, therefore, whether the *will* in such apodoses is another manifestation of positive-interest *will*, or whether it is licensed by the general predictive conditional construction, which could certainly also license such forms. If the latter, then it is still noteworthy that some readers take the *will* forms of (56–57) as more specific and less fully generic than the present forms of the Q-clauses; (58) could certainly be seen as depicting the generic regularity via a representative instance.

(58) "If you say something's too expensive, they'll bring the price down till it's cheap enough . . ." (AT.AT.333)
[general description of Paris flea-market routine]

Luckily, it is not necessarily the case that we need to choose between these options. If some attested examples are multiply licensed by constructional generalizations which are needed independently, that is probably not a difficulty for speakers, and need not be a problem for grammarians.

Generic correlations can be expressed by other markers besides *if* and *when*, including some which will be discussed at more length in Chapter 9. Here are some examples of coordinate constructions with generic correlation readings:

(59) You get close to thirty, and these resolutions start to seem kind of hopeless. (AT.AT.28)
[Likely gloss: *When* you get close to thirty, these resolutions start to seem kind of hopeless. *If* would sound as if the speaker were leaving it as uncertain whether people are likely to reach thirty.]

(60) "Take all you own, and struggle to carry it? Or travel light, and spend half your trip combing the stores for what you've left behind?" (AT.AT.327)
[Gloss: Should you take all you own, given that if you do, you'll struggle to carry it? Or should you travel light, given that if you do, you'll spend half your trip combing the stores for what you've left behind? A gloss with *when* is also possible here.]

In Chapter 6, we shall argue that in fact the category "generic" should be further subdivided. We will present the evidence for a class of "indefinite"

conditional and temporal readings, as with noun phrase interpretation, which is then divided into specific ("any") and generic ("all") subclasses, both of these contrasting with specific definite interpretations. Context may determine whether a *when*-or *if*-construction receives a specific or true generic reading; but *whenever* explicitly marks the true generic nature of the correlation between the two events.

Generic correlations, then, are very commonly expressed by constructions involving present tense in both clauses. This is true for both temporal and conditional correlations. Specifically predictive forms are also possible: *will* futures can occur in the Q-clause, though not in the *if*-clause or the *when*-clause. Generic use of *will* and *would* interacts with generic conditionals, as well as with other kinds of generic statements. There is considerable overlap between the uses of generic temporals and generic conditionals, and between these constructions and the generic use of other constructions such as *and* and *or* conjuncts. In general, it is the verb forms which mark a conjoined construction as having generic reference, although *whenever* is a marker which can tip the balance in favor of a true generic interpretation.[3]

4.7 Definitions and tautologies

A common functional subclass of generic conditional and temporal uses is *definitions*. In spoken English, it is common to give definitions such as, *You're a student when/if you're registered for study at some college right now; when/if you're taking time off to work between courses, you're not a student*. Our sources provided definitional generic examples such as (61).

(61) "If you take an acre of rain forest or a cubic mile of ocean or a square block of Compton and strain out all the living stuff – dirt and water – you get the biomass." (NS.SC.75)
[Definition of *biomass* given by one character to another.]

A "tautological" conditional such as (62), like definitions, shows simple present in both clauses. But, as has been remarked in Wierzbicka (1987), tautological statements do not get interpreted as conveying tautologies. Just as (61) in context conveys a definition as well as an apparent generic prediction, tautological conditionals contextually convey various added meanings, many of which fall into some regular classes.

[3] Specific indefinite *whenever* examples may also exist, such as *Whenever you do get around to finishing that article, I'd like to read it*. This discussion will be continued in Chapter 5.

(62) . . . it would have wrenched his soul to have Ethan chosen last for any team. "Why?" Sarah asked. "If he's chosen last, he's chosen last. Let it be, why don't you." (AT.AT.18)

Indeed, (62) seems to mean both that there is nothing to be done about one's child being chosen last for a team, and that one should not spend too much concern on it. Similarly, (63) suggests both that being four is not something one can control, and also that age categories are transient and therefore less important than the addressee might think.

(63) "If you are four you are four. But you will be five the next year, and six the year after that. And . . . it only takes sixteen years to make you twenty." (FHB.LP.61)

Furthermore, (64) and (65) show that *when* tautologies have very similar inferences (e.g., inevitability and the uselessness of resisting it) to those which characterize conditional examples (62)–(63).

(64) "Tell me," said Duff, "suppose she yelled and no one came? Would she get it herself then?"
"I'll never know," Josephine said bitterly. "Boy, when she yells, she yells." (CA.CWS.124)
[description of a lazy employer by her maid]

(65) "It takes a lot to make her move, but when she moves, she moves." (JR.HMH.12)
[description of a large ship]

It seems to be a general fact that such repetitive tautologies convey added inferences, thanks to the contextual pressure to find relevance in a superficially useless statement. What is interesting about examples like (62)–(65) is that the same verb form occurs in both clauses, motivated in traditional analyses only by repetition; that is, the present tense *are* or *yells* is simply repeated for repetition's sake. By our analysis, there is a motivation for such repetition: a predictive conditional which expresses its apodosis as firmly grounded in the reset present of the protasis will express the apodosis in the present as well. In this case, the link could hardly be closer: the background event *is* all that is being predicted. The use of the present in the apodosis is thus constructionally motivated and, of course, also heightens the tautological effect by allowing for full formal identity between the two clauses. Such predictions imply, "that's all there is to say about it, don't pretend you're predicting something more on the basis of this." The "something more" whose prediction is rejected might be that, for example, not being chosen for the team would cause further social

consequences, or that the speaker or addressee might have to do something about it.

The interpretations in context of "tautologous" temporals and conditionals are varied. As just mentioned, some seem to function simply to limit predictive reasoning: *if you are four, you are four* agrees with the interlocutor's premise that four-year-olds are exactly (and no more than) four-year-olds, but by that very agreement limits further inferences (e.g., that older children should treat them as inferiors). In context, such limitations may advise directions of action: *If he's chosen last, he's chosen last* suggests both that we should not magnify the results of being chosen last, or infer that the child can't handle it, and also that no further action can or should be taken to do anything about it.

Both of the *when* examples above seem to suggest instead that there is added information in the second instance of the same clause. In particular, they are interpretable via an assumption that there's a difference between two categories of things which can be labeled in the same way: there are events one might *call* yelling, or moving, and other events which really *deserve* the label by being prototypical members of the category. But other *when* examples seem to have more of the reading that nothing further should be inferred from P. Consider the song words *The grand old Duke of York / he had ten thousand men / He marched them up to the top of the hill/ and he marched them down again. / And when they were up they were up / and when they were down they were down / and when they were only halfway up / they were neither up nor down*. The song's message is that the Duke of York's troop movements achieve nothing more than their new resulting physical location, with no added attendant inferences about strategy: this non-strategic activity is readily causally linked to the historical military disaster.

Some of the tautologies cited here are generic observations: *if you are four, you are four* is a general fact about the world, and *when she yells, she yells* is intended to describe the general, habitual behavior of the character referred to. In context, of course, *if you are four you are four* and *If he's chosen last, he's chosen last* are intended to be applied to specific situations: the speaker's intention is to suggest that the interlocutor consider how this reasoning applies to the immediate context of interacting with a specific four-year-old, or dealing with a specific instance of a child who is being chosen last for the team. But they nonetheless make general observations and offer general advice.

However, there are also examples which seem to be very specifically directed at the addressee's current situation, which she is advised to accept, e.g., *If you've got to have a diet, you've got to have a diet* (NS.WB.94). Although this form could be interpreted as a generic observation, in context it is clear that the speaker

does not think diets are in general unavoidable – rather, she thinks specifically that her eleven-year-old addressee will have to accept the diet decreed by her aunt and guardian, who is impossible to argue with. This reading seems pretty clearly not to be a generic content-level conditional reading, but an epistemic or speech-act level one: the speaker urges not inferring, or saying, anything more than the necessity of having a diet.

4.8 Specialized constructions with *was to / were to*, *if not for*, and *should*

In the sections above we examined the meaning contributions of general-use present, *will* and *gonna* forms. We shall now consider several specialized constructions which use distanced forms in ways not found in more open-ended contexts.

Two quite specific constructions add to the English repertory of distanced conditional uses. Both are interesting because they seem to have no precise non-distanced counterparts, so they cannot be seen as purely compositional combinations of distanced verb forms with other relevant elements.

The first of these is the *was to* construction, as in (66):[4]

(66) "If I was to take a brush to it, my hair would spring straight out from my head . . ." (AT.AT.101)

There is no parallel non-distanced *If I am to take a brush to my hair* counterpart of (66); present *be to* is a modal of obligation, a meaning not conveyed in this *was to* example. Example (66) conveys that the speaker does not treat brushing her hair as a plausible scenario. In that sense, it seems similar to *If I took a brush to my hair*. It seems, however, either even more distanced or less connected to the present situation: "In the unlikely event of taking a brush to my hair" or "If it happened to me to take a brush to my hair" might be plausible glosses.

In (67), the same character is talking to her lover and is anxious not to pressure him by making scenarios of marriage seem too close. She progresses from *if I was to marry* to the further distanced *if I was ever to marry*, and finally to *if I was ever to decide to marry*. The last usage has the added advantage of making clear that she is not portraying herself as having made any decision about wanting to marry, let alone projecting actual marriage. Similarly, in (68), the speaker's use of *were to* prevents her from seeming to press for sale.

[4] A number of attested examples of *were to* and *should* constructions can be found in Declerck and Reed (2001: 215–25).

(67) "If I was to marry, know what I'd do? Never tell a soul." . . . "I thought you'd never get around to it, is what she'd [= my mother would] say. If I was ever to marry." Macon braked for a traffic light. "If I was ever to decide to marry," Muriel said. (AT.AT.268)

(68) "But we'd have to fix that anyway, if we were to sell it." (AT.AT.293)

One clearly useful feature of the *was to / were to* forms is that they mark two distinct degrees of distancing. They make use of the fact that *be* retains a *was/were* contrast, while other English verbs do not, and apply the contrast to clauses with other main verbs.

The reason we need to treat *if X was/were to* as a construction of its own is simple. It does not share semantics with the equivalent present-tense (non-distanced) forms. Some dialects of English allow forms such as *If I am to brush my hair, you will have to get out of the way of the mirror*. These forms seem to convey a modal sense of obligation, or of how things are supposed to turn out: the speaker of *If I am to brush my hair* apparently thinks that she needs to, or should, brush her hair. In indirect discourse, past-tense forms of these occur as well: *She said that if she was to brush her hair, I'd have to get out of the way of the mirror*. However, the examples in (67) and (68) do not have this modal flavor. Far from wanting to convey that the hair should be brushed, that Muriel needs to get married, or that the house is supposed to end up being sold, the speakers want to distance themselves from any such viewpoints. It seems that we need to recognize that, whatever their historical relationship to the modal *be-to* construction, in American English *If X was/were to VP* is a special distanced conditional construction.

Another quite common special distanced conditional construction is the *if it wasn't/weren't for X* construction (and its inverted variety *were it not for . . .*). Like the *If X was/were to* construction, this is a special *if*-clause form, which does not seem to have much effect on the consequent clause's shape. It is also restricted to distanced reference to negative scenarios as in (69): no forms such as *If it was for Mrs. Brimm, I would have a place to live* or *If it's not for Mrs. Brimm, I won't have a place to live next week* are possible.

(69) "I was lucky, wasn't I," she said. "If it wasn't for Mrs. Brimm, I don't know what I'd have done." (AT.AT.178)

(70) This was all: the room would have appeared featureless and almost ascetic had it not been for the pictures and the home-made shelves crammed with books . . . (CK.YOD.72)

In fact, the construction can also be used in its verbless form (*if not for X*), with negative epistemic stance marked only in the verb forms of the main clause, as in (71)–(72):

(71) The thing that most struck me was the way they'd hushed up when Sal came over. If not for that, the joking would have seemed much less telling. (AG.TB.92)

(72) If not for the courage of the fearless crew, the *Minnow* would be lost. (From the theme song of the TV show *Gilligan's Island*)

The *If it wasn't/weren't for X* forms convey not only distanced epistemic stance, but also generally seem to carry a strong speaker-interest flavor. Not only was Mrs. Brimm actually present and helping – further, the speaker conveys an attitude of "Thank goodness Mrs. Brimm was there." The speaker of (72) similarly appears to think not only that the *Minnow* has a fearless crew and therefore is not lost, but also that this is a fortunate situation.

There is no precisely corresponding use of *for* in non-conditional constructions, or non-distanced conditionals. We cannot say, for example, *For the courage of her fearless crew, the* Minnow *was not lost*, or *If it's for the courage of her fearless crew, the* Minnow *won't be lost* or *If (it's) not for the courage of her fearless crew, the* Minnow *will be lost*. We might compare the *for* in *if it wasn't/weren't for* with usages such as *Thank goodness for Mrs. Brimm*. But it seems clear that we will need to describe *if it wasn't/weren't for* as a construction of its own, not fully predictable from the behavior of its parts.

There seems to exist yet another way to mark a specific kind of distance in the protasis. The modal *should* (which is a past form, particularly susceptible to the expression of distancing, see Nieuwint [1989]) is often used in protases referring to the future, and with apodoses which explicitly use the future *will*. In such contexts, *should* does not involve the meanings of obligation or necessity, but rather portrays the content of the protasis as only remotely possible. Thus, the speaker of (73) and (74) seems to consider the possibility of Rife getting on the plane and of Uncle Enzo's partners breaking their oaths as extremely unlikely.

(73) If Rife should, somehow, actually make it onto the plane, he will recognize his own pilots and think that everything is fine. (NS.S.459)

(74) It will amplify Uncle Enzo's displeasure if they should break their oaths. (NS.SC.459)

What is particularly interesting here, is that this type of restriction on the predictability of the protasis does not extend over the apodosis. In (73) and (74) *should* in the protasis is accompanied by *will* in the apodoses, which suggests that this type of distance applies only locally, to the content of the protasis. Once the protasis space has been set up, the prediction may follow in an ordinary fashion. This type of distance, then, does not apply to the whole construction, and thus restricts the possibility of the whole reasoning being understood as distanced.

Finally, we may note that *should* conditionals are sometimes used with inversion in the protasis, and without *if*. For example, (74) could be rephrased as *Should they break their oaths, it will amplify Uncle Enzo's displeasure*. This special inverted-protasis conditional construction is also possible with counterfactual *were* and *had* + *Past Participle*, but not in others. As Dancygier (1998) suggests, fronting (and thus highlighting) of the expression carrying the distanced meaning may be the goal of such inverted protases.

4.9 Conclusions

Several general patterns have emerged from this examination of the contribution of verb forms to conditional constructions. The first is that verb forms do indeed often make an orthogonal contribution to that made by the choice of clausal conjoining mechanisms. Although the relation of predictions to background clauses is a central function of *if* and *when*, even in *if*-clauses (as we shall see in the next chapter) the right verb forms must also be present to express a predictive conditional. And a predictive conditional relationship can be expressed with those verb forms, even in the absence of any conjunction. Similarly, uses such as the generic present and the use of present with future reference also operate across formal categories of temporal and conditional constructions.[5]

The second general point is that it is relatively common to find patterns which are licensed by more than one broader construction. This is the case with some of the *will* and *would* uses we discussed above, as well as with some of the ambiguous present/imperative examples. Such double licensing is one reason why speakers are not always aware of differences between their grammars: a speaker may extend a particular licensing pattern, but still be using

[5] We believe the "narrative present" (see Fleischman 1990 for discussion and references) with past reference is not particularly relevant to this discussion, although Neal Stephenson's helpful decision to write the novel *Snow Crash* in the narrative present has in some cases provided us with examples where narrative past-tense use did not interfere with other kinds of distancing mechanisms.

it frequently in ways which fit the specifications of another pattern available to speakers around her. As Fillmore and Kay (1999) have pointed out, it is not until someone produces an example of the English What-Is-X-Doing-Y (WXDY) construction which could not be licensed by the regular WH-question construction (e.g., *what is that table doing with a scratch in it?*) that we are forced to be aware of the presence of a separate WXDY construction.

And finally, like other important functions in language, the expression of conditionality involves both some very general constructions, which combine with each other in highly compositional ways, and some very specific ones whose constructional semantics must be treated individually.

5 *Non-alternatives and alternatives: mental spaces in different domains*

"If Utah's your sister, are you Wyoming or Nevada?" (SP.HT.75)

5.1 Non-prediction and non-alternativity

We now move to extend the preceding analysis to categories of conditionals which do not involve alternativity.

(1) If you need any help, my name is Ann.

When a speaker uses a speech-act conditional such as (1), she doesn't intend to set up for her hearer two alternative spaces, one in which the hearer needs help and the speaker's name is Ann, and another in which the hearer needs no assistance and the speaker's name is something else (see Diagram 4). Similarly, as noted in Chapter 1, a speaker of Austin's famous *If you're hungry, there are biscuits on the sideboard* does not mean that the biscuits are not there, or even not offered, if the hearer is not hungry. Speakers of such conditional speech acts do not seem primarily involved in setting up alternative spaces. Rather, the antecedent is used to specify the mental-space background against which the offer (embodied by the consequent) is made (Nikiforidou 1990, Sweetser 1990).[1] Of course, these examples also don't seem to be in the business of prediction. The examples just cited are making offers (albeit in a hedged manner), not predicting offers; nor are they predicting the immediate contents of the consequent clause, the specification of the speaker's name or the fact of the biscuits' location.

We suggested above that the predictive function is a central one in the network of functions filled by conditional forms; we also claimed that it is the conventional connection with this predictive function which ties a conditional

[1] A particularly interesting study of the subjectivity parameter of this evaluation in Greek conditionals is given by Nikiforidou and Katis 2000.

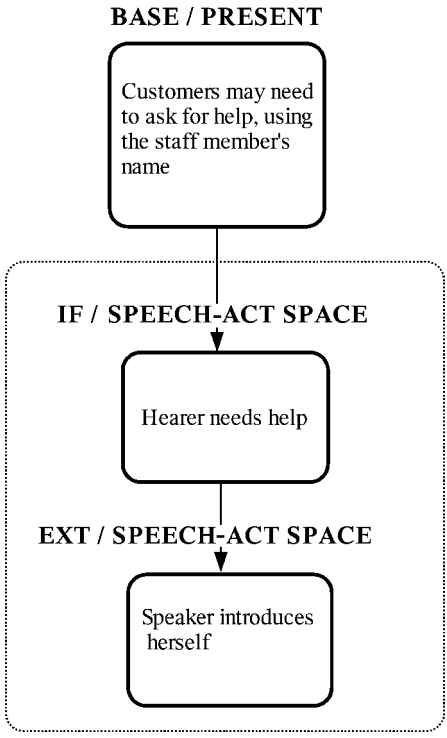

Diagram 4 *Example (1) If you need any help, my name is Ann.*

form to the set-up of alternative spaces. In this chapter, we will examine some less canonical and central members of the conditional category, at least as that category has been chronicled in the literature.[2] They are in fact very common in usage: indeed, *if you need any help, my name is X* is a standard conventional self-introduction from a restaurant or store employee to a customer. But intuitively they are quite different from the predictive conditionals described in the last chapter, which have been the most central examples of conditionals for grammarians and linguists. Most obviously, the addressee would have to be very uncooperative to reply with *And what is your name if I don't need any help?* The relevant categories we will discuss are the ones mentioned in our introduction, which connect protasis and apodosis in non-content domains: epistemic, speech-act, metalinguistic and meta-metaphorical conditionals.

[2] An early exception to the lack of grammatical documentation in this area, and a personal hero of ours, is Otto Jespersen, whose (1940) grammar of English does not omit epistemic and speech-act conditional examples.

The specification of the speaker's background to drawing a conclusion or to committing a speech act, although unrelated to prediction, fills many other important interactional purposes. For example, it may simply be a hedge to prevent the main-clause speech act from being taken the wrong way. A female restaurant employee would probably not want to walk up to a male customer and simply say *My name is Ann*. However, *I'm Ann, and I'll be your waitress this evening* makes it clear that the introduction is for purposes of restaurant business interaction; so does the conditional *If you need any help, my name is Ann*. The customer is thus not imposed upon by claims of personal acquaintance, nor encouraged to presume on a personal introduction.[3] On the other hand, it may be an acknowledgment of where the context comes from. A speaker may say *Oh, if it's raining, we can't go hiking after all*, in reply to *It's raining*: by using the non-positive-stance *if* in her framing, she does not cast doubt on her interlocutor's statement but simply acknowledges that the information about raining is secondarily acquired, not "her own" (see Schwenter 1998, 1999). These cases are among the multitude of reasons why speakers use conditional expressions for cases not involving prediction and alternativity.

Before we proceed, a note is in order with respect to Horn (2000), who claims predictive structure in a number of speech-act conditional classes, many of which do not appear to us to be speech-act conditionals. *One false move and I'll shoot*, or *No shirt, no shoes, no service* are content-domain predictives: that is, the content of the final Q-phrase is predicted based on that of the preceding P-phrase(s). These "coordinate" conditional constructions are dealt with in our Chapter 9. We should also note that "coordinate" conditionals such as *One false move and I'll shoot* achieve their force as deterrents (or, in other cases, inducements, see Fillenbaum 1986), as a whole construction, and precisely on the basis of the causal/content relation expressed. The Q-clause *I'll shoot* alone will not be interpreted as a deterrent, and can be used as a threat only in a specific context. Typical speech-act conditionals, such as *I'll do the dishes, if it's all right with you*, are different in that Q alone can perform the speech act – and indeed, *I'll do the dishes* seems to be a plausible offer of help without its P. Another of Horn's examples, *If it do prosper, none dare call it treason*, is a generic predictive content conditional (see Chapters 4 and 6).

Speech-act conditionals such as *Don't do the crime if you can't do the time* are perhaps the most complex of Horn's proposed predictive non-content examples, partly because of the same causal relations underlying valid content predictives

[3] Following, of course, R. Lakoff's (1973) rules of politeness.

such as *If I can't do the time, I won't do the crime*. However, we point out that the speaker of *Don't do the crime if you can't do the time* is not *predicting* a warning, but uttering an actual one, conditionally contextualized on the relevantly specified speech-act context. Such cases are similar to epistemic conditionals licensed by causal relations (see Dancygier 1998: 86). For example, *If she is not at home, she went to the dentist as planned* concludes Q from the premise P, based on the knowledge of a content relation such as *If she goes to the dentist, she won't be home*. Predictive reasonings may thus underlie non-predictive conditionals, but the two levels of interpretation remain separate.[4]

We begin our survey of non-predictive conditionals with speech-act conditionals and go on to the rest of the categories mentioned above.

5.2 Speech-act conditionals

Speech-act conditionals are cases where the *if*-clause appears to conditionally modify not the contents of the main clause, but the speech act which the main clause carries out.[5] Speech-act conditionals hardly ever comfortably allow distanced verb forms, and this is natural once we consider their normally non-predictive functions. In *If you need any help, my name is Ann*, the speaker does not really state her name only if the addressee needs assistance; she asserts the "apodosis" (or rather, engages in the speech act it represents) and contextualizes it with the protasis, which is an evoked and shared context (see Diagram 4). There is no predictive relationship: not only does the speaker say that her name is Ann no matter what the hearer needs in the way of help (in Diagram 4, the extension space represents an unrestricted act of introducing oneself), but her name *is* presumably Ann no matter what. Performative status almost prohibits such a predictive relationship, since (however hedged), a word once said really is said, and a speech act performed is performed. There are no alternate scenarios in the speech-act world here (although there may be some playing on scenario structure – politeness may once have consisted in pretense that you would "take back" an unacceptable apodosis speech act). The speaker accesses a context in which it is possible that the hearer may need help (or, in the original Austin [1961] example *If you're hungry, there are biscuits on the sideboard*, a context in which he may be hungry) and sets it up as the background to an utterance.

[4] See Sweetser 1990: Chs. 4 and 5, on inversion of content reasoning in epistemic conditionals and causals.

[5] See discussion and references in the section of Chapter 1 on speech-act conditionals.

With no alternative scenarios or predictive relations between clause contents, there is no basis for marking distance, since there is no contrast between the speaker's stances towards different scenarios.[6]

Consider the contrast between the following pairs of examples ([1] is repeated from the preceding section):

(1) If you need any help, my name is Ann.

(2) #If you needed any help, my name would be Ann.

(3) "If you don't mind my asking," Hiro says, "what was your mission anyway?" (NS.SC.349)

(4) #If you didn't mind my asking, what would your mission have been anyway?

In examples like (1), the speaker offers his or her name as a means of summoning assistance and purports to do so on condition of assistance being needed. Crucially, there is no way that the listener can take the fact of the name itself as contingent on somebody's needing help: it is very difficult to get a content-level reading for this example. Similarly, in (3), the speaker presents his act of asking the question about the addressee's mission as conditional on the addressee's willingness to be asked about it.

Examples (2) and (4), on the other hand, are very difficult to make sense of. Speakers confronted with these examples seem forced to attempt to construct implausible content-level conditional readings for them: questions arise such as "Why would the person's name depend on whether you needed help?" or "How could the identity of this person's mission change depending on whether he's willing to be asked about it?" What is the problem with these examples?

(5) "If you've come to see Deirdre, she's dead." (SP.TV.113)

(6) #If you'd come to see Deirdre, she would be dead.

In (5), the husband of a murdered woman is (very callously) informing one of his wife's friends (PI Vic Warshawski) that his wife is dead. Once again, we notice that a distanced conditional version seems impossible with a speech-act reading: (6) can't mean that he would tell Vic about Deirdre's death if she had

[6] Gilles Fauconnier points out to us that a parent leaving a babysitter in charge of children might say *If you needed any help, the emergency number would be 911*, as well as *If you need any help, the emergency number is 911*. In such a case, the speaker seems indeed to be distancing the whole performance of the informative speech act, and it is possible that it is a genuine predictive speech-act conditional.

come to see her, although we could imagine some content-level reading wherein Deirdre's death itself depends on the distanced contingency of the visit.

(7) "If you knew she was dead, why did you come down here?" (SP.TV.113)

(8) #If you had known she was dead, why had you (would you have) come down here?

Similarly, in (7), having found out that Vic already knew about Deirdre's death, the husband presents the question about the purpose of her visit as contingent on the newly acquired knowledge. Again, (8) is almost impossible to read as a conditionally asked question, although once again one might work to find a content conditional reading for it.

Examples such as (9), where there is no full verb in the main-clause *Why not X* construction, are even harder to imagine in distanced forms.

(9) "But why not enlist? If you're craving life on the edge, why not the infantry?" (SG.OO.343)

There is thus a large class of speech-act conditionals which do not seem to have any distanced equivalents, unlike the content-level conditionals we have been dealing with in Chapters 2 and 3. Our initial hypothesis was that content conditionals were the only conditionals which allow the use of distanced forms (Dancygier 1993, 1998; Dancygier and Sweetser 1996, 1997; Sweetser 1996b). But, as we shall argue in this chapter, the real generalization lies deeper. If distancing in conditionals is really connected to predictive use (and especially to the building of alternative spaces, one of which is the rejected or "distanced" alternative), then distanced forms should be impossible when prediction is not involved. This explains both the impossibility of constructing speech-act level conditional readings for the distanced examples (2) and (4), and also the tendency to try to make up predictive scenarios (even ones based on pragmatically unlikely content-level causal connections) as interpretations of (2) and (4).

Example (10) seems to be a speech-act example whose distanced form would be acceptable and the reason for this is that a genuinely predictive reading is possible. The speakers are a fifteen-year-old girl who is serving food in a cafeteria, and a man who has just walked up to the cafeteria counter.

(10) "I'll take whatever you're offering," the guy says. In English. Sort of a crisp accent. "I'm not offering anything," she says, "but if you want to stand there and browse, that's cool." (NS.SC.342)

(11) . . . but if you wanted to stand there and browse, that would be cool.

The speaker of (10) first says that "I'm not offering anything" – i.e., if the man actually wants something, he can't get it. Alternatively, if he wants to stand there and browse, that will be OK with her (*cool* seems clearly used in the sense of "all right"). On the surface, the conversation is about the food she is serving; but it doesn't make much sense with that reference, since she is in fact offering food. In context, they seem to be metaphorically discussing his possible sexual interest in her, and she has told him "if you want sex, forget it; but if you want to look at me, I won't object to that." Since there are in fact two clear alternative speech acts here, there is real potential for seeing predictive structure in this conditional: depending on what he wants, her answer will be different. It is thus not surprising that a distanced equivalent (11), which depends on building up alternative-based predictive structure, is possible.

When, like *if*, appears to participate in the possibility for speech-act readings. Alongside restaurant and shop employees who introduce themselves with *If you need any help, my name is X*, alternate formulas include *When you're ready to order, my name is X*, where the accepted reading is an instruction for the customer to consider the employee's speech act of self-introduction as likely to become relevant or useful at the moment of readiness to order.

The syntactically somewhat truncated example (12) was observed on road signs in the Vancouver area:

(12) When amber lights flashing, prepare to stop.

What this sign means is something like *Take this sign as a "Prepare to stop" sign during times when you see the amber lights flashing*. It does not mean *wait till the amber lights are flashing and then prepare to stop*, or any of the more obvious content-level temporal readings.

A particularly common pattern of speech-act *when* usage combines a *when*-clause with a rhetorical WH-question, as in (13):

(13) Why end up suffocating on your own entrails out in back of some Buy 'n' Fly when you can put on a crisp terracotta blazer and become part of a jovial familia? (NS.SC.146)
[The line of reasoning which led a character to decide to work for a Mafia-owned pizza chain rather than for a competing convenience store chain.]

We would not expect *when* examples to allow distanced stance verb forms, since *when* is marked for positive epistemic stance, but the impossibility of distanced forms is also *consistent* with the non-predictive function of speech-act *when* constructions.

Returning to conditionals, it seems clear that speech-act conditionals generally resist the possibility of distanced verb forms. According to our account, this is because they are not generally predictive in function and do not involve alternatives.

5.3 Epistemic conditionals, inference, and causality

Like speech-act conditionals, epistemic conditionals often seem to be non-predictive and do not set up alternative spaces. In (15), the likeliest interpretation is not that typing was a (causal?) precondition for loving (a reading parallel to [14]), but that the speaker's knowledge about the typing is a precondition for a conclusion about loving. Further, under this interpretation, the speaker seems to be involved in drawing the conclusion as she speaks: this is neither a prediction about a conclusion to be drawn nor a description of a general relation between premise and conclusion, but a performative act of reasoning aloud.

(14) If he loves her, he'll type her thesis.
[Content-level predictive conditional: The loving is a precondition for the typing.]

(15) If he typed her thesis, he loves her.
[My knowledge that the typing happened is a precondition for my conclusion about the loving.]

As with the speech-act conditionals above, the reasoning is performed, and the conclusion is drawn, although it is presented as conditional to the interlocutor (Sweetser 1990, Dancygier 1998). Often the function of such a conditional is simply to give background to the addressee, by invoking the relevant parts of the cognitive context which brought about this conclusion (Nikiforidou 1990, Sweetser 1990). It might even have been the addressee who originally contributed the content of the protasis (e.g., [15] might have been preceded by the hearer saying "He typed her thesis"). No alternative spaces are thus being set up: rather, a single shared space is evoked as background to the reasoning of the speaker.

Examples (16)–(17) provide further elaboration of epistemic conditionality. Both display obvious markers of the epistemic nature of the conditional relationship. First of all, the protases are about the reasoning processes involved. *If I was right about* and *If you accept that* explicitly mark possible premises as starting points for reasoning. *Probably* and *that means* mark the epistemic status of the conclusions drawn from these premises. These markers are by no means necessary to communicate epistemic conditionality, but they confirm

the epistemic reading when present. In fact, (17) then continues with a second epistemic conditional which lacks explicit markers.

(16) If I was right about Baladine not doing on-site surveillance, then I could probably leave again as long as I was quiet about it. (SP.HT.248)

(17) "If you accept that the universe is infinite, then that means there's an infinite amount of chances for things to happen, right?" ". . . Well, if there's an infinite amount of chances for something to happen, then eventually it will happen – no matter how small the likelihood." (AG.TB.74)

Note that in both (16) and (17), the speaker is not directly engaged in building alternative spaces. Example (16) notes that the speaker has already reasoned that Baladine is not doing on-site surveillance; and (17) enlists the interlocutor as supporter for the assumption that the *if*-clauses hold, before engaging in conditional reasoning. The *if*-clause in such cases is primarily there to lay out the reasoning processes of the speaker and make them accessible, within that single mental space, rather than to engage in comparison between alternative spaces.

Although (18) does not explicitly mention the speaker's reasoning processes (shown in Diagram 5), it does mention the addressee's possible erroneous reasoning, against which the speaker's reasoning is directed. The text comes from a fictional advertisement for better highway-surfing equipment, which answers a possible objection by suggesting that only an inexperienced surfer could be dubious of the ad's premises. Once again, there is no particular focus on building alternative spaces: and as a result, no necessary *iff* implicature that if you find the list of obstacles plausible, you therefore have not surfed too many ghost malls. Similarly, the classic bumper-sticker *If you can read this, you're way too close* does not implicate that anyone who's too close can read the text.

(18) If you think this [a gory-sounding list of the things that a highway-surfer can run into] is unlikely, you've been surfing too many ghost malls. All of these obstacles and more were recently observed on a one-mile stretch of the New Jersey Turnpike. (NS.SC.27)

Epistemic modals are also frequent clues to an intended epistemic-level interpretation of a conditional relationship, as in (19)–(20), where the context makes it clear that the uses of *must* cannot be root/deontic uses. Instead, they are marking the certainty of the premise, or of the conclusion which is enabled by the premise.

(19) Besides, if this guy's using a pay terminal – which he *must* be, to judge from the image quality – it can't jazz up his avatar. (NS.SC.41)

(20) "Okay, Richard, but there must be a way down, no? If people go to this beach, there *must* be a way." (AG.TB.84)

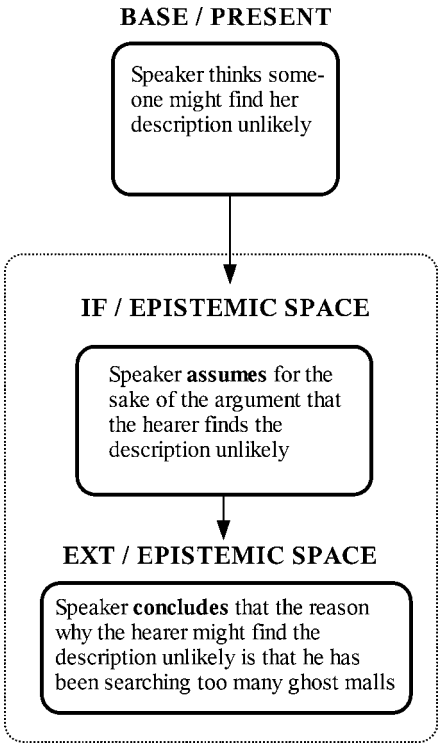

Diagram 5 *Example (18) If you think this is unlikely, you've been surfing too many ghost malls.*

We noted above that some epistemic conditionals stand out as obvious precisely because they are apparent reversals of content causal and conditional patterns: *He loves her, because he typed her thesis* is likely to get an epistemic reading because we might normally imagine someone being motivated to help type a thesis by love, rather than love being caused by typing a thesis (Sweetser 1990). Humans reason constantly and readily both from cause to likely effect, and from effect to plausible cause. Examples (21) and (22) are attested examples of the way in which reasoning and language use can go back and forth between conditionals which are about the relationship between cause and effect in contents, and conditionals which are about the conditional relationship between a premised belief about some situation and a consequent conclusion about the cause which effected that situation.

(21) "You do Sugg an injustice," said Lord Peter; "if there had been any signs of Thipps' complicity in the the crime, Sugg would have found them." (DS.WB.122)

(22) "Similarly, he thinks Mr. Thipps may have concealed the body in the box-room or elsewhere. Therefore you may be sure he searched the box-room and all the other places for signs of occupation. If they had been there he would have found them, because he was looking for them. Therefore, if he didn't find them it's because they weren't there." (DS.WB.123)

The speaker, Sayers' detective Lord Peter Wimsey, is responding to critical remarks concerning the investigation of a crime scene by a police investigator named Sugg. Lord Peter begins with the conditional statement in (21). We need to add the further assumption that Sugg was looking, but this all constitutes a good content conditional line of reasoning: the presence of the evidence, and a search for it, are causal conditions for the event of finding it. This line of reasoning is resumed in (22): *If they had been there he would have found them*; this interestingly adds the other background condition (*he was looking for them*) in a *because*-clause. But then the line of reasoning seems to reverse itself, as Lord Peter says *if he didn't find them it's because they weren't there*, which reasons from non-finding of evidence to the likely possible cause of such an eventuality – the absence of evidence to find. This is clearly an epistemic conditional: non-finding is not a conditional cause of lack of evidence, in the content domain, but belief or knowledge about non-finding may be a conditional cause for concluding that the evidence was absent.

Fascinatingly, the Q-clause of the final epistemic conditional in (22) is not just *they weren't there* (although Lord Peter's point is indeed that if Sugg didn't find the evidence, it probably wasn't there). Instead, it reads *it's because they weren't there*, maintaining a marker of content causal relationship alongside the epistemic-level conditional structure marked by the *if P, Q* construction. This kind of double marking of causal and conditional relations is quite common, and forms like "if X, it's because Y" are mechanisms for maintaining the balance between the expression of the two levels of relationships.

As with content conditionals, epistemic conditionals need not be fully spelled out. Example (23) provides a complex example of conditional theorizing, with the possible conclusions only half-specified. The reader presumably is supposed to fill in something like "then one could easily reason that the ship might have blown up, as a result of fire contacting a gas leak."

(23) But it was a bang, definitely. If there had been a leak, or the gas bottles on board the South Stack had gone rusty, then perhaps one of the men, lighting a cigarette maybe, or putting on the kettle for a brew . . . (JR.C.89)
[Speculation about the disappearance of a large trawler at sea in good weather.]

When, like *if*, occurs in epistemic as well as content-level uses. The examples we have collected both come from publicly posted signs.

(24) When lights flashing, workers on deck.
[Sign on Lion's Gate Bridge, Vancouver, June 2001.]

(25) When the door is locked the restroom is occupied.
[Sign on restroom door in a restaurant in Truckee, California, March 1999.]

In both these cases, the content-level correlation described would be most likely to be the other direction: *when workers are on the deck, lights are/should be flashing*, or *when the restroom is occupied, the door is/should be locked*. The causally dependent variable in the correlation would normally be in the main clause, the causally prior variable in the *when*-clause. But these signs are directed at observers, instructing them what to conclude from observing flashing lights or a locked restroom door. We might gloss them as "If you see flashing lights, then be informed that there are workers on deck" or "If you find the restroom door locked, you should conclude that the restroom is occupied" (rather than imagining that you need to get a key from the restaurant staff).

When also, like *if*, marks background to conclusions which may be contrasted with the expected ones. In the example below, the thinker was originally occupied with "this puny Sushi K thing," and has decided instead to put energy and time into investigating another character.[7]

(26) No point in wasting time on this puny Sushi K thing, when Raven is out there, representing a much larger source of income. (NS.SC.134)

Once again, as with speech-act examples, we note that epistemic *when* examples inherit the positive epistemic stance of *when*. The majority of epistemic conditionals, similarly, seem to be resistant to negative epistemic stance and distanced verb-forms, not because of any restrictions imposed by *if*, but because they are non-predictive in function and do not focus on alternative spaces. Rather, they build a single space as "given" background to the reasoning which follows from it.

5.4 Non-predictiveness and verb forms

As we observed in Chapter 4 in our discussion of *will* in conditional protases, verb-form patterns observed in predictive reasonings are largely relaxed if the

[7] See Traugott 1982, 1989; König and Traugott 1982 on epistemic senses of other temporal forms such as *while*, *yet*, and *still*.

conditional is used to represent a reasoning process which is not predictive. We have pointed out in earlier work (Dancygier 1993, 1998; Sweetser 1996b) that restrictions on tenses in conditional protases and apodoses do not apply in the same way when the conditional link is not intended to be at the level of the contents of the two clauses, but at the level of their epistemic or speech-act relationships. This is for two reasons. First, non-predictive conditional uses do not show the backshifting and distanced verb form uses characteristic of predictive conditional constructions. And second, the connections between temporal reference and causal structure are broken in such cases: a present or future event cannot cause a past one, but a belief about a present or future event can cause a conclusion about a past one, or a speech act concerning a past one.

In further confirmation of the fact that epistemic conditionals are immune to the general "sequence of tense" restrictions imposed on content conditionals, consider cases such as (27)–(30):

(27) If he's going to the play, then he got tickets yesterday.

(28) "If she was going back to the house, Albanac could follow her on his horse" – she can't be halfway there yet – and we might see what's wrong." (AG.MG.129)

(29) ". . . but hospital's the place for her if she's going to stay like this: she'll need special feeding, for one thing." (AG.MG.56)

(30) If Mr. Armani is so desperate to be seen as an artist, he should have allowed himself to be treated as one.
["Memo to Art Museums: Don't Give Up on Art," by Roberta Smith, *New York Times*, Dec. 3, 2000: 2.1 (cont. 2.35), re: the Guggenheim's "Giorgio Armani" exhibit]

These tense sequences are acceptable because the conditional relation is not at the level of content: a real-world cause cannot follow its effect. However, as mentioned above, in reasoning we may move from knowledge about an effect to a conclusion about a cause or enabling condition, or vice versa. So there is no need to find it odd for a "wrong" sequence of tenses to occur in non-predictive conditionals. A belief about a pluperfect situation may condition a conclusion about the future, although in a content conditional this would be at least an odd conjunction of tenses. In these epistemic examples, the reasoning process is correctly presented as P before Q; the temporal relations are thus irrelevant to the conditional structure.

Speech-act conditionals show tense behavior parallel to that of the epistemic ones. In fact, speech-act conditionals show no discernible constraints between the verb forms of protasis and apodosis:

(31) If you will be going to Paris, why did you buy a ticket to Tokyo?

(32) If you're interested, I gave/will give/had just given a paper on speech-act conditionals.

(33) "If ever a fellow deserved a sticky death, it's this Deacon brute." (DS.NT.263)

(34) "I'm always here for you," he whispered. "If anything has happened to Sammy and you need a shoulder or an ear . . . you know where to find me." (MHC.WNMML.203)

(35) "If you're coming so often on account of Grandfather, it's not necessary." (AT.AT.147)

As with epistemics, some of these tense and aspect combinations follow naturally from the functional differences between predictive and non-predictive conditionals. A speech-act conditional, as mentioned, does not predict the making of a speech act: it conditionally performs it, using the protasis as a mechanism for evoking the relevant background. And since the relevant background may have content referring to situations in any time frame, while the content of the speech act itself may also refer to any time frame, the two verbs do not show any relation of tense sequence. Their tenses are engaged in content-reference for the individual clauses, not in structuring the conditional relationship at the speech-act level.

Insofar as tense forms indicate epistemic stance rather than temporal reference, we may say that negative-stance uses of tense-backshifting would naturally show concord between protasis and apodosis in predictive cases, where the content of the apodosis applies only within the mental space set up by supposing the truth of the content of the protasis. But in cases where no such relationship exists between the two contents, where the only conditional relationship is between the epistemic states or speech-acts instantiated by the two clauses, there is less reason to expect a close relationship between the forms expressing the contents of protasis and apodosis.

Thus far, all the cases of epistemic and speech-act conditionals examined here have been non-predictive. In Sweetser (1990) and Nikiforidou (1990), evidence is presented to suggest that speech-act conditionals in particular, but also epistemic ones, tend to have "given" protases much more often than content conditionals do. The reason for this is that it is useful to present a conclusion or a speech act in the context which justifies it for the speaker. This not only minimizes the chances of misunderstanding but also allows the hearer to specifically negotiate premises and context, rather than directly contradicting the speaker (see Sweetser 1990; Dancygier 1993, 1998). A "given" protasis

is a more complex matter than referring to what is given in the spoken context; however, it seems reasonable to suppose that a "given protasis" cannot be engaged in setting up a space which is in explicit competition with its opposite. And indeed, we shall be arguing that speech-act conditionals are almost inevitably non-predictive, for this very reason. And, for the same reasons, epistemic conditionals are very frequently non-predictive, though not invariably so.

Since distanced verb forms are a convenient diagnostic of predictive function in conditionals, we might now expect to find that the use of such verb forms conforms to our classification of examples as predictive and non-predictive. In the following section, we will examine the use of distanced verb forms in epistemic conditionals, to demonstrate that they can in fact be predictive in function.

5.5 Predictive epistemic conditionals

Epistemic conditionals often resist distanced forms, but it is possible to get acceptable epistemic interpretations of some examples with distanced verb forms, as in (36).

(36) If he had taken only a one-hour oral, he'd be in the entering class of 1980.

Example (36) seems acceptable in a context where we assume that we just looked at this student's file, discovered that he had taken the three-hour oral exam required of all students entering in 1981 or later, and deduced that he entered in 1981 (the speaker and hearer had been debating whether he entered in 1980 or 1981). In such an example, the speaker is precisely setting up a scenario where the interlocutors discover that the student took a one-hour oral and conclude that he entered in 1980; furthermore, the speaker takes a negative stance toward this scenario, and a positive stance toward an alternate reasoning scenario. Both of these scenarios are predictive: that is, from the speaker's hypothesized discovery, she predicts the conclusion that she is likely to reach. Although premises and conclusions such as these don't stand in a causal relationship in most logicians' theories, it is clear that everyday models of the human mind see them as causally related and permit speakers to base predictions precisely on such a causal theory of mind.

As mentioned above, not all epistemic conditionals readily allow distanced interpretations, and most of the interpretations of such examples seem very hard to contextualize. Our claim is that distanced verb forms will be possible in such

conditionals precisely when the conditional is structured by prediction. This will in turn affect the degree of genuine hypothetical space building involved, and the extent to which alternatives are evoked. A speaker who says (20), *If people go to this beach, there must be a way*, is using this utterance to centrally express the conclusion that there must be a way, and indeed may be doing so in a performative way: "I hereby conclude this, as I speak." The protasis content is *evoked* mostly as an explanation to the hearer for the speaker's behavior, or as a link to an already established context; and in any case, such a usage does *not* involve setting up alternatives or imagining worlds where the evoked background is not true.

In such an epistemic conditional, the central content is certainly not the conditional relationship itself. Unlike *If it rains, they'll cancel the game*, where neither clause is asserted, but only the relationship, here the speaker is essentially asserting the apodosis and contextualizing that assertion by evoking the protasis and laying out the conditional relationship. Not surprisingly, such conditionals don't have distanced forms. They neither focus on predictive relations, nor genuinely bring up two alternative predictive scenarios in the relevant (epistemic) domain. They still involve mental-space structure: the *if*-clause still sets out a mental space (perhaps evoked rather than built), and hence the use of the conditional construction is appropriate.

In many respects, then, we are adopting Haiman's (1978) point of view that conditionals are topics: one reason for using a space-builder is precisely to contextualize by indicating which already available information is the background to what is being said.[8] The distanced verb forms, which belong to the domain of prediction rather than just to space-structure in general, are inappropriate for such use, and therefore not interpretable in such a context. We would not expect to find much need for negatively aligned protases in such examples in any case, and hence there should be little need for apodoses that agree with them. Consider the following interesting contrast (Dancygier 1993, 1998), where the non-given protasis in (37) forces a predictive "content" conditional reading, while the given protasis in (38) tends to get a speech-act reading.

(37) If you were interested, she'd be his wife.
[sounds as if your interest could influence their marriage status]

(38) If you're interested, she's his wife.

[8] Traugott's (1985) observation that there is a crosslinguistic historical connection between conditional markers and topic markers is further evidence for the importance of the topic function in conditional meaning.

However, supposing we take (37) to mean something like "All the interesting guys are married; look at that guy over there, for instance – if you were interested, (I bet it would turn out that) the woman with him would be his wife." This is an example of an epistemic conditional where the speaker is presenting the likely conclusion or discovery as depending on a negative-stance protasis – and here, in this unusual example, we do find the dependence of forms which would be predicted by the conditional connection.

In discussing speech-act conditionals, we made the claim that the performative nature of speech acts was part of the difficulty in achieving a predictive interpretation of speech-act conditionals. The same might be argued for epistemic conditionals: one might say that in *If he typed her thesis, then he loves her*, the speaker is displaying the active process of performing reasoning, and that the reasoning process should be taken as performatively expressed here. Indeed, the possibility of implicitly evoking the speaker's reasoning processes stems precisely from the connection between a performed speech act and the mental states that it represents the speaker as having. However, as we have just seen above, it is also possible to set up alternative epistemic sequences, divorcing the implicit reasoning sequence from the currently performed reasoning in a way that one cannot divorce a speech act from its performance. Predictive conditionals are thus possible in the epistemic domain, but essentially impossible in the speech-act one.

Our claim, then, is that when conditionals involve structures of mental space configurations that are different from content conditionals, this is reflected in their freer form. But where there is real predictive conditionality involved in the mental-space structure, the restrictions on form which apply to predictive conditionals will be followed. And where there are constraints on the temporal relationships of causally related events, those restrictions will be reflected in corresponding restrictions on sequence of tenses in conditionals describing those events. In general, tense use in conditional structures in English does reflect semantics, including mental-space structure.

5.6 Metalinguistic conditionals: predictive and non-predictive uses

Metalinguistic conditionals can also be used to engage in prediction based on alternative spaces. When they are so used, distanced verb forms should be possible according to our analysis; but in non-predictive uses, verb forms will be unconnected with each other and will not be distance-marking forms.

A metalinguistic space is a complex space consisting of a pairing of a content space and a language or code space. Certain metalinguistic conditionals can in

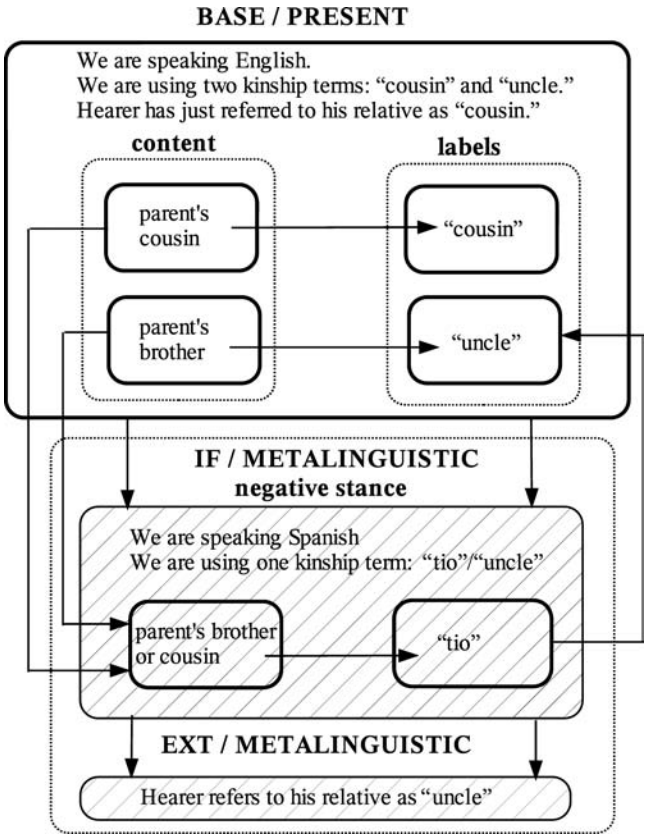

Diagram 6 *Example (39) If we were speaking Spanish, he would be your uncle.*

fact set up two separate complete metalinguistic spaces – that is, two separate pairs of content and linguistic spaces, with independent mappings between them.

(39) If we were speaking Spanish, he would be your uncle.

In examples like (39) (see Diagram 6) there is an English-speaking content space (the base space, the speaker's interpreted reality), with a corresponding set of English labels; let us say that the relative in question is actually the addressee's father's cousin, and the speaker knows that the role of parent's cousins standardly takes the label *cousin*, not *uncle*, in her English dialect. Contrasting with the English-speaking space, there is a Spanish-speaking content space where

events of usage occur in another way and are mapped onto corresponding Spanish language labels: the speaker here imagines that the role of father's cousin receives the Spanish label *tio*, also used for a parent's brother. Both of these spaces are structured by predictive-type relationships: on the basis of the correlation between language and labels, the speaker uses the language being spoken as a basis for predicting the choice of labels.[9]

In other cases, however, metalinguistic conditionals do not set up two full alternate metalinguistic spaces. In (40) (see Diagram 7), there are not two separate content spaces, a space where the addressee excuses the speaker's choice of words and they are in business to get the criminal arrested, and an alternate space where she does not excuse his choice of words and they are not in business to get the criminal arrested.

(40) "That's what we're in business to do, get this cocksucker nailed, if you'll excuse my Greek." (SG.OO.373)
[male police officer talking to female private detective about a criminal they are trying to catch]

No matter what the choice of words may be, the speaker intends to convey unconditionally that they're in business to bring the criminal to justice. Only the judgment of vocabulary appropriateness allows for possible alternate scenarios – and even that is more of an apologetic comment on the speaker's part, rather than a serious attempt to evoke hypothetical states of affairs at any level (alternate choices of label for this role might include *murderer*, *criminal*, etc., as opposed to *cocksucker*). The most we could say in constructing alternatives here would be that the speaker expresses an essentially unconditional content and allows for the possibility of alternate ways of expressing that content. The apodosis material is in no way dependent on, predictable from, or caused by the protasis material, since the former operates at the content level and the latter at the metalinguistic level. Since there are neither two full alternate spaces, nor are the expressed claims predictive ones, it is natural that there is no "distanced" equivalent of this example: there is no intelligible speech-act reading for something like *That's what we'd be in business to do, get this cocksucker nailed, if you'd excuse my Greek.*

[9] In another interpretation of this example, not discussed here, the speaker could mean that she thinks that in a Spanish-speaking world, *social relationships* between the hearer and his father's cousin or uncle or friend would be different, causing different labels to be chosen. This reading seems to involve a much closer, more unified, cultural space, where relationships and labels are co-present in a single space.

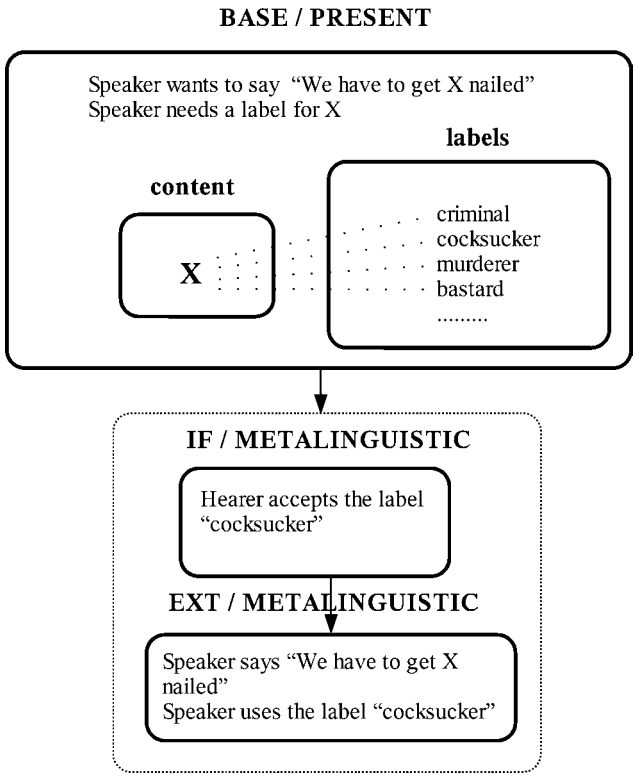

Diagram 7 *Example (40) That's what we're in business to do, get this cocksucker nailed, if you'll excuse my Greek.*

What does it mean to talk about "predicting" linguistic form choices, or reasoning patterns connected with the content of clauses? Surely epistemic and metalinguistic conditionals are not normally performing the predictive function in the same way as predictive conditionals at the content level. In *If Hiro takes the hypercard, then the data will be transferred from this guy's system into Hiro's computer* (NS.SC.44), the speaker lays out a conditional prediction based on a background mental space ("Hiro takes the card") and predicts transfer of the data. The utterance shows a pattern which could help speaker or hearer to decide what to do to prevent the transfer. For comparison, in our predictive examples of epistemic conditionals, the speakers seem to be engaging in considering alternative reasoning patterns partly to emphasize the correctness of the chosen pattern. If one can show that the only alternative is incorrect, one is

reassured about the validity of one's conclusion. (This is of course an important difference between content and epistemic conditionals, as it is between content and epistemic modality: in the world of reasoning, it is often preferable to reduce one's options, while in the world of action it is generally taken as preferable to have more options.)[10] So although these epistemic predictions do display alternative mental spaces of premises, and predict different conclusions depending on the premises, they engage in this prediction for different reasons than content conditionals do, and the prediction is not about a future event.

Predictive metalinguistic conditionals, similarly, set out connections between metalinguistic space and form choice, and make the claim that the form choice can be predicted based on the relevant mappings between form and content which are defined by the metalinguistic spaces in question. They are predictive, therefore, but once again this prediction is not engaged in making a statement about a future event's probability or about the possible courses of action of the speaker. They are more like generic conditionals, in a sense, in that they express a connection between form and content in a metalinguistic space, a predictive connection which is generally valid, even if it also applies specifically to the ongoing speech act. For example, the speaker of *My ex-husband, if that's the right word for him*, expresses a general doubt about the mapping between the label *ex-husband* and the relevant individual, not only a doubt as to the appropriateness in the utterance performed. And, similarly, in the predictive *If we were speaking Spanish, he'd be your uncle*, the speaker does not mean that this connection holds only for this speech act but makes a general claim.

Conditional prediction, in this technical sense of the term, is thus not only the conditional prediction of contingent future events. Contingent futures are indeed a central reason why predictions can be conditionally made. But there are a wide range of reasons for humans to set up one thing as a basis for predicting another, whether as a general rule or as a specific instance. Epistemic and metalinguistic conditionals show that speakers often want to predict reasoning and linguistic usage, as well as events. As in content conditionals, these predictive conditionals highlight the connections which make one alternative contrast with another. In content conditionals, the hearer is invited to imagine, for example, the network of causal factors which make people cancel a tennis match on a rainy day and refrain from cancelling it on a sunny one. Similarly, in a predictive epistemic conditional, rather than just displaying the space against which a conclusion is drawn, the speaker highlights the bundle of correlations between (for example) exam length and date of degree or program entrance and presents them to

[10] See Sweetser 1990: Chapter 5.

the hearer explicitly as part of the reasoning process involved in reaching the conclusion.

The above examples show that, contrary to previous analyses (Dancygier 1986, 1992, 1998), predictive use is possible in the metalinguistic domain. However, most of the attested examples of metalinguistic conditionals are non-predictive and therefore do not observe any tense restrictions. Furthermore, these are often characterized by an unusual clause-order sequence, such that the metalinguistic *if*-clause is embedded inside the Q-clause, rather than following or preceding it. In her earlier analysis (1986, 1992, 1998) Dancygier notes that such an option has to be available to metalinguistic P-clauses, because they comment on a particular fragment of the Q-clause rather than on the clause as a whole. It has to be clear which particular expression is being qualified, hence the required adjacency of P and the expression.[11]

The following examples show how metalinguistic *if*-clauses can qualify the speaker's choice of words:

(41) Technically, if you can get technical about such things, maybe I did hold it [a kiss with his friend's girlfriend] for a couple of seconds too long. (AG.TB.68)

(42) In this vision of her – if you could call it a vision, considering that he never did glance over at her – she was wearing a bright blue dress from the early days of their marriage. (AT.AT.10)

(43) Lemour thought he could get me, but I would make a monkey of him. That seems to be the gist of my thinking, if acting solely on impulse can be called thinking. (SP.HT.222)

Metalinguistic clauses, as we can see, focus on a chosen expression, often by repeating it. Thus (41) repeats and comments on the word *technical*, while (42)–(43) comment on the applicability of descriptions such as *vision* or *thinking*. Additionally, they all employ expressions such as *if X can be called Y* to specifically highlight possible doubt about the acceptability of Y as a description for X, even though Y has already in fact been used.

Example (44) is a more complicated case. In the first *when*-clause the expression *cuts through the crowd* can easily be understood idiomatically, as a

[11] Dancygier (1992, 1998) uses the term "metatextual" to refer to our metalinguistic examples. The focus of her analysis is somewhat different from our goals here, hence our return to the previously used term "metalinguistic". Whichever term is used, the intended meaning of both Dancygier's (1986, 1992, 1998) and Sweetser's (1990) analyses is that metalinguistic P-clauses express comments on the choice of linguistic expressions (contrary to the claims of Declerck and Reed [2001: 354], we did not describe metalinguistic protases as centrally expressing sufficient conditions rather than comments).

description of swift and decisive motion. Only the second clause (*he really is cutting through the crowd*) instructs the reader to interpret the expression literally. The literal interpretation would not have been possible in the real world, but it is appropriate in the virtual world, where avatars can pass through each other.

(44) So when Hiro cuts through the crowd, headed for the entrance [. . .], he really is cutting through the crowd. (NS.SC.40)

In sum, both epistemic and metalinguistic conditionals seem to be commonly used to set up non-alternative spaces. At the same time, it seems to be possible – though not frequent – to engage in alternative-space-based prediction at the epistemic or metalinguistic level. When such prediction is involved, it is also possible to use the verb forms characteristic of predictive conditionals, including distanced forms when appropriate.

5.7 A note on meta-metaphorical conditionals

Meta-metaphorical conditionals[12] are conditionals which express a relationship between metaphorical mappings. An attested example is (45), taken from an article contrasting San Francisco's Golden Gate Bridge (a focus of tourism and publicity) with the San Francisco-Oakland Bay Bridge (which carries more traffic but gets less public attention):

(45) If the beautiful Golden Gate is the thoroughbred of bridges, the Bay Bridge is the workhorse. (*San Francisco Chronicle*, Nov. 11, 1996: A13.)

Example (45) establishes and develops a metaphorical relationship between two domains: bridges and horses. The "horse" domain allows one to rank the animals with respect to genealogical history, beauty, and value; only some of these comparisons are naturally possible among bridges. Once we establish a metaphorical mapping allowing us to talk about bridges in terms of the features normally used to talk about horses, we can also compare bridges in such terms. An interesting fact about such conditionals is that they are, in a sense, a variety of metalinguistic conditionals. Example (45) can thus be read as "If you accept the possibility of metaphorically talking about bridges as if they were horses by agreeing to call the Golden Gate the thoroughbred of bridges, you will also accept calling the Bay Bridge a workhorse."

The following examples give some added idea of the kinds of meta-metaphorical conditionals found in texts we have examined.

[12] See Sweetser 1996a.

(46) There was good reason to believe that our clannish island was the very centre of the world. God Himself had assured us of that, in so many words. If the Church Triumphant was at the heart of all things, then the Anglican parsonage was the living heart of the Church. (JR.C.82)

(47) If Duncan Oaks was the hub, maybe Mark Bethel was the axle driving subsequent events. (SG.OO.360)
[A detective speculating about individuals' roles in the crime sequence she is trying to reconstruct]

A beautifully elaborate example of a meta-metaphorical conditional was provided by a *New York Times* article about upscale shopping on Long Island. (The Americana at Manhasset is apparently the ultimate ritzy shopping mall; Georgina and Janet Brown are exclusive women's clothing boutiques.)

(48) If the Americana at Manhasset is suburbia's Madison Avenue, Georgina, just west of the mall, and Janet Brown, a few miles away in Port Washington, form a sort of metaphoric Park Avenue. We are speaking here of the Park Avenue of Martha, the legendary shop where the locals came for their Pauline Trigere dresses and saleswomen always knew just what and where their clients would be drinking when those dresses left the shop. (*New York Times*, July 25, 2000: A23)

Using both a conditional and the XYZ ("X is the Y of Z") construction discussed by Turner 1991 and Fauconnier and Turner 2002[13], the author of the article sets up a metaphorical mapping between Long Island and Manhattan. The Americana at Manhasset mall maps onto upper Madison Avenue, an upscale shopping area which is large and varied in its offerings and publicly visible, even though it includes plenty of stores where no ordinary customer could ever afford to shop. The Georgina and Janet Brown boutiques map onto the more exclusive shops of Park Avenue, which have personal relationships with a limited and extremely wealthy clientele.

In (49), the author also provides a nice "X is to Y as Y is to Z" analogically formulated summary of one part of the metaphorical mappings involved. Just because the Americana is a "mall," don't assume it's like other malls; its pricing, clientele, and goods are as different from those of your basic upscale mall as the shopping of upper Madison Avenue is from a backwater shopping area like Market Street in Poughkeepsie.

(49) The Americana at Manhasset is to "mall" as upper Madison Avenue is to Market Street in Poughkeepsie, N.Y. Comparisons don't obtain. (*New York Times*, July 25, 2000: A23)

[13] See also Brooke-Rose 1958.

As (48)–(49) show, metaphorical mappings can give rise to very complex reasoning, which has to be developed in the text for the reader to grasp all its complexity. At the same time, many constructions involving cross-domain correspondences may be used in the discussion of the same mapping.

Moreover, what starts out as a meta-metaphorical conditional, using the protasis to set up the mapping, can continue with an inference drawn within that mapping. Example (50) illustrates such a meta-metaphorical epistemic conditional.

(50) If public transit is the lifeblood of a dynamic city, Vancouver's in a coma. (*Vancouver Sun*, July 5, 2001: A11)

Such a combination makes perfect sense given the function of meta-metaphorical sentences. They seek a license to talk about one domain of experience in terms of another, but what will be said based on the proposed mapping will be limited only by the choices offered by a given type of construction.

We shall not give an extensive treatment of meta-metaphorical conditionals here, but it is useful to note that like other classes of conditionals, they can be either predictive or non-predictive. For example, one can imagine a speaker saying (51):

(51) If the Golden Gate Bridge were a thoroughbred, the Bay Bridge would be a workhorse.

The difference between (45) and (51) is that in (45) the speaker could be seen as simply presuming that the Golden Gate Bridge is to be mapped onto a thoroughbred, as part of the general background of discourse against which the new mapping (Bay Bridge = workhorse) is presented. In (51), the speaker is explicitly examining options, and the conditional relationship expresses the coherence between two mappings which are viewed as constituting one complex mapping option.

An attested distanced meta-metaphorical conditional is (52). The thinker of (52), a passenger in a car, is mentally commenting on the effortless coordination of the driver with the car, as if the two were part of a single mechanism or organism. Although (52) is presented as an indirect mental quotation adapted to the surrounding past-tense narrative, it presumably represents the character in question as having a thought which we could state as (53):

(52) It occurred to the girl that if the car had been a horse, he'd have been a centaur. (CA.CWS.9)

(53) "If the car was/were a horse, he'd be a centaur," she thought.

The conditional construction in (52) portrays the choice of one metaphorical mapping as predictable based on the other: if one describes the car as a horse, then one can or should describe the driver as a centaur. To this extent, (52)–(53) is parallel to the non-distanced example (45).

However, since metaphors are usually literally counterfactual (as Aristotle and many later analysts have noticed), the distanced forms are not just prompted by the fact that the car is not in fact a horse. Indeed, if we imagine a scenario where the car is being talked about as a horse – perhaps the driver has jokingly called his cherished new car a "thoroughbred" or said that he's eager to take it for a real "gallop" – then we can imagine his companion saying something like, "If it's a horse, then you're not a rider, you're a centaur."

In (52), the choice of distanced rather than neutral expression reflects the thinker's mental distancing of herself from the fanciful nature of the comparison; in context, this fits the author's general portrayal of her as a sensitive person trying to be hard-boiled and pragmatic. The choice of distanced verb forms prevents readers from fully identifying her with the metaphor, or with these terms as descriptions of the car and driver.

Likewise in (54), the author probably intends to emphasize the fact that although we can learn about Hiro's character by imagining his metaphorical "report card," at least some of the other inferences which we might metaphorically transfer from the source domain of the elementary school to the target domain of Life are likely to be dubious. Creative kids are not forced out of mellow elementary schools for being creative and individualistic rather than cooperative. But in the real working environment, super-hacker Hiro has ended up outside the world of high tech and delivers pizza for a living.

(54) The Deliverator used to make software. Still does, sometimes. But if life were a mellow elementary school run by well-meaning education Ph.D.s, the Deliverator's report card would say: "Hiro is so bright and creative but needs to work harder on his cooperation skills." (NS.SC.3)

Distanced meta-metaphorical conditionals, then, appear to be marking not the speaker's distance from the truth of the metaphoric equation involved, but rather distance from willingness to adopt it as an ongoing model, from which added inferences may be drawn. In our non-distanced examples, on the other hand, the authors or speakers (e.g., the author of the article on upscale shops) do not seem at all dubious about the validity of their literally false metaphors.

Meta-metaphorical conditionals are thus similar in crucial ways to epistemic conditionals (since metaphorical mappings are transfers of inference from source to target, e.g., from the horses to the bridges), and also to

metalinguistic conditionals (since, after all, we are choosing between metaphorical "labels").[14] Like these two classes, they may or may not be predicting one choice on the basis of another. When they are doing so, the possibility of distancing one option emerges and can be marked with a distanced verb form if the metaphorical mappings involved are not ones with which the speaker identifies.

5.8 Metaspatial conditionals

Finally, there are a class of conditional examples which do not fit smoothly into one of the categories mentioned so far (content, epistemic, speech-act, metalinguistic, and meta-metaphorical) but do clearly seem *metaspatial* in a broader sense. That is, the protasis seems to be setting up a background mental space, even if that space-negotiation process does not fall into one of the categories we have analyzed above. We should not find this surprising. Although certain levels of negotiation of mental-space structure are automatically and implicitly accessible to speakers and interlocutors – for example, the speech interaction, the content, or the existence of thought processes and linguistic forms which express them (see Sweetser 1990, Dancygier 1998) – others, like particular metaphoric mappings, need to be contextually built up. And similarly, other appropriate spaces can be built up as part of conditional uses as well.

Examples (55) and (56) present metaspatial conditionals which do not fall into the above-discussed categories. In (55), a columnist comments on the radical difference between the coverage of the French-language and English-language newspapers in Canada, during the time immediately following the death of past Prime Minister Pierre Trudeau. The English-language papers' coverage was dominated by Trudeau's death and by tributes to his life, while the French-language papers' lead stories were about a Canadian Olympic athlete who won a silver medal in Sydney instead of a hoped-for gold. The two spaces involved are the English media and the French media. The effectiveness of the second sentence in the example stems from the fact that it is formally indistinguishable from a possible content-level predictive. And it simply states that it was "a time to weep over an athlete's second-place finish," leaving the frame of the French newspapers as the only viewpoint-marker. Given that newspapers claim to be giving "news" rather than bias and viewpoint, the contrast between the two juxtaposed spaces constitutes a strong unspoken comment.

[14] Lakoff 1996 gives a rich treatment of the constructional characteristics of metaphoric Self-blends, including conditional ones such as *If I were you . . .*

(55) This was a time when we were all supposed to be feeling the same thing – according to the English media – a time when this beautiful country could unite in sorrow at the passing of our "greatest leader." Or, if you happened to read a French newspaper, a time to weep over an athlete's second-place finish. ("Montreal puts aside politics and weeps," by Katherine Monk, *Vancouver Sun*, Oct. 3, 2000: A3.)

Example (56) is a conversational exchange between detective Vic Warshawski and a little girl whose first name she does not yet know (it turns out to be Madison). Vic is fed up with this little girl's mean behavior and is taking refuge in sarcasm which she assumes the girl won't notice.

(56) "Utah's my sister. She can do better than me when I was her age, but my form is improving. I'm definitely better than Rhiannon. Want to see?" "Not today," I said. "If Utah's your sister, are you Wyoming or Nevada?" (SP.HT.75)

The conditional here might be paraphrased as something like, "If your parents would give a name like *Utah* to your sister, then I'd like to know what name they would give you," but it sets up a number of different types of spaces (see Diagram 8). In the base space, the speaker constructs an assumed correlation between names given to children in Utah's family and names of neighboring Western states of the USA. With that correlation as a premise, she can guess (conclude) what the addressee's name could be. But the conclusion still involves a choice (*Wyoming* or *Nevada*), so a question clarifying it is the final (speech-act) step in the configuration of spaces. The mental-space set-up also evokes a number of contextual assumptions concerning strange families, and the resulting name patterns, which are also responsible for the sarcastic tone of the remark. Since Vic has seen enough of the mother's behavior to guess that the girl is copying her mother's obnoxious attitude, it is significant that the sarcasm in (56) is directed as much at the parent (and presumed namer) as at the daughter who is addressed.

5.9 A note on frequency

As mentioned in Chapter 1, we have not tried to do overall statistical analysis of the frequencies of different types of conditionals in a large corpus. This would of course involve a great deal of hand-processing of rather indiscriminate search results. And we are not convinced that it would be terribly informative. Initial corpus work has led us to the conclusion that frequencies vary radically depending on the subject matter and the speaker's or author's goals. Savova and Sweetser (1990), in a study of the translation of conditional constructions

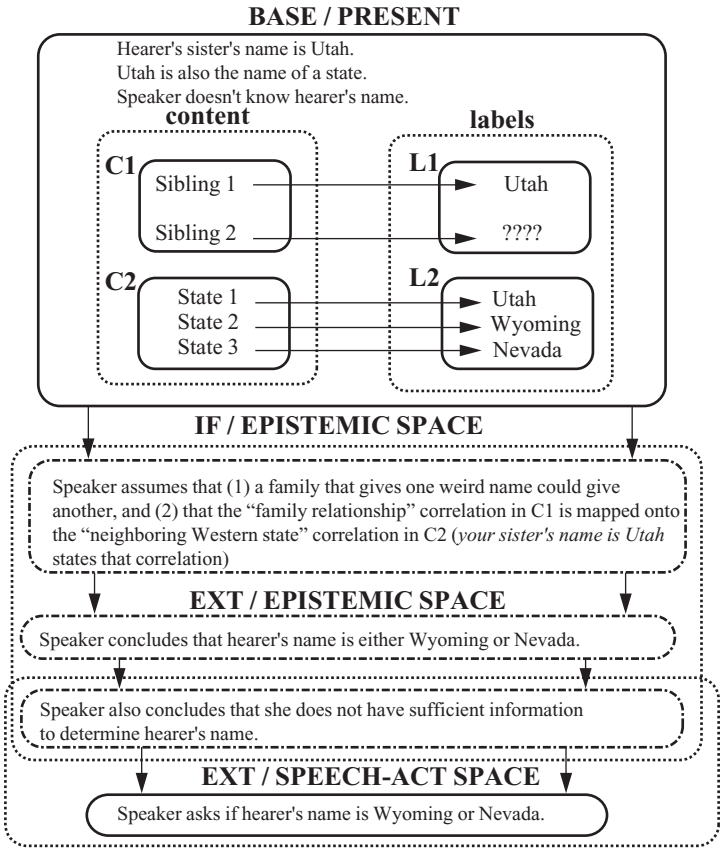

Diagram 8 *Example (56) If Utah's your sister, are you Wyoming or Nevada?*

between English and Bulgarian, found that some texts examined had almost exclusively speech-act and epistemic conditionals, some almost exclusively content conditionals, and some very few conditionals of any kind (one text was dropped from the study simply because a hundred pages provided almost no conditional examples). The major generalization which emerged from that study was that texts rich in epistemic and speech-act conditionals were texts centrally involving represented speech and thought. We have (as noted earlier) found detective novels to be particularly rich sources of epistemic conditional examples, because characters are constantly thinking and talking about their reasoning processes. We tend to feel that a statistical analysis of a large corpus might amount to a statistical analysis of how frequently the corpus

material was concerned with content, epistemic, and speech-act conditional relationships.

It does seem true that elaborate meta-metaphorical examples such as those in Section 5.7 are relatively uncommon, as are metaspatial ones. Once again, this may be trite and unhelpful as an observation about the linguistic forms; we may rather want to say that speakers are not most typically involved in meta-analysis of their mental-space constructions and mappings, or therefore in expressing the conditional relationships between them. Interestingly, although literary examples are certainly to be found, many of our best meta-metaphorical and metaspatial examples come from journalistic language – especially op-ed and news analysis writing, as opposed to reporting – and particularly analysis of sports and politics. Op-ed and news analysis work is precisely engaged in expressing and affecting overall construal, rather than in giving information about content; and op-ed and analysis writers are also frequently thought to be writing in a higher literary genre than writers of news articles. It thus seems natural that these are genres where we find more overt manipulation of metaphors and inter-space mappings. Such apparent correlations support our intuition that there are high levels of genre-dependence in the frequencies of classes of conditionals.

5.10 Evidence from German parallels

We have presented contrasts between classes of conditionals – the most crucial one being between predictive and non-predictive conditional uses. We have argued that the possibility for use of distanced verb forms in English correlates with predictive function. The functional classes in question are so general that we might well expect to find them relevant to the grammar of conditionality in other languages as well. We have cited Nikiforidou's (1990) argument that non-predictive speech-act conditionals in Greek show different grammatical marking from predictive content conditionals. But studies of German have provided even more extensive evidence in support of similar grammatically marked functional distinctions.

It is a well-established fact that German conditional clauses show a contrast between *integrative* and *non-integrative* word order (König and van der Auwera 1988, Köpcke and Panther 1989, Günthner 1999). Integrative order means that the complex conditional sentence as a whole follows standard German verb-second word order; the initial conditional P-clause counts as the preverbal constituent, and the following main Q-clause is thus verb-initial. This order is standard in predictive content conditionals, as in (57).

(57) Wenn morgen schönes wetter ist, fahren wir nach Wien. (Köpcke and Panther 1989)
Gloss: if tomorrow nice weather is, drive we to Vienna.
"If the weather's fine tomorrow, we'll drive to Vienna."

Non-integrative order means that the P-clause and the Q-clause each show independent verb-second order, as one would expect if the whole conditional were a sequence of two coordinated clauses. This non-integrative order is saliently manifested by speech-act conditionals, as in (58) which would be unacceptable with the word order pattern of (57).

(58) Wenn du meine Meinung hören willst, Harry ist ein Idiot. (Köpcke and Panther 1989)
Gloss: if you my opinion hear want, Harry is an idiot.
"If you want my opinion, Harry is an idiot."

Köpcke and Panther state that the non-integrative word order corresponds to functional contrasts, salient among which is the contrast between our content predictive conditionality and non-predictive "relevance conditionality." As will be noted in Chapter 6, the distribution of German *dann* (which, like *then*, is a conditional apodosis marker) gives further support for such a contrast. We hope for further, more detailed, comparison of German and English data, to determine exactly what the parallels and non-parallels between formal and functional classes may be – and also, of course, for further crosslinguistic comparison.

5.11 Conclusions

The model we have presented treats *if* as a "space-builder" which sets up or evokes a mental space, with respect to which the main clause is understood. The spaces constructed with *if* are marked as not involving positive epistemic stance, but do not tell a listener whether the speaker's stance to the space is negative or merely neutral. In English, choice of verb forms marks negative versus neutral epistemic stance in predictive conditionals. Prediction is here treated (following Dancygier 1993, 1998) as a central function of conditionals: speakers often use conditional forms to express the relationship between alternative scenarios of events, and the correlated events which it is predicted will result from the posited scenarios. The importance of this function may to some extent explain the intuition of many speakers that the content predictive conditionals are somehow "basic" or "good" examples of conditionals.

However, *if*-clauses may engage in space building not only as a basis for prediction (setting up alternative spaces and comparing scenarios), but also for non-predictive purposes of contextualization. In the latter case, normally the speaker's epistemic stance is one of provisional acceptance, and in any case it is impossible to use the verb forms which indicate marked (negative) epistemic stance, since those forms mark a rejected scenario as opposed to a preferred one. The commonality between the more "logical" kinds of conditionals and the more "pragmatic" ones, then, lies precisely in their neutral space-building function, while the differences surface in divergent patterns of verb morphology connected with more specific functions of conditionals.

In a variety of domains, it seems possible to have both predictive conditionals and non-predictive ones. We have seen examples of these possibilities for conditional structures whose relationship lies in the epistemic, metalinguistic, and meta-metaphorical domains. Speech-act conditionals, however, are apparently by nature non-predictive (and hence do not allow distanced verb forms); while content-domain conditionals are inevitably predictive, or at least inevitably have predictive interpretations which have negative-stance counterparts with distanced verb forms. The reason for these restrictions lies presumably in the fact that a speaker does in fact choose one speech act for presentation, and actually commits that speech act, even if in some conditional guise; while in the domain of content, a different set of contextual beliefs could always bring up some alternative space to the one set up, and hence a different causal chain of reasoning.

6 *"Then" and "even if": mental-space deixis and referential uniqueness*

> For even if he had stayed with Muriel, then wouldn't Sarah have been left behind? (AT.AT.310)

Does *if P, Q* really mean the same thing as *if P, then Q*? *If* has been regarded as defining the central class of English conditionals. Conditional *then* often seems to make no readily identifiable independent contribution to the meaning of a predictive conditional; certainly it makes no truth-conditional contribution. *Then* has consequently been thought of as an optional marker, grammatical rather than meaningful. And yet researchers have noted the absence of *then* in certain classes of conditionals, such as generics and concessives. In this chapter we present an analysis of conditional *then* and its interaction with other constructional features of conditionals.

We argue that *then* makes a compositional meaning contribution to conditional constructions and that its acceptability in a conditional is determined by the compatibility of its meaning with that of the particular construction. Cases of incompatibility can be used to explore both the semantics of *then* and those of the *If P, Q* construction. Finally, we will examine ways in which the interaction between *then* and other constructions can be shaped by the accessibility of content which is not overtly conveyed by the linguistic forms. A clash of constructional semantics can be resolved, it seems, by the availability of added pragmatic interpretive possibilities.

6.1 *Then* and biconditionality: what is the link?

Some analysts (Iatridou 1991, 1994; von Fintel 1994) have suggested that *then* alters the implicatures of the conditional in ways which make a biconditional

The earlier parts of this chapter parallel to some degree an earlier presentation in Dancygier and Sweetser 1997, though further developed with attested examples. The later sections on *even if* and *then* are essentially rethought, based on new data conflicting with previously accepted generalizations.

reading more likely.[1] That is, it has been argued that *then* in conditionals invites, at least partially, inferences of relationship between ∼P and ∼Q, as well as between P and Q. Such an interpretation overlaps with what Geis and Zwicky (1971) have described as an invited inference of conditionals in general, but attributes the source of the inference to *then*.

But we see an important contrast between the way in which biconditionality arises from *then* and from conditional constructions at large. Biconditionality is formally and conventionally linked to the use of *then*, but only contextually available as a possible interpretation of the conditional constructions with which *then* co-occurs. This situation reveals the semantics of *then* as contributing biconditionality to the construction. In particular, we might guess that *then* should correlate with alternative-space-based predictive conditional constructions, since we have seen (Chapter 2) that this is the subclass of conditional constructions which is tightly bound to the inference of *iff* biconditionality.

We will be arguing that *if*, distanced verb-forms, and *then* all have meanings which are amenable to bidirectional interpretation, in different ways, in the right pragmatic contexts. Although these interpretations do not arise from exactly the same sources for *if* and *then* and are not necessarily associated with *if* and *then* in every context, they are nonetheless regularly motivated. The implicatures arise precisely from the conventional semantics of *if*, from the conventional semantics of the "predictive" verb-form combinations, and from the semantics of *then* as it fits into the semantics of the conditional construction. Overall, English *if*-conditionals turn out to be more semantically compositional than might have been supposed, once the contribution of *then* to conditional constructions is understood to be related to the basic temporal deictic sense of *then*.

Chapter 2 has set out the pragmatic bases for the predictive uses of conditional constructions, and the semantics of verb-form patterns which mark conditional constructions specifically as predictive. We suggested there that the predictive function is linked to inferential structures which result in *iff* implicatures. Our mental-space analysis of predictive conditionals is also compatible with the use of a deictically referential *then*, which may refer not only to a temporal setting but to the mental-space set-up in the preceding *if*-clause. We shall therefore

[1] Comrie (1986) has discussed "bicausal" conditional examples (*If it'll amuse you, I'll tell you a joke*), where Q causes P and the pragmatic assumption of P is also taken as causally related to the saying of Q. "Bicausal" or "biconditional" is a misnomer here, since the only *expressed* conditional relationship is the speech-act conditional relationship between imagining P and saying Q, and not the potentially imaginable content relationship between joke-telling and amusement. See Sweetser 1990, Chapter 4; Dancygier 1988a, 1993, 1998, for discussion of these cases.

contrast this use of conditional constructions with other uses, where prediction is not at stake, or where there is no simple two-space alternativity underlying the prediction (no single situation contrasted with another one to allow an *iff* implicature). We shall see that *then* is incompatible with discourse structures and pragmatic uses of conditionals which would clash with its referential semantics. It is thus possible to give a motivated account of a broad range of conditional constructions, by combining a deictic semantics for *then* with an appropriate analysis of conditionality.

6.2 Deictic semantics and mental-space reference

How is the conditional use of *then* related to other temporal referential uses and discourse uses of *then*? Dancygier (1998) argues that the function of *then* is to re-introduce the protasis in the structure of the apodosis, but without the tentativeness which *if* imposes on the statement P, and also as necessarily prior to Q in some sequence. Schiffrin (1992b) observes that *then* has genuine anaphoric and/or deictic reference in all her attested spoken English examples of *if–then* conditionals. That is, *then* in conditional apodoses is anaphoric, referring to a time or a set of circumstances identified with respect to the event or state expressed in the *if*-clause.

In its more basic temporal reading, *then* may refer to a time which either follows or is cotemporal with the event or state expressed in the *if*-clause. This temporal use is anaphoric (referring to some contextually established time) and is also actually deictic within an abstract temporal domain. It points to a particular temporal mental space, identified as non-present (distal, not *now*), to the exclusion of other possible referent times.

More generally, *then* points deictically to a particular mental space, defined temporally or circumstantially, and locates the event or state described in the apodosis in that mental space. By insisting on location within a particular mental space, the conditional use of *then* brings on a natural inference that the content of the apodosis does not hold in other alternative mental spaces (why else insist that it holds specifically in *this* one?). Schiffrin notes that in nearly all of her attested examples of conditional apodoses containing *then*, there was also indication of a global contrast within the discourse: the time frame wherein P held and Q followed was more generally contrasted with one wherein P did not hold and Q did not follow.

Deixis is frequently allied to identification of one option among alternative candidates (*this* may suggest *not that)*. However, unique deictic pointing out of one entity need not necessarily evoke contrastive alternatives. There is a

difference between pointing and saying *here*! or *that one!* to an addressee who is looking in the wrong direction, and the same act performed towards an addressee who is already focused on the object in question. Although deictic reference is readily compatible with a frame involving explicit choice between alternative referents, it need not involve such a choice,[2] and may serve other purposes, such as emphasis.

The deictic semantics of *then* combined with the space-building semantics of *if* fit smoothly into a constructional interpretation involving identification of one alternative among competing mental spaces. As we conceive of physical locations as mutually exclusive (something which is *there* is not *here*), similarly we know that our experience of times is mutually exclusive (*then* is not *now*). This mutual exclusivity is retained in the use of *then* to mark presence in some particular abstract mental space as opposed to others (although strong foregrounding of the contrast may not be present). And, as argued in Chapter 2, predictive conditionals (involving *if* and appropriate verb forms) conventionally involve the *iff* reading which would be compatible with unique reference of *then*: Q holds specifically in the space defined by P.

It follows naturally that *then* can mark sequentiality, since temporal location after another event is one of its temporal senses. The sequentiality can be further interpreted as causality, as is often the case with constructions which are iconic of the actual sequence of events. The type of connection introduced into the interpretation by *then* can be seen in the contrast between sentences like (1) and (2) (from Davis 1983 and von Fintel 1994):

(1) If it is humid, then the TV will work.

(2) If it is humid, the TV will work.

As Davis states, (1) calls up the notion of humidity causing the TV to be functional. Example (2), which does not oblige us to construct such a causal connection (although of course it is open to causal construal), may simply mean that the humidity has no effect on the TV's functioning. Unlike (1), (2) is thus open to a concessive interpretation, which is less pragmatically odd than a direct conditional reading for this particular content.

To sum up, we suggest that *then* allows for the "∼P, ∼Q" inference precisely because it is a deictic referent for a mental space. It consequently both brings up the idea that P is the unique mental space in which Q is "located" and explicitly

[2] Although the referential semantics of *then* are here interpreted as unique only within a particular pragmatically established pool of possible referents, not in some absolute logical sense of uniqueness, an analysis combining logic with relevance could yield similar results.

marks the relevant connection between P and Q as causal and/or sequential. *Then* is thus interpreted to mean that Q necessarily follows P. In our everyday understanding of causation, we assume that if X "causes" Y, then not only will Y occur when X causes it, but it will not occur spontaneously and randomly without the prior presence of the cause, X. A sequential and causal interpretation of an *if–then* conditional, particularly with a deictically interpreted *then*, is thus readily extended to the conclusion that Q will not happen without P. This interpretation of *then* emphasizes and feeds the building of alternative mental spaces which we have argued is a standard feature of predictive conditional semantics: the bifurcation of relevant mental models into a "P and Q" world and a "∼P, ∼Q" world.

6.3 *Then* in non-predictives

Now, let us apply our account of the semantics of *then* to explain its interaction with a broader range of conditional constructions.

We predict that *then* should occur with conditionals only when there is a good unique referent space for it to refer to. For standard alternative-based predictive conditionals, this will always be the case. Many epistemic conditionals also fulfill this condition, as do some speech-act and metalinguistic ones. Like content predictive conditionals, attested epistemic conditionals therefore often seem equally acceptable with and without *then*.

(3) If Maud could hear, and Gertrude was blind, then Isabel was the active murderess. (CA.CWS.248)

Example (3) is a detective's past-tense summary of the reasoning processes which led him to correctly deduce the identity of a murderer. (The quoted reasoning processes would be something like *If Maud can hear, and Gertrude is blind, then Isabel is the active murderess*.) We may note that (3) would also be acceptable without *then*; indeed, the next sentence contains an epistemic conditional without *then: Because if Gertrude was really blind she could have been fooled*. The reasoning in (3) is not explicitly contrastive with other spaces; the relevant context is a broad justification of the already-accepted identification of Isabel as the criminal. But the speaker definitely means to convey that this conclusion holds specifically and uniquely in the one mental space he is evoking.

The use of *then* in epistemic conditionals is not only acceptable, but apparently preferred in a number of cases. Clause order in conditionals like (3) is not iconic for a sequence of events, but can be taken as iconic for a sequence of

steps in the inferential chain. Inferential structure is understood sequentially: the premise is presented as necessarily having to be known or verified before the conclusion can legitimately be drawn. This sequentiality is very naturally represented by a conjunction such as *then*. Crucially, reference to the epistemic "ground" of premises is useful even in cases where the ground is non-contrastive (Sweetser 1984 [1990], Nikiforidou 1990, Schwenter 1998, 1999). Identifying premises may simply serve to ensure that the hearer notices, or continues to notice, the shared nature of the basis for the reasoning process. But when the premises are explicitly identified, even non-contrastively, they are pointed to as the unique background mental space relative to which reasoning is conducted; such a mental-space construction makes anaphoric *then* a possible marker of the apodosis.

As noted in Chapter 5, protases of speech-act conditionals often establish background to the actual speech act, without necessarily evoking alternative spaces. Some such conditionals nonetheless clearly treat the referent space P as unique. The speaker of (4) is not really offering an alternative space where the stalking victim's "involvement" is accepted rather than denied, but pointing to a conversational background which she claims as shared. Nonetheless, in context, she also means it to be taken as the specific unique space which justifies her following speech act. In fact, the same space would justify her *conclusion* that there is nothing to talk about (which is implied in her speech act – if she sees no grounds for further investigation when a crucial witness is excluded, then the addressee must know of some reasons she is not aware of and should provide them). We would treat such epistemically motivated speech-act conditional uses of *then* as non-contrastive, but uniquely referential, cases of anaphoric reference. As such, they should allow *then* but should not evoke an *iff* inference. This seems to be the case in (4).

(4) "If she's not involved, then what on God's green earth are we talking about?" (SP.HT.137)
[The speaker, a detective, has been told that she can't talk to the person she is protecting from stalking, because that person "should not be involved."]

Example (4), like (3), seems to us remarkably equivalent in acceptability with and without *then*. This is because in both cases the context makes it clear that a unique context space is referred to; hence *then* only makes explicit what was otherwise contextually evident.

Speech-act conditionals are normally non-predictive in this manner, and epistemic and metalinguistic conditionals are frequently non-predictive. In these cases, although no alternative space is set up, a successful interpretation must

still establish links between P and Q, involving sequence and causal structure: if those links are seen as unique, *then* may be appropriate.

However, although *then* is not unusual in speech-act conditional examples such as (4), in which the speaker has cited shared conversational context in P and now explicitly ties that context to Q with referential *then*, in other kinds of speech-act conditionals *then* may work against the speaker's goals. Even non-contrastive reference to a unique entity, made explicitly, is more salient than simple evocation of the entity, or assumption that it exists. And explicit use of *then* in conditional apodoses, even non-contrastively, is sometimes too explicit to fill the function of speech-act conditionals. For example, although there is considerable variation, speakers seem quite reluctant to accept *then* in speech-act conditionals such as (5) and (6). Why should this be so?

(5) "If you don't mind my asking," said Hiro, "what was your mission anyway?" (NS.SC.349)

(6) "If you remember," I said, still conversationally, "somebody broke into Greville's office after he died and stole things. . ." (DF.S.235)

In (5), the speaker is trying to coopt the hearer's agreement to a precondition: *If you don't mind my asking* is really an attempt to presume permission by making the hearer's "not minding" a common ground. Hiro's goal is to sound as if he is offering options (hence the reference to the addressee's preferences), while not actually doing so (hence the presupposed status of the protasis).

To us, an example such as (5) sounds more plausible with *then* if P is based on the addressee's actual conversational record. So if an interviewer says, "Do you mind my asking what your mission was," and the interviewee responds "Oh, no, that would be fine," the interviewer might be more plausibly licensed to use *then* in (5). Under these circumstances, the speaker would have every reason to emphasize that the addressee's actual consent is the particular (and referentially unique) location of Q. However, the fact remains that we have not found attested examples of *then* used with this kind of speech-act conditional.

Deixis and referential uniqueness thus interact with the pragmatics of speech-act conditionals. To use a deictic form, even if non-contrastively, is to focus on the identification of the entity pointed to – to insist on that identity, and to ask the addressee to focus on it as well. When the precise identity of the mental space P, and its sequential relationship to Q, are intended to be brought up tactfully as implicit background, such focus and emphasis are not appropriate.

For similar reasons, (7) seems generally unacceptable to speakers, although the version without *then* is a standard idiomatic formula of professional self-introduction (see discussion in Chapter 5).

(7) # If you need any help, then my name is Ann.

Although the speaker is indeed justifying her self-introduction as part of business interaction, she would be churlish to insist on the exclusiveness of such purposes. Here two pragmatic factors are evidently involved: first, the inappropriateness of uniquely identifying P as the (sole) space wherein Q holds, since in fact Q is being performed regardless; and second, the impoliteness of emphasizing such exclusiveness.

Given these interactions between deixis and pragmatics, we can now see why speakers vary in their response to (8) (Austin's classic with *then* added).

(8) If you're hungry, then there are biscuits on the sideboard.

Part of this variation may be due to the fact that they are interpreting the background differently. If the speaker has no idea whether the addressee is hungry or not, it seems rude to insist on the specific circumstances under which the biscuits are offered, by adding *then*. However, if the addressee has just mentioned being hungry, *then* becomes a somewhat more reasonable option, since the offer is addressed precisely to remedy this specific circumstance.

As we noted earlier, speakers seem very ready to allow *then* in speech-act conditional examples such as (4) above, or (9).

(9) If you're so smart, why aren't you rich?

In our discussion of (4) we noted the inferential interpretation implicit in the speech act performed. Example (9) seems to suggest that the causal and sequential relationship between the *content* of the two clauses (intelligence is seen as likely to cause wealth, and must preexist in order to do so) is part of what makes *then* so acceptable in these cases. This example may thus parallel content cases such as *If Josie (your newborn daughter) is smart, (then) she'll get rich*, as well as epistemic cases such as *If he's so smart, (then) he's probably already rich*. At the same time, (9) also fits the general model above: emphasis on the uniqueness of P as a setting for Q here constitutes some reassurance that the speaker wouldn't normally ask a question such as *why aren't you rich*, even if alternative circumstances are not directly evoked.

Paul Kay has pointed out to us that many speech-act conditionals are susceptible to contrasting interpretations: (9), for example, could imply that the addressee is not smart, or it could be a genuine query about why an apparently intelligent person remains poor. Interestingly, in this case, these variations in intention do not appear to be relevant to the use of *then*, but all fall within its acceptable range of contexts.

Metalinguistic conditionals also allow *then* under some circumstances: (10) is fairly acceptable to some speakers, (12) much less so (in contrast to [11]), but (13) and (14) are quite acceptable.

(10) If we were in Louisiana, (then) you'd be eating "green trout."
[i.e., the fish that you are eating is called green trout in Louisiana.]

(11) OK, if we're gonna be picky, I'll just put another *trout* on the grill.
[You previously criticized my incorrect use of the word *salmon* – and that picky behavior is the condition motivating my use of the "correct" word *trout*.]

(12) ?If we're gonna be picky, then I'll just put another *trout* on the grill.

(13) If we were speaking Spanish, (then) he'd be your uncle.
[i.e., Speaker thinks that the Spanish word for "uncle," *tio*, is also used to refer to this person's relationship to the Hearer, e.g., father's cousin.]

(14) If you can call an Irish Catholic a *mensch*, (then) he's a *mensch*.

We have argued in detail (Dancygier and Sweetser 1996) that certain classes of metalinguistic conditionals do involve alternative spaces and hence must involve setting up a unique P space. The "distanced" verb forms in (10) and (13) mark these examples as predictive, and as setting up alternative spaces wherein the relevant linguistic forms are and are not used. The fish in (10) is called *green trout* precisely when one is in Louisiana, and not under other circumstances. Predictively used alternative spaces are candidates for deictic reference, so it seems reasonable that at least some metalinguistic conditionals should be possible candidates for marking with *then*.

However, *then* is absent from the (still relatively small) corpus of attested metalinguistic conditionals which we have identified. This could be because these examples are not cases of full alternative space building; and indeed, none of them seems as clear-cut as (10) or (13). But perhaps even more importantly, the usual clause orders employed in metalinguistic conditionals simply do not permit the use of *then*. As observed in Chapter 5, the most common orders – exemplified again in (15) and (16) – are (i) placement of the *if*-clause inside the main clause, as a comment attached to the expression being highlighted, and (ii) *Q, if P*. In neither of these cases does *then* have the possibility of referring back to a P which precedes Q.

(15) Each house – if that's what you call something with twenty rooms and four chimneys – was set so far back behind trees and fences that you saw only fragments of façades and gables. (SP.HT.71)

(16) At least it gave some reason for the attack on her – if there had been an attack. (MNC.WNMML.320)

Interestingly, meta-metaphorical conditionals, which often involve *If P, Q* order and also typically involve fuller space building than metalinguistic ones, can occur with *then:*

(17) If the beautiful Golden Gate is the thoroughbred of bridges, then the Bay Bridge is the workhorse.
[We have here added *then* to the attested example (45) from Chapter 5.]

(18) If the Millers are the Graces of Gotham's smart set, then the Hiltons are its furies. (*New York Times*, Sunday Fashion, August 19, 2001: 128)
[The Miller sisters are New York heiresses who receive positive media attention; the younger Hilton heiresses have gotten media attention mostly for misbehavior.]

There is no doubt that metalinguistic and meta-metaphorical conditionals are less common than content, epistemic, or speech-act ones, and they are also not easy to search for in corpora. Further surprises may yet await us in investigating these classes of conditionals.

6.4 *Then* and generic conditionals

We have seen that certain restrictions on the use of *then* can be explained in terms of its deictic meaning and its "sequentializing" function. Another observed regularity, noted by Iatridou (1991, 1994), is that *then* does not occur in generic conditionals. We have argued elsewhere in more detail (Dancygier and Sweetser 1997) that this restriction also follows from the deictic referential semantics of *then*; after briefly summarizing that argument, we shall proceed to show how *then* interacts with generics in attested examples.

The argument of Dancygier and Sweetser (1997) may be summarized as follows. First, it makes sense that *then* should be anomalous in referring back to a generic *if*-clause, since there is no unique temporal or circumstantial space for *then* to refer back to. The basic generalization noted by other analysts thus falls out naturally from our framework.

However, the data are more complex than this basic generalization: *then* is not equally problematic with all examples of the traditional generic category of conditionals. Adverbs such as *always* or *every time*, and generic conjunctions such as *whenever*, force a fully generic reading and are incompatible with *then*. (Although speaker judgments vary, we have not yet found a speaker who prefers [22] to [20], or who accepts *then* in [23].)

(19) If Mary bakes a cake, she gives a party.

(20) If Mary bakes a cake, then she gives a party.

(21) If Mary bakes a cake, she always gives a party.

(22) ?? If Mary bakes a cake, then she always gives a party.

(23) Every time/whenever Mary bakes a cake, (*then) she always gives a party.

We thus distinguish between true generic statements and conditionals, and what might more accurately be called *specific indefinite* statements and conditionals. The traditional range of "generic" statements and conditionals might be relabeled *indefinite*, on analogy with the terms for nominal reference. An indefinite mental space, like an indefinite NP, is not fully temporally grounded in reference to the base space. Unusual tense uses follow from this; for example, as Langacker (1987, 1991b) argues, the English "generic present" presents a situation as imperfective (temporally unbounded within the profiled structure), and including the present moment.

There are, however, degrees of temporal grounding. We claim that *then* occurs felicitously with specific indefinite conditionals, cases where the interpretation is basically, "Imagine any random instance of a mental space where P happens; then (i.e., in this instance, whichever one it is) Q happens." The problematic area is the true generics, the ones where the interpretation is something more like, "In *all* instances of mental spaces where P happens, (#then) Q happens." With spaces, as with nominals, anaphoric deictic reference to a recently mentioned specific indefinite entity is acceptable, while such reference to a true generic which refers to a class rather than to an individual is unacceptable.

Examples (24–25) are parallel cases with nominals. Recall, in perusing them, that deictic forms may be either emphatically contrastive in meaning ("*that*, not something else"), or non-emphatic. But both kinds of uses are uniquely referential and therefore require an appropriate referent.

(24) *A black cat* walked into the room. (So) *that* was the cat on Mary's screen-saver.

(25) *A black cat* is considered unlucky by many people. (**That* is the cat mentioned in all those folklore books.)

In attested conditionals, setting up an indefinite space does in fact allow subsequent reference to that space with *then*, while true generic space set-ups will not allow such reference. Starting with a clearly generic example, *When water reaches 100 degrees, it boils* definitely seems odd with *then*. But consider the following attested inferences, all of which seem to prompt the reader to imagine a specific mental space of a particular description, and follow conditional correlations in it. Although these spaces are clearly intended to be *representative*

of more general classes of situations, and although they are not fully definite in temporal reference, nonetheless they can be referred back to with *then*.

(26) If you are some peon who does not own a House, for example, a person who is coming in from a public terminal, then you materialize in a Port. (NS.SC.36)
[description of access to a virtual environment called The Street]

Example (26) invites the reader to imagine being a "peon," rather than an elite hacker who owns a virtual site on the Street; he is then informed what his access mechanism would be in that situation. The use of "generic" second-person forms here (rather than, e.g., *If a peon who does not own a House wants to get onto the Street*), and the qualification *for example*, both help make us feel we are building up some particular individual example space, involving a hypothetical "you" specifically. This does not mean that the space is definite, however: it is temporally unspecified, and clearly intended to express a situation exemplifying a general regularity.

(27) "My business runs on a shoestring; if something a little strange happens, then I have to accept it as an act of God." (SP.HT.186)

Example (27) is an even more obvious case of specific indefinite space building. The speaker is indeed making the claim that in general, as a small business owner, he has to accept the vagaries of events. However, he has a very specific case in mind, namely the "strange" situation which he is refusing to discuss with the investigator to whom he is speaking. And the real conveyed message is that he is unwilling to think or talk about that *specific* instance of "something a little strange" happening.

(28) He taught me that if you pick up a jellyfish with the palm of your hand, you don't get hurt – although then you had to be careful to scrub your hands, because if you rubbed your eyes or scratched your back the poison would lift off and sting like mad. (AG.TB.39)

Example (28) begins with an indefinite conditional, *if you pick up a jellyfish with the palm of your hand, you don't get hurt*. The "generic" second-person reference alone may not prevent a true generic interpretation of this conditional. However, it becomes clear as the text progresses that the speaker is recalling learning this general principle via specific real interactions with jellyfish. A second and a third indefinite conditional are then built on top of the first: *then* [i.e., "when/if you had picked up a jellyfish with the palm of your hand"], *you had to be careful to scrub your hands, because if you rubbed your eyes or scratched your back the poison would lift off and sting like mad*. Since we are presumably

intended to suppose that all three of these indefinite conditionals describe conditional correlations which hold at any time, it is particularly interesting to note the shift to the past tense at the break. All of a sudden the generalization is being described from the viewpoint of the past teaching situation, rather than from the narrator's present. The text goes on to describe jellyfish fights between the narrator and the teacher. Both of these facts suggest that the general correlations are now being accessed more via a specific remembered "example" space of experiencing the conditional relationship, rather than just as generic conditional relationships. And *then* makes its appearance just at the moment when this specific example space is referentially solidifying.

Specific indefiniteness does not imply that in examples like (28) the narrator is failing to express the generality of the relationship. On the contrary: one of the most effective ways for humans to learn general experiential correlations is via salient instances. You would probably only have to touch your eyes once with unwashed jellyfish-poisoned hands, to decide that such an action is generally a serious mistake. And if a friend said urgently, *No, DON'T touch your eyes till you've washed your hands; you'll burn them badly!*, you would surely take that both as a specific piece of advice about conditional results of possible present actions, and also as a general piece of information about conditional results of such actions.

Indefinite *if–then* conditionals are, however, quite rare, and the ones that do show up all seem to be specific rather than true generic indefinite conditionals. Our explanation is that unless you have really picked out a unique space as a referent, there is no appropriate mental-space antecedent for definite deictic reference with *then* to refer back to.

In temporal spaces as well as in conditional ones, *then* can refer back to specific but not to generic indefinite temporal spaces. This is illustrated by the case of *whenever*, which is ambiguous in much the same way as indefinite conditionals. Its basic reading may be generic, but it can mean either "every time" or "at some specific, but as yet unidentified time." Only the latter sense coexists comfortably with *then*, as seen below:

(29) Whenever you come, we'll go to the store.
  (a) "At whatever time you come this afternoon – we don't know yet what time it will be – we'll go to the store at that particular time."
  (b) "Every time you come, we'll go to the store."

(30) Whenever you come, (then) we'll go to the store (then).
  [*Then* forces a reading involving a specific but indefinite time.]

When, unlike *if* and *whenever*, seems to resist non-emphatic use with *then* in modern English; it seems acceptable when there is strong pragmatic emphasis

on the time, and correspondingly strong stress on *then* and *when*. (This is of course precisely when reiteration of information might be expected without sounding redundant.) Far more than *if* or *whenever*, *when* refers to a particular time and set of circumstances, pointing them out as extant – in short, it does the deictic work done by *then*, making a resumptive *then* unnecessary in the following clause.[3]

By taking seriously the deictic referential semantics of *then* in conditional as well as temporal constructions, we can thus motivate the distribution of *then* with respect to both generic conditionals and non-predictive conditionals. We would like to mention one further restriction on *then*. As Iatridou (1991, 1994) notes, *then* does not occur with *only if* (as in **Only if it's sunny, then I'll visit you*). *Only if* seems to duplicate the function of *then* because it focuses on one mental space, but we should also note, after Dancygier (1998), that *only-if* clauses, unlike standard predictive protases, normally *follow* their apodoses: it is grammatical to say *I'll visit you only if it's sunny* but not *Only if it's sunny I'll visit you*. (The inverted construction *Only if it is sunny will I visit you* is discussed in Chapter 8.) The function of *only if* seems to be something like the emphatic insistence on one (alternative) space P, as the sole compatible background to a "Q" clause which is already present in the discourse context.

We can therefore hypothesize that *only if* and *then* clash because they both signal that P will make Q happen but ∼P will not, but they do so in entirely different discourse frames. *Then* is anaphoric to the preceding protasis; *only if* normally limits a previously stated apodosis. It would thus be surprising if they could both be used in the same sentence.

Detailed analysis of *only if* is postponed to Chapter 8. We will now go on to what we regard as the most compelling case for our analysis of *then*, which also therefore provides support for a mental-space analysis of conditionals in general. This case is the interaction of *then* with concessive conditionals.

6.5 Concessive conditionals: prediction without specific alternatives

Concessive constructions (such as *Even if P, Q*) provide a convenient testing ground for the two claims made above, namely (i) that predictive interpretation is a licenser of *iff* inference, and (ii) that *then* marks deictic reference to a mental space as the (unique) "location" of Q. (This uniqueness, in conditional *if–then* constructions, is normally interpreted as due to natural temporal (and usually

[3] This is an observation about Modern English, not a broader claim about the impossibility of such resumptive deictic usage. Earlier forms of English welcomed coherent anaphoric and cataphoric use of deictic conjunction (see Traugott 1982 for discussion of the process of differentiation between antecedent and consequent clause markings).

causal) sequence.) As König (1986) states, concessives do not invite Geis and Zwicky's negative inference *If* $\sim P$, $\sim Q$. This is due to the scalar interpretation contributed by *even*, and the fact that the assumption in the scope of *even if* is presented as an extreme of that scale of conditions, where P holds for the scale of less extreme values.[4]

(31) "Now let me go," he cried at last [. . .] I will come and play for you tomorrow." "Well, you may go!" they said, "but remember that even if you break your promise you will not escape us." (Andrew Lang, *The Violet Fairy Book*, 8 U-Va Electronic Text Center)
[Three fairies who have been listening to a human boy's flute-playing are reluctant to let him go.]

In (31), if the human boy's failure to escape holds in an environment where he is willing to break his promise of returning, then it can be assumed to hold for the whole range of scenarios which are less likely to result in escape. What this amounts to is precisely the denial of our proposed normal "alternative" scenario for prediction: an *even if* concessive says "you might have thought that there were two scenarios, one where you keep your promise and come and play for us tomorrow, and one where you break your promise and escape – but that's not true; in fact, the most extreme case of the range of alternative values under consideration for P is still not extreme enough to set up an alternative scenario to Q. You'll be back to play for us no matter what." Given this reading, where prediction results not from positive set-up of alternative spaces, but from the negation of such a set-up, it is natural that the *iff* inference should not be licensed. After all, the whole purport of *even if* is that P is *not* the only circumstance wherein Q will be true.

Iatridou (1991, 1994) also observes that concessive conditionals (whether with *even if* or *if* alone) are not acceptable with *then* and offers an explanation based on the assumed negative presupposition of *then*, similar to the analysis proposed by König. However, our account offers an equally strong motivation for the inappropriateness of *then* with concessives. Concessive conditionals like (32), shown in Diagram 9, indeed suggest that the voters will not change their mind in the extreme case of the candidate having committed a crime:

[4] See Kay 1990 for a general treatment of *even* as scalar. For the purposes of relevance to the current discourse, scalar constructions set up relatively more extreme items on a pragmatic scale as more relevant, since information about items in less extreme locations on the scale can be inferred from information about items in more extreme locations. (See Fauconnier 1975a, b, Horn 1969, 1984 for treatments of scalar implicature; Fillmore, Kay and O'Connor 1988 examine another grammatical construction, *let alone*, whose interpretation involves pragmatic scales.)

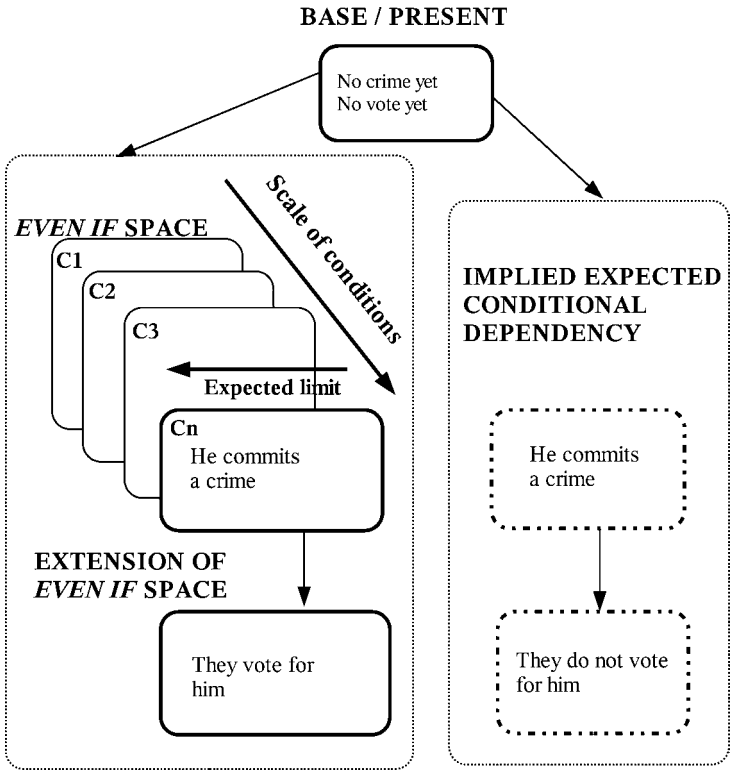

Diagram 9 *Example (32) Even if he commits a crime, they will vote for him.*

(32) Even if he commits a crime, they will vote for him.

But there is more to the interpretation of (32) than "they will vote for him if he commits a crime and also if he doesn't." First of all, as Dancygier points out (1988b, 1998) there is an implication of a "normal" causal chain, such that P ("his having committed a crime") will be expected to bring about "not Q" ("they will NOT vote for him," as in the implied set-up in Diagram 9). The "normal" predictive conditional might thus be set up (in this context) as something like "If someone commits a crime, people won't vote for him." On the basis of such a belief, concessives explicitly set up an abnormal, surprising relationship between P and Q. If P is portrayed as the high end of some pragmatic scale ("expected limit" in Diagram 9) of contexts in which Q would not be expected, P cannot be claimed to normally precede events such as Q. It is not asserted or implied that both P and ∼P *cause* Q; indeed, the speaker probably still believes

that the "normal" causation holds between P and ~Q. What (32) suggests is that the predicted vote follows from *other* causes, not mentioned in the sentence, and that therefore "normal" causal chains do not hold. So we cannot say that in (32) Q naturally follows from P, nor that Q follows uniquely in P (from among the mental spaces being considered); *then* is consequently inappropriate.

Concessive predictive conditionals are thus different from other predictive conditionals in that they allow for predictions in the relevant space "in spite of," rather than on the basis of, plausible causal connections. (As Verhagen [2000] astutely notes, of course, this depends on the validity of such normal causal connections in another contrasted space.). Nevertheless, the type of unexpected connection between P and Q that they provide is still sufficient to allow predictions: the function of (32), for example, might well be to help the hearer predict voting behavior. And concessives in fact refer directly to the setting up of alternative scenarios: their function is to deny the validity of such scenarios, and to make predictions independent of them. This, we suggest, explains why concessive conditionals like (32) are similar to other predictive conditionals.

Another confirmation of the fact that many concessive conditionals are predictive is the use of distanced verb forms, as in *Even if he committed a crime, they would vote for him*. Concessive conditionals are not only structuring mental spaces, but doing so predictively, making the simultaneous use of *if* and distanced verb forms appropriate to the function of concessivity. However, in denying the "alternative scenario" schema, and insisting that in fact all the scenarios are identical in allowing Q as an outcome, a concessive precisely also denies the possibility of constructing a unique referent mental space P wherein Q holds. And, as noted, the deictic semantics of *then* are inappropriate to such a meaning.[5]

We should note that the judgment of some causal link between a P and a Q as "unnatural" is essentially pragmatic, because whether the particular causal chain is natural or not is a matter of the speaker's beliefs (see Haiman 1986, Sweetser 1990). Therefore a concessive interpretation is also possible in conditionals which do not use *even*. This seems to be the case for (33) and (34):

(33) If Bugs was taken aback he didn't show it – then again, he wouldn't have. (AG.TB199)

[5] Fauconnier (1996) argues that *analogical counterfactuals* serve the specific function, not of actively building spaces, but of preventing certain kinds of mental spaces from being built in discourse. For example, he cites a line from film, where a character saying *I don't have a sister, but if I did, she wouldn't be a hooker* is using the counterfactual to forestall another character's attempt to build a mental space wherein he is forced to sympathize with a murdered prostitute because *What if it were your sister?*

(34) It would be a problem, but why would Jed need a partner? If he had ten or fifty partners, he could not stop them. There is no difference. (AG.TB.218)
[A lookout man for a beach community has asked for a partner; the claim is that no number of partners could successfully make the community secure from neighboring organized drug farmers.]

Both sentences use *if*, but the most natural interpretation of the conditional connection is concessive because of the implied expectations about natural causal links, and because of the scalarity involved. What (33) seems to be saying is that being taken aback is a feeling that people show somehow (whether voluntarily or not) and thus it constitutes a high end of some pragmatic scale of contexts in which Bugs' show of indifference would not be expected.

In (34), the speaker's reasoning clearly depends on the general idea of a scale of increasing number of lookouts or guards, linked to a scale of increasing security. However, the assumed high end of this scale is clearly insufficient when unarmed young lookouts have to deal with seasoned criminals carrying machine guns. What is especially interesting in (34) is the fact that it is quite difficult to establish what the assumed end of the scale is. The speaker tentatively starts with "ten," then raises it to "fifty," but he intends to say that there is no such limit, because no number of lookouts would be able to stop the drug farmers. The context in which (34) is said is thus open to concessive readings, though the word *even* itself is not used.

In fact, (32) above could also be interpreted concessively with *if* alone. Under the "natural" interpretation voting for criminals is unlikely, and a sentence like *If he commits a crime, they will vote for him*, with appropriate intonation, will be interpreted concessively. But if the vote is taking place in a criminal organization in which you can be elected only if you have committed a crime yourself, the sentence is a straightforward prediction (and allows *then*).

Let us further note that *if* may also be used concessively in a construction where the *if*-clause is nonfinite or verbless, and inserted clause-medially into Q, in the manner similar to metalinguistic clauses described in Chapter 5.[6] Examples (35)–(36) (from the same source) exemplify the use of such constructions. The most common usage is to juxtapose two scalar adjectives in a way which shows that the location of an object in question along one scale of values coincides with its unexpected position along another scale of values. In (35), the Met's show is compared with another one: they appear to be equally problematic, but (unexpectedly again) one is less overt in its political message. Similarly

[6] The difference and similarities between clause-medial metalinguistic and concessive negative clauses is discussed extensively in Dancygier (1998).

in (36), the "symptoms" are compared along two scales: being frightening and being hilarious, even though frightening things are not typically perceived as hilarious at the same time.

(35) Equally problematic, if less overtly political, is the Metropolitan Museum's "Art and the Empire City: New York, 1825–1861 . . . "

(36) It is hard to decide which catalog presents a more frightening, if hilarious, set of symptoms.
(Both examples from "Memo to Art Museums: Don't Give Up on Art" by Roberta Smith, *New York Times*, Dec. 3, 2000; continuation on 2–35 from 2–1.)

Since, as we have noted, concessive meanings evoke some expected causal links, the juxtapostion of adjectives with the concessive *if* conveys the additional idea that the two scales do not necessarily apply independently of each other. Being less political could be expected to make the show less problematic, but didn't; frightening things should make one less prone to laughter, but in the case of (36) the expectation is not fulfilled. As we can see, scalarity and unexpected connection are at the root of the emerging concessive meanings in these constructions as well.

We can thus claim that in a concessive conditional, whether with *even if* or just *if*, the mental-space construction involves not just one alternative space, but a pragmatic scale of spaces, from spaces most likely to be a causal background for Q to spaces which are much less likely to give rise to Q. How is this accomplished? The protasis of such a conditional sets up a space in which the apodosis is true, thereby licensing the possibility of predicting Q from P. But there is no natural causal relation that would license that prediction; indeed, the prediction is licensed despite the lack of such a connection. This gives rise to an inference that Q will occur in any space *more* likely to result in Q than P is. Items close to the end of a pragmatic scale allow stronger inferences than ones in the middle of the scale, so we can assume that any voter whose loyalty is unaffected by the candidate's crime will surely vote for the candidate under more auspicious circumstances. So the range of spaces yielding a prediction of Q has to be extended to cover all the possibilities along the scale from the ones most readily causally linked to Q, to the unlikely P.

Concessive meaning consists (see Kay 1990) in the construction of such a scale of mental spaces, in all of which the prediction of Q is taken as valid.[7]

[7] Minimally, the point of concessive *if* may simply be contrastive, where there are only two elements involved. Examples such as *As he got older, he got wiser, if more wrinkled* focus on the apparent contrast between P and Q – in this case, their differential desirability. It is an open question to

Unique reference for *then*, as the particular space P within which Q holds, is not available in such a context; and natural causal sequence, one important aspect of the interpretation of *then*, is explicitly denied. The mental-space structure built up by concessive conditionality is thus naturally incompatible with the semantics of *then*. We do not know of another framework where the incompatibility between concessive conditionality and *then* falls out from independently motivated analyses of the two constructions in this way.

6.6 *Even if* and *then*: the exceptions that prove the rule

The outline of this chapter's preceding argument appeared in Dancygier and Sweetser (1997). We saw no reason at that time to doubt the full generality of the observed constraint that conditional *then* does not occur with concessive conditionals. Not only was this generalization accepted in the scholarly literature, but also, among the thousands of English conditional examples we had scanned, we had never run into a single case of *even if* paired with *then*.

Since 1997, we have nonetheless found attested clear examples of a concessive conditional form used with *then* marking the apodosis. In this section, we shall present analyses of these examples. It might be more fun if we could overturn a widely accepted generalization; but in fact these do not turn out to be real counterexamples to the underlying generalization about the relation between concessive conditional meaning and the semantics of *then*. Rather, they are cases where an unusual combination of contextually built mental-space structure allows *then* to get its appropriate reference from a source other than the preceding *even if* clause.

It is presumably the rarity of such a combination of factors which accounts for the very real dearth of *even if–then* examples in texts; there is a real reason why researchers have not noticed attestations of this constructional combination before. And it would have been difficult to make them up, because the researchers would have to have built up the relevant complex context, in order to find the examples acceptable.

What makes these examples so fascinating is that they clearly show that a formal constraint on *even if* and *then*, even accompanied by specifications of structural syntactic relations, would not suffice to account for the data. The problem is not with the co-occurrence of forms within a particular structure: the problem is the potential incoherence of the mental-space structures built up

what extent this can be seen as an independent contrastive meaning, as opposed to a reduced usage of the scalar *even*.

by conditionals of this kind. If that incoherence can be circumvented, allowing a mental-space structure wherein the contributions of scalar *even* and definite deictic *then* do not conflict, then all is well.

As a final introductory comment, it must be said that in context, these "problematic" examples do not seem at all odd or problematic. We experience no clash at all between *even* and *then*.

Our first example is from Anne Tyler's *The Accidental Tourist*. The main character, Macon, has become involved with Muriel during a period of separation from his wife, Sarah. At this point, late in the novel, he seems likely to return to his marriage. He is talking with Sarah, who has just said that she really belongs with him. He considers this in the light of another recent conversation with Muriel.

(37) You mean to tell me you can just use a person up and then move on? Muriel had asked. Evidently so, was the answer. For even if he had stayed with Muriel, then wouldn't Sarah have been left behind? (AT.AT.310)

Example (37) appears to be a questioned form of the distanced concessive conditional *Even if he had stayed with Muriel, then Sarah would have been left behind*. Macon asks himself a rhetorical question, acknowledging the truth of this conditional.

Then is appropriate in (37) because in fact Macon is only considering two options: staying with Muriel or returning to his marriage with Sarah. There is no wider range of spaces, only two precise alternatives; and Q (Sarah being "left behind") holds only in the space defined by alternative P.

The question is how *even* can be appropriate in the same situation; the answer, of course, is that in this case we do have a pragmatic scale, but it consists of exactly those two options (see Diagram 10). As a first pass, we might guess that the scale is one of unlikelihood, or deviation from expectation; since Macon currently seems set to reunite with Sarah, the high-end-of-scale alternative is staying with Muriel. And for the same reasons, staying with Muriel is a space marked for negative epistemic stance; hence the distanced verb forms in *had stayed, would have been left. Even*, we have said, marks the fact that the consequent clause holds both in more likely spaces, and in the space described by the *even-if* clause.

The immediate problem with this analysis is that Q (Sarah being left behind) does not in fact hold across the small spectrum of mental spaces being examined. Indeed, in the most plausible space currently being imagined, it is Muriel who will be abandoned, not Sarah.

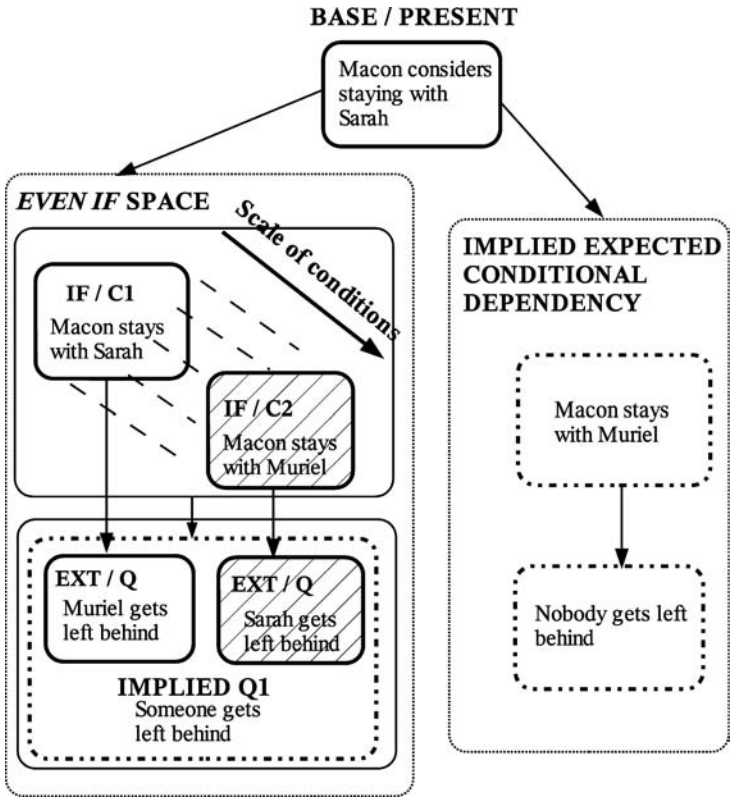

Diagram 10 *Example (37) Even if he had stayed with Muriel, then Sarah would have been left behind.*

A look at the surrounding discourse, however, suggests a different solution. We first note that the topic of Macon's thought train, and of his remembered conversation with Muriel, is not formulated only in terms of his specific difficulty in choosing between Sarah and Muriel, but also in terms of the broader question of whether it's acceptable to "use a person up and then move on," to "leave someone behind." Following (37), Macon comments that it seems inevitable that people get "left behind" in life, and Sarah expresses surprise at his not finding this obvious. Macon is a character who generally shuns awareness of emotions and human relationships; the novel seems to invite the reader to savor Macon's unreflective presupposition (now finally challenged) that there is some tidy course of action which will not result in emotional damage or turmoil. We might, then, say that the common factor which holds across our rather

small "scale" of mental spaces is that in all (i.e., both) cases, someone "gets left behind."

The scalar parameter involved in (37), on this account, is not one of likelihood, but something like a scale of "tending towards or against the outcome of someone being left behind." Muriel expressed indignation at the idea that Macon could use and abandon someone (meaning her). Macon, now considering his possible directions of action and outcomes, imagines trying not to be the kind of person who uses and abandons people – e.g., by being loyal to Muriel. But ironically, not abandoning Muriel would mean abandoning Sarah, and vice versa. So "someone being left behind" happens both in the space where one might expect it to happen (where no effort has been made to avoid it) and also in the space where one has tried to avoid it (which makes it more unexpected). This is represented in Diagram 10 by showing that each of the two options on the scale brings a different specific result (a different woman is left behind), but they both have the same implied result. *Even* marks the specific *if*-clause, since P is a space which (on someone's presumed pragmatic scale) was thought to be (as part of the base space assumptions) beyond some limit of incompatibility with "someone getting left behind," and yet Q still holds in P as well as in more obviously compatible spaces.

This analysis seems to us well motivated, and it renders the treatment of *then* unproblematic. *Then* appears to refer (in canonical fashion) to P, Macon staying with Muriel. The scope of *then* is equally canonically the content of Q – that is, what holds uniquely "then" (and not in the alternative space) is Sarah being left. But the focus of *even*, the profiled parameter which holds throughout the scale of spaces including P, is not identical to Q. It is not Sarah's getting left behind, but someone's getting left behind, which is a constant across spaces.

It is this disjunction between the scope of *then* and the focus of *even* which allows (37) to combine the two forms in a single conditional. *Then* is appropriate because the space wherein Macon stays with Muriel is indeed the unique space, within the relevant range, wherein Sarah would be left behind. *Even* is appropriate because there is a pragmatic scale of spaces, on which the P space is high: staying with Muriel would be an attempt to avoid "leaving someone behind," and therefore should count as a space containing some factors adverse to this undesirable eventuality. Further, the undesirable eventuality ("leaving someone behind") holds regardless of the adverse circumstances – although the full contents of the *then*-clause do *not* hold regardless of circumstances (if they did, *then* would not be appropriate).

In previously considered (and unacceptable) examples of *even if*, the content of the consequent clause was thought of as holding across the relevant range of mental spaces. But here, although the space set up by the *if*-clause in (37), and referred back to by the *then*-clause seems to be a space in which the entire *then*-clause holds, the focus of *even* appears to be a related proposition relevant to the discourse.

In confirmation of the rarity of such examples, a British National Corpus search turned up no instances of *even if* with conditional *then*, while only a single example was found in the University of Virginia's large publicly accessible online library database.[8] However, a Google search brought a number of clear examples to light. And indeed, both the U-Va text example and the Google examples follow the same pattern observed in (37). The scope of *then* (the situation which holds precisely if P) is the expressed Q, while the situation which holds over a range of spaces including P is an inferrable Q′. Here are three typical Google examples.

(38) I am not persuaded that pornography is harmful, but, even if I were, then I would conclude that less harm would be done by its being legal and open than by its repression and criminalization. (http://www.cultsock.ndirect.co.uk/MUHome/cshtml/media/porno6.html)
[P = the speaker being persuaded that pornography is harmful; Q = the speaker concluding that it is less harmful when legal than when criminal; Q′ (which holds whether or not P holds) = the speaker doesn't think pornography should be criminalized.]

(39) I don't feel like I can sit down and relax. Even if I do, then in the back of my mind I know I still have to do my work. (http://www.collegian.washcoll.edu/nov01/ent.html)
[P = the writer tries to relax; Q = he has an unpleasant back-of-the-mind sensation of nagging work commitments (presumably this is not his experience while working). In all situations including P (trying to relax), Q′ holds: the writer always has work on his mind.]

(40) Brazil have no injuries or suspensions to trouble Scolari and much depends on the free role given to Ronaldinho. Hamann could be detailed to block his runs and touches of the ball which could isolate Ronaldo in attack. But even if that happens then Carlos, Cafu and Rivaldo can all raid to possibly win the game. At that point the game's true star may emerge. (http://www.wldcup/worldcup2002/news/2002Jun/2002629_14191_brazil/germany.html)

[8] Thanks to Andrew Garrett and to Karen Sullivan for helping us find these examples.

> [Ronaldo, Ronaldinho, Carlos, Rivaldo, and Cafu were Brazilian soccer players in the 2002 World Cup team, coached by Scolari; Hamann was an opposing German team member.]
> [P = the German players effectively counteract Brazilian star Ronaldinho. In case P holds, then Q = the next tier of Brazilian players are the key possible forces in winning for Brazil. Q′ = Brazil has a good chance of winning against the German team, no matter what. Presumably if the Germans don't block Ronaldo, Brazil will still win but the second-tier Brazilian players won't get their chance to shine.]

Our hypothesis, then, is that *even* and *then* can coexist in a conditional construction only if there are two distinct propositions, the directly expressed Q and some Q′ which is contextually related to Q, which can serve as the scope of *then* and the focus of *even*. Conditionals with this contrast between Q and Q′ are quite ordinary; in a moment we will provide examples. The extreme rarity of the conjunction of *even if* and *then* must therefore stem from the fact that it's rare for this Q/Q′ contrast to coexist with an alternative-based predictive conditional structure and deictic reference to the chosen alternative space P.

We claim that a divergence between the expressed Q and a conveyed Q′ is not in itself uncommon in conditionals, including concessive ones. It is easy to construct examples such as (41), which might be offered as a reason why we couldn't go hiking on a rainy day (Q′), "even" if I had rain gear (P). The common factor across spaces is that we can't hike because someone will not have rain protection.

(41) Even if I had rain gear with me, Mary would get wet in that light sweater.

In (41), it would seem odd to mark the consequent clause with *then*. This is because we lack the special mental-space set-up of (37), involving precisely two alternatives which form a pragmatic scale. This is true whether or not the consequent clause precisely expresses the conveyed focus of *even*: (42) still seems inappropriate with *even*.

(42) Even if I had rain gear with me (*then) we couldn't go hiking today.

Many conditionals allow such a disjunction between the Q of the conditional relationship and the expressed Q-clause. Example (41) can be read as an epistemic conditional involving reasoning processes rhetorically displayed to the interlocutor: the fact that I have rain gear is a factor tending to support the conclusion that we could go hiking, while Mary's lack of it is a factor supporting the opposite conclusion.[9] It can also be understood as a predictive conditional

[9] See Ducrot 1972 on rhetorical uses of *but* and causal conjunction.

in which P allows the speaker to predict herself remaining dry, but not everybody remaining dry, which is the only satisfactory solution. Example (43), for comparison, is a speech-act conditional illustrating an analogous disjunction:

(43) Even if Chris is set on watching football, why do we have to watch it with him?
[The question Q conveys the indirectly expressed suggestion Q′ (let's do something else); the social pressure mentioned in P might seem adverse to Q′, and one might guess that the speaker would also suggest Q′ in less adverse environments.]

Then is still completely unacceptable in (43), for the reasons cited above.

Attested examples of a Q-Q′ divergence are not hard to find, although in the typical cases both Q′ and Q′ hold over the scale defined by *even if P*.

(44) "Even if the food wasn't horrible, the dining hall is so covered with roaches you have to keep brushing them off your legs while you're at the table . . ." (SP.HT.361)
[A jailed detective discusses getting bailed out, agreeing with her lawyer about reasons why no sane person would want to remain in prison.]

In (44), Q appears to be presented unconditionally; this is particularly striking, since the P-clause is actually negative-stance. We might, however, adduce a negative-stance Q′ which has more of a conditional relationship to P – something like "Even if the food wasn't horrible, it would be impossible to eat decently here." The contrast between the formal marking of stance in P and Q here constitutes a prompt to the reader to construct such a Q′. A yet broader conclusion is something like "I would still hate this place and want to get out." This conclusion is also stable over the scale of spaces.

Returning to (37), we might thus construe it as a part of Macon's reasoning processes about his relationships. We could gloss it as something like "Even if he thought about the option of staying with Muriel, he recognized that in that case Sarah would be left behind (and hence, that he'd be leaving someone behind in both spaces)."

The reason for the rarity of examples like (37), we claim, is that in order to make *even if* compatible with *then* in a conditional, the following complex set of criteria must hold: (i) it must be a conditional which shows non-identity between the expressed Q-clause and the conveyed focus of *even*; (ii) further, the expressed Q-clause must in fact be a conveyed consequent of the conditional relationship – and the conveyed focus of *even* must *also* be a conveyed consequent of the conditional relationship. This may require that the one entail the other; in (37), leaving Sarah behind entails leaving someone behind; (iii) there must be an

appropriate pragmatic scale, on which P constitutes a high-end-of-scale adverse condition which might be expected to prevent the occurrence of the conveyed focus of *even*; (iv) the pragmatic scale must nonetheless clearly consist of only two alternatives, so that *then* can have appropriate definite reference – which will be reference to the expressed contents of the P-clause; (v) Q must be interpretable as what holds within the scope of *then*, and Q′ as what holds across the scale of spaces set up by *even*.

So overall, it seems correct to say that *even if* and *then* are normally incompatible in conditional constructions, and that this can be explained by their compositional semantic contribution to those constructions. Their compatibility in an exceptional case such as (37) is, however, also predictable from the semantic analyses which we have proposed in order to account for their incompatibility in most contexts, once we have noticed the possibility for divergence between expressed Q and conveyed Q′. But in order to predict this interaction, we must be willing to examine the ways in which pragmatically accessible information forms part of the basic compositional processes of constructing an interpretation from the meanings of the forms presented in an utterance.

6.7 A final note on *even then*

Even then is not restricted in the same way that *even if . . . then* is. The placement of *even* as a direct qualifier on *then* seems to make the two compatible. Why should this be so? One answer could be that in such cases we have already built a single, definitely referential space to which we are referring back; this was done before the scale evoked by *even* was introduced into the interpretation.[10] Although we are now introducing a scale of mental spaces into the discourse, and placing our *then* space in a high-end-of-scale position, the space's definite reference was established ahead of time, independently of the scale and its multiplicity of spaces.

Example (45) illustrates the interaction of some of these parameters.

(45) "I'm guessing the hospital said she needed expensive surgery to fix her up and even then she might well die . . ." (SP.HT.428)

First of all, *then* does not refer back to the hospital's saying something, or even to the patient needing surgery, but rather to the possible situation where she would have *received* the needed surgery. Indeed, one might expect *she needed expensive surgery* to be followed instead by *so she might well die*. But the interpretation is clearly that she needed expensive surgery, and even if she got

[10] See Smith 2001 on cataphoric reference.

it, she might well die anyway. A mental space for definite reference with *then* can be set up very indirectly. In this case, the setting up of the "need" space allows us to implicitly set up a possible unique space wherein the need was met, which is subsequently referentially accessible as *then*. The contrast between the ease of this reference, and the impossibility of referring back to a space set up specifically with *even if* (where the scope of the scale is set up before the *if*) dramatically demonstrates the effects of the chronology of space construction.

Example (45) is in no way exceptional in its use of *then*: in general, the space referred back to by *then* need not have been established by an *if*-clause. In fact, the space need not have been set up by any explicit space-builder. Spaces may of course be set up in a variety of more and less direct ways, by context as well as by explicit use of forms. Consider (46):

(46) "Do you think that the manner in which you came to possess these swords was honorable?" the businessman says.
"If I did not, I would long since have returned them," Hiro says.
"*Then* you will not object to losing them in the same fashion," the businessman says. (NS.SC.86)
[a challenge to a duel in a virtual environment]

In (46), the proposition *Hiro thinks he came to possess the swords honorably* is never expressed in positive form. However, it is questioned by the businessman, and indirectly confirmed by Hiro. Although it is the content of an indirectly constructed belief space, it is apparently the referent of *then*.

Similarly, in (47), *then* appears to refer to the situation where food and clothes for three days have been collected and an expedition to hunt for the beach has been undertaken. As with the mention of the need for surgery in (45), this space has been built up only by mentioning the need for food and clothing packing to happen; no explicit mention of future action on this need has been made, although one might infer the likelihood of such action from the need.

(47) "We need some food, some clothes, only for three days. *Then* if we do not find the beach, we swim back and wait for the boat." (AG.TB.70)

The general observation is that, like other definite pronominal elements, *then* can refer to any entity of the right kind which is accessible and uniquely identifiable in context. *If* is only one of the mechanisms for building such an entity; *even* is a mechanism for setting up scales of entities, which can be compositionally combined with *if* and *then*. It makes a difference at what point the scale is set up, since that may determine whether there is a unique referent available to be pointed to by *then. Even if . . . then* would thus not be expected to behave exactly like (*if . . .*) *even then*.

6.8 Conclusions

We have presented a picture of *if–then* conditionals wherein the different parts of the construction and of the context make compositionally distinct contributions to interpretation. *If* sets up a mental space wherein the apodosis' content (or speech act, or conclusion) is taken as existing. *Then* refers uniquely and anaphorically to the mental-space set-up in the protasis, and may contextually have a contrastive deictic function which requires some other mental space to be postulated as the contrasted entity. Verb forms are equally relevant in the mental-space building: the use of the simple present tense in apodosis as well as protasis indicates the indefinite rather than definite nature of the space constructed and may thus remove the possibility of unique anaphoric reference to that space; "distanced" or "subjunctive" verb forms mark, instead, a space with which the speaker does not identify (such as a "counterfactual" space). And the demands of relevance allow a hearer to conventionally give a predictive interpretation to a conditional construction, which requires the setting up of alternative spaces for the purpose of prediction. This in turn gives rise to the Geis and Zwicky *iff* implicature.

Classic issues such as the order of P and Q are related to the presence or absence of *then*: it has long been noticed that *then* occurs in Q only in the default (iconic) *P Q* order, not in *Q P* order.[11] The same is true in temporal clauses: *When P, then Q* is acceptable, but not *Then Q, when P*. This falls out of the anaphoric nature of *then*, which is not interpretable without preceding establishment of a referent mental space.

To some extent, there is overlap between generalizations about these formal and functional aspects of conditionals. For many salient cases, such as the (predictive) central textbook examples of conditionality, the same alternative-space structure which licenses the *iff* inference also licenses the use of contrastively referential *then* to refer to the space actually mentioned (as opposed to the alternative one). But since *then* is not solely contrastive in reference, its use extends to a wider class of conditionals than those where we draw an *iff* implicature. Since it is, however, *unique* in reference, it fails to refer successfully in generic or concessive conditionals, where there is no unique space set-up, and it is inappropriately direct in certain speech-act conditionals. And since generic conditionals may evoke alternatives (albeit not unique ones), they are consistent with predictive-alternative structures such as distanced verb forms,

[11] It is acceptable to say *Then I'll do it, if you come to my office* only if there is some already established reference to your coming to my office, and *then* is being used to refer to that, not to the following clause.

and may even give rise to generically structured *iff* inferences, although they do not co-occur with *then*.

It is not by chance that *then* frequently correlates with *iff* and related inferences; its referential semantics meshes well in most cases with certain other structures which strongly evoke such inferences. The semantically similar German *dann*, used with a function somewhat parallel to that of *then* in conditional apodoses, appears interestingly to show similar restrictions; at any rate, it is used in content predictive conditionals but cannot be used in speech-act conditionals.[12] (As we noted in the last chapter, further reinforcement for such a distinction in German comes from word order data.) Nor is it by chance that non-concessive content-level conditionals give rise to *iff* implicatures, since their salient predictive function normally requires such implicatures to ensure relevance of the prediction. Both of the competing logical analyses of conditionals are thus motivated: the general conditional construction per se does not conventionally carry an *iff* implicature, but the more specific predictive conditional construction does. Looking at a broader range of conditional constructions allows us to pick out the specific contributions of individual components to the interpretations of larger conditional constructions. It thus allows us also to differentiate between a form's compatibility with some functional aspect of conditionals, and its conventional ability to signify that function.

A central generalization from this argument is that inferred and indirectly built aspects of mental-space structures are crucial to the interpretation of explicitly expressed linguistic forms. The referent of *then* or the focus of *even* may not be directly expressed, but the text is fully interpretable so long as the hearer or reader can access appropriate content. An apparent semantic "clash" between the compositional semantic demands of the constructional forms *even if* and *then* can be resolved by material not present in the compositional semantics at all. Pragmatically accessible or indirectly conveyed content seems to be necessary to the basic decision about whether or not the compositional semantics is coherent. Such dependence has previously been noted: Lakoff (1974) observed that *Please* can co-occur with statements precisely if they indirectly convey requests (e.g., *Please! It's after midnight* as a request to turn down music volume). It seems time for us to apply the tools of modern cognitive linguistics to the analysis of these relationships.

[12] See Köpcke and Panther 1989.

7 *Clause order and space building: "if," "because," "unless," and "except if"*

> "I couldn't possibly guarantee your safety, or the safety of the school. Unless . . ."
> "Unless what?" Morrell said sharply when I didn't finish the sentence.
> "Unless I get Baladine to come to me first." (SP.HT.454)

7.1 Introduction

We have seen that conditionals of even the most standard form are capable of setting up a varied array of mental spaces, and carrying out a broad range of communicative functions. *If* can introduce patterns of reasoning at different levels (e.g., predictive, epistemic, or metalinguistic); it can build epistemically distanced or non-distanced or neutral spaces; and those spaces can then be referred to deictically. A broad range of verb forms can be used, giving more specific meanings to conditional space structures. However, there are further features of specific set-up that need to be explored. Primary among these is the interaction between clause order and conditional interpretation, which is one of the central themes of this chapter.

The rest of this book extends our analysis of conditional constructions in two directions. First, we will complete our survey of the effects of linguistic form on conditional space building. And second, we will examine how dedicated "conditional" constructions (such as *if*-conditionals) differ from, and how they are similar to, other constructions which can express conditionality. We are here equally interested in overarching generalizations about formal expressions of conditionality, and in revealing the motivations for functional overlap and non-overlap between forms which share some functional territory.

We will begin this chapter with a discussion of the order of clauses in conditional constructions and its correlation with function. Clause order is a domain where there are significant generalizations beyond conditional constructions; functional parameters such as topicality and space building, as well as meaning parameters such as causality, are relevant throughout the grammar. We shall

therefore go on to compare the space-building strategies involved in *because* and *unless* constructions with those involved in *if*-conditionals. *Unless* has proven particularly problematic for analysts; we here present a new analysis (going beyond Dancygier 2002) which takes into account the interaction between information structure, conditional semantics, exceptiveness, and space-embedding.

7.2 *If*-constructions: variation in intonation and order of clauses

The first question we might ask is how different orderings of the protasis and apodosis interact with space building. This is a very general issue; not only *if*-conditionals, but most of the broader class of constructions with conditional uses, involve conventional ordering of the expressions of antecedent and consequent. There is something intuitively natural about the idea that the space-builder clause should precede the contents which elaborate the space; this is at least quite consistent with the observed tendency for *if*-clauses to precede their main clauses.[1]

However, the communication of Q may sometimes precede the introduction of P. Doesn't this violate some basic understanding of how space structuring proceeds? The answer is that perhaps it might, if the cognitive processing of mental spaces were done in a vacuum; but in fact, context may already have done a great deal of a speaker's space building for her. In this case an explicit space-building clause may be needed only to confirm or clarify an already-constructed mental space. The allowable variation between *If P*, *Q* and *Q*, *if P* in itself shows the complexity of the mapping between clause order and information structure in English conditional constructions. Conditional protases have been claimed to be topics (Haiman 1978), and in fact they often are topical, but this does not mean that all Ps are topics and all Qs are comments.

As this chapter and following ones will show, the order in which spaces are set up may be dictated by factors more general or more specific than the conditional reasoning itself. Information structure is only one of these factors. It is true that in the case of coordinate constructions with *and* and *or*, or bare-conjunct constructions (e.g., *nothing ventured, nothing gained*), conditional interpretations rely on general iconic principles (the order of clauses matches the order of represented events) and models of the relation between sequence and causality (*post hoc ergo propter hoc*).[2] Chapter 9 will focus on conditional uses of coordinate constructions. On the other hand, conditional conjunctions such as *unless*

[1] See Haiman 1978, 1980, 1986; also Ford 1993 on *because* vs. *if*.
[2] See Haiman 1980, 1986; Sweetser 1990; Dancygier 1998.

(to be discussed here) impose very specific requirements on the type and order of the spaces being set up. We will thus be returning to the comparison of different constructional space-building strategies throughout the chapters to come. But first, let us look more closely at the mappings between clause order and function in *if*-conditionals.

In *if*-conditionals, we may note that all four of the following organizations of P and Q are possible:

(1) if P, Q: If the home computer breaks down, I'll work in my office.

(2) Q, if P: I'll work in my office, if the home computer breaks down.

(3) Q if P: I'll work in my office if the home computer breaks down.

(4) If P Q: If the home computer breaks down I'll work in my office.

For the moment, we will set aside a fifth option, namely placement of the *if*-clause inside the main clause (see Chapters 4 and 5).

We intend to contrast these four formal patterns, even though we recognize that in our predominantly written examples clause order is directly accessible while intonation is not. Clause order is by far the more important of the two parameters for our general analysis. However, there are also evident correlations between functional parameters and the presence or absence of commas between the clauses of conditionals. While it would be wrong to assume that the use of commas directly reflects spoken intonation patterns, it is useful to observe correlations within the written data. Other work on spoken language intonation (e.g., Chafe 1984, Bolinger 1984)[3] has confirmed parallels in predication structure between particular spoken intonation patterns and the use or absence of commas between main and subordinate clauses. We will therefore speak of "comma intonation" and "commaless" intonation patterns, keeping in mind that written comma usage corresponds only roughly to spoken pauses, or placement of falling intonation. Commaless intonation has been observed to correlate with independent assertion of the two conjoined clauses, and comma intonation to correlate with tight conceptual subordination relations.[4] This contrast can contribute to specific interpretations of conditional constructions.

Example (1) follows the intuitively appropriate strategy of first building a space defined by P, then adding the assertion of Q specifically to the structure

[3] See also Ford 1993, Ford and Thompson 1986.

[4] Interestingly, although it is hard to fully assess the parallels from the examples in the literature, a parallel functional distinction appears to hold between the German integrative and non-integrative word orders discussed in Chapter 5.

of that space. Note that it could still be the case that the relevant space is in some sense "pre-built" by the discourse; (1) would be an appropriate answer to "What will you do if your home computer breaks down?"

Sentence (2) instead puts forward an assertion Q, without first specifying in what space Q applies. Unsurprisingly, this seems to require prior contextual justification for the introduction of Q at this point. The Q-clause is then followed (after a comma/pause) by P, which either further restricts the context in which the assertion of Q is valid, or justifies the communication of Q as appropriate (this may involve conditions on speech acts and metalinguistic conditions). In other words, a very common use for the pattern exemplified in (2) is to use P as an explanation of an added background for communicating Q, rather than to establish a content-level relationship between the two clauses.

The contrast between (2) and (3) exemplifies a more general contrast between conjuncts juxtaposed with and without comma intonation. Example (3) would be an answer to "Would you ever work at your office?" or "When will you work at your office?," rather than to "What will you do if the home computer breaks down?" Its major assertion is the identity of the conditional relation under which the working in the office would happen; the main clause content is already "on the floor." In mental space terms, (3) begins by expressing a prediction Q but uses an intonation pattern which makes it clear that Q is not being independently asserted and is therefore unlikely to belong to the base space. The focal stress marking new information, and the final intonation fall marking the end of an assertion, indicate that we are identifying the space P within which Q is to be placed. Q is "old information," while its space setting is not.

The less common pattern (4) is also exemplified in our data; given the preceding discussion, it should involve canonical set-up, specifiying the space before identifying its contents. It should also involve less independent assertion of the conjuncts, the primary assertion being their conditional relationship. However, given that both (1) and (4) necessarily involve setting up P before Q, we must assume that Q is not set up independently of P. We will return to this issue.

Dancygier (1990, 1998) observes that patterns (1)–(4) are not only contextualized differently but also contrast in their degrees of availability for predictive as well as non-predictive interpretations. While (1), being the most common sequence, is used to represent content (predictive), epistemic, or speech-act space set-ups, (2) is in fact preferred with speech-act and metalinguistic uses, as conditions on speech acts or comments on linguistic appropriateness are usually added to clauses which already perform the acts or use the expressions.

Examples (3) and (4), on the other hand, are essentially restricted to predictive, causal meanings. Additionally, there are many cases (especially among metalinguistic constructions) of *if*-clauses used sentence-medially (as in *Your pooch, if that's what you want to call him, just ate my steak*). These can be considered variants of the "comma" pattern represented by (2), because of the relative discourse independence of P. Sentence-medial placement is a mechanism for marking the P-clause comment as pertinent to a specific part of the Q-clause.

Examples (5) and (6) exemplify the contrast between patterns (1) and (4). In (5), the speaker builds a new mental space intended, by analogy, to show why he should be able to prevent his reality-space employees from using their knowledge and skills outside work. The "car factory" space thus has to be built from scratch and then used to make a point about the base space of the conversation. Example (6), on the other hand, constructs a prediction based on the space set up earlier by the interlocutor. Muriel's suggestion to let the child watch, rather than fix the faucet with an adult's help, is picked up to show that the situation predictable from it is undesirable, as it prevents the child from learning a new skill. The same clause-order pattern is used, but (5) actively builds the P-space, as well as predicting Q within it; hence the unbound comma pattern is appropriate, giving the two clauses somewhat more independence. Example (6), on the other hand, evokes only the space built in the immediately preceding utterance as background to the prediction of Q; since the *if*-clause material is not new – only the conditional relationship to P is new – the bound pattern is appropriate.

(5) "If I was running a car factory, I wouldn't let the workers drive the cars home or borrow tools. But that's what I do at five o'clock each day . . . when my hackers go home from work." (NS.SC.116)

(6) "Let him just watch," Muriel suggested.
"If he just watches he won't know how to fix the one in the bathtub." (AT.AT.214)

Example (7) follows pattern (2). In a conversation about brands of shoe polish, one speaker describes his preferred brand, and then justifies having offered the description. This is the situation commonly found in speech-act conditionals – the recommendation is given (the speech act is performed) first, and then its appropriateness is clarified (see Diagram 11).

(7) I use the liquid kind. It's the brand with a nurse's face on it, if you ever need to know. (AT.AT.119)

In (8), the speaker imagines her dead son's judgments of his surviving family. This necessitates specification of a mental space (one where Ethan "comes back") wherein such speculation makes sense.

(8) "We wonder what Ethan would think of us, if he could come back and see us." (AT.AT.184)

Example (8) exemplifies the interaction between the information-structure demands of different constructions, as they occur together. What the speaker wonders is "if Ethan could come back and see us, what would he think of us?" Although the whole conditional is the complement of *wonder*, the fact that the Q-clause of the conditional is a question makes it more natural to put that Q-clause before the *if*-clause, allowing the WH-word to occur in first position within the complement of *wonder*. WH-words are topics, and also serve as complementizers; these are pressures to place them at the left margin of the units within their scope, not just at the left margin of their clause. It is not that it seems ungrammatical to say *We wonder, if Ethan could come back and see us, what he would think of us*. But the attested order seems far more natural. The question information structure seems to override the fact that the space of Ethan's return is contextually non-given (though perhaps already evoked in the speaker's mind).

Examples (9) and (10) follow pattern (3). Q precedes P because the initial Q-clauses are contextually related to preceding discourse: in (9), Q negates an opinion about the mother's reaction expressed earlier, while the one in (10) refers back to an offer that has just been described. The intonation pattern is commaless because in neither case is Q newly put forward – in fact, in (9), one could make a case that the only "new" information is a negation (loosely interpreting *would feel terrible* as a negation of an earlier *wouldn't care*); the rest of the conditional is contextually given. We should also note that in spite of important differences, the mental-space set-up of sentences (9) and (10) (which follow pattern [3]) is very similar to that of pattern (2) (see Diagram 11).

(9) "That's not true," Macon told her. "Your mother would feel terrible if you left." (AT.AT.184)

(10) "So I said I would do it for room and board if I could bring the baby and she said yes, that would be fine." (AT.AT.178)

The distanced *would* in both Qs also enhances topic continuity, by keeping the information labeled for placement in the right mental spaces. The "past" *would*, in these examples, is already a signal to the reader, before P is expressed, that the content of the Q-clauses should be considered in the context of a particular

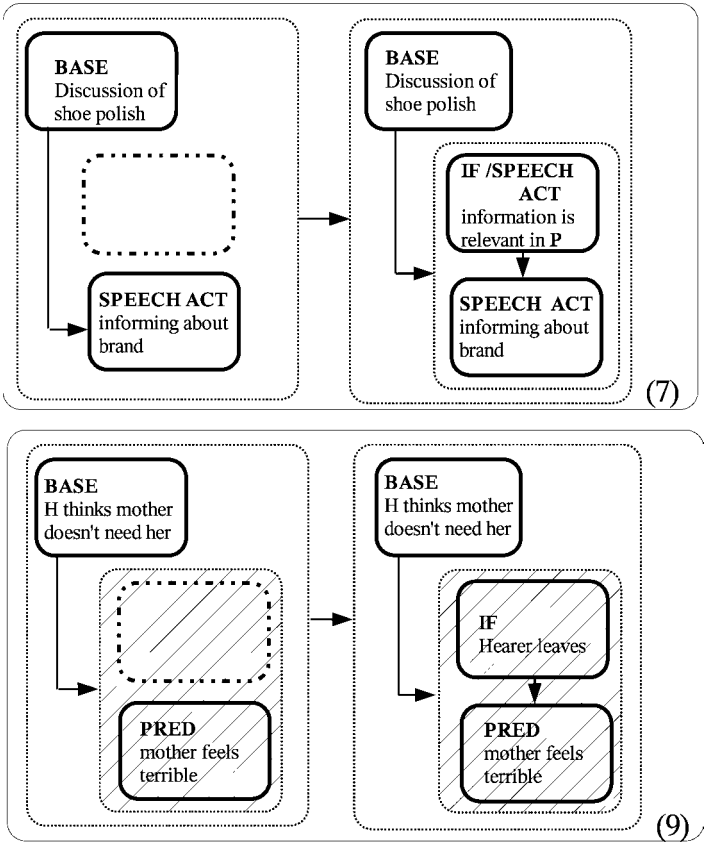

Diagram 11 *Example (7) It's the brand with a nurse's face on it, if you ever need to know.*
Example (9) Your mother would feel terrible if you left.

space – one which is contextually accessible and topical. In (9) this space is a negative-stance space (wherein the addressee leaves), while in (10) it is a past space of the quoted past speech act.

In such cases, the distanced space is first accessible to the hearer through the Q-clause, unmediated by P. The distanced *would* in (10) locates Muriel in distanced reasoning even before the actual P-clause appears. In fact, distance-marking alone can signal to the hearer that the space being talked about is not the base space. It may further be completed with a P-clause specifying the nature of the distanced space (which is the case in [9] and [10]), or the speaker may rely on context to prompt the addressee to locate the distanced clause in

an appropriate space. In (11), for example, Rose is worried that her brother, Macon, might leave his unruly dog in her care.

(11) "What about when you start travelling again?" Rose asked. "You're not leaving him with me. I wouldn't know how to handle him." (AT.AT.125)

Although Rose could truthfully have said in the base space, *I don't know how to handle him*, she does not. Her comment *I wouldn't know how to handle him* refers to an imagined scenario where Macon would travel and want to leave the dog with her. And indeed, her statement *You're not leaving him with me* has created a hypothetical space wherein Macon might wish to leave the dog with Rose (a negation space [see Fauconnier 1985 [1994]). It is within that space that her inability to handle the dog would be a problem. The distanced form w*ouldn't know* sufficiently signals the speaker's reference to a non-base space; no explicit *if P* is necessary to identify the relevant space.

Examples (12) and (13) involve sentence-medial P-clauses. In (12), the speaker offers a metalinguistic comment on the appropriateness of the noun "vision" – a comment which cannot be separated from its referent by too much intervening text, and therefore cannot be placed after the end of the Q-clause.

(12) In this vision of her – if you could call it a vision, considering that he never did glance over at her – she was wearing a bright blue dress from the early days of their marriage. (AT.AT.10)

Sentence (13) is a more interesting case. The comment ("if Governor Bush prefers") is an additional hedge softening a bold proposal to recount the votes for the entire state of Florida, in the 2000 US Presidential election. The Republican presidential candidate, Texas governor George W. Bush, strongly opposed any recounts. The proposal of his opponent, Gore, is made less confrontational by a P-clause which cleverly involves Bush in the decision even before making the suggestion. The softening (or ironic) effect of the sentence-medial P-clause would be lost if its placement were sentence-final, because this would initially put Gore unconditionally on record as suggesting a total recount.

(13) "I am also prepared, if Governor Bush prefers, to include in this recount all the counties in the entire state of Florida," Gore said. (*Excite News*, November 16, 2000)

As these examples show, clause order in a conditional construction participates in message construction in a crucial way, responding to, and creating connections with, the ongoing contextual network of space construction. We will not give parallel examples of *when*-constructions here, but Ford (1993)

remarks that these constructions resemble *if*-constructions in preferring a *P Q* order. They seem closely parallel to *if*-constructions in other respects. Patterns (1)–(4) are possibilities for *when*, as for *if*, and with basically the same relevant contrasts with respect to discourse function and bound/unbound readings. This parallelism is not unexpected given that *when*-constructions also are space-builders, though with specifically positive stance.

The following sections and chapters will show in more detail how specific choices in clause-ordering patterns are tied to the specific mental-space configurations the constructions build.

7.3 *Because* and *since*: causal explanation and information structure in space building

In this section we briefly examine two adverbial-clause constructions which seem to have different clause-order preferences from *if* and we will explore how these preferences follow from their discourse uses.

The standard clause order for *because*-constructions is *Q because P*. This seems natural; *because*-sentences do not typically set up new mental spaces as background to further assertions. Instead, in their main function, they assert the causal relationship between P and Q, with Q often presented as presupposed. Sentence (14) is thus plausibly understood as asserting the reason for the crowd's inability to enter a virtual club (namely, entrance is only by invitation), while presupposing that the people can't get through the door. And in context, the writer clearly intends the reader to assume that someone looking at the described scene would automatically notice the people's inability to enter (which can thus be presupposed) but might not know the cause of this inability.

(14) These people can't pass through the door because they haven't been invited. (NS.SC.40)

Within the standard *Q because P* clause order, *because*-sentences appear in different intonation patterns. Sweetser (1990: 82ff.) discusses such sentences as examples of Chafe's (1984) generalization about "bound" (commaless) and "unbound" (comma) intonation: commaless intonation (as in [14]) is readily given an interpretation which presupposes the assertion embodied in the main clause and newly asserts only the causal connection between the clauses. Comma intonation, as shown in (15), demands an interpretation involving the assertion of the causal connection between the clauses and a Q-clause which is not presupposed but asserted or used as another independent speech act.

Example (15) conforms to this pattern: it suggests that food should be provided (performs the speech-act) and also communicates the speaker's reason for deciding to bring some provisions.

(15) "Well, let's get you some food, because I know you are all hungry." (AG.TB.91)

Sweetser comments that the bound interpretation is unlikely to occur in conjunction with a speech-act or epistemic reading of the causal relationship between the clauses. Sentences (14) and (15) are typical examples: (15) is clearly a speech-act causal sentence, while (14) is naturally understood as expressing a content relation between the clauses. Sweetser's explanation for this contrast is that it would be exceptional to presuppose the main clause of a speech-act or epistemic sentence, since this would involve presupposing the very speech act being performed, or the new conclusion being drawn. And indeed, these preferences resemble the ones discussed in connection with *if* (specifically patterns [2] and [3]).

Returning to clause order, *because*-clauses normally follow the main clause, unlike *if*-clauses, because their space-building functions are different. While an *if*-clause functions to set up a mental space, causal conjunctions are semantically more appropriate to elaboration of spaces. The main clause of a *because*-construction is normally construed as true in whatever space is currently being elaborated – this is independent of the *because*-clause, which does not specify the space but gives the cause of the main-clause event or situation in the same space. Space-building background has a natural reason to precede the content of the newly built space, while a state of affairs in need of explanation may reasonably be described first, before giving a causal explanation for it.

This does not mean, however, that *because*-clauses can never precede the main clause. The need to contextualize the content of the *because*-clause in preceding discourse or to ensure topic continuity may affect clause-sequencing options, just as in the case of *if*-conditionals. In (16), the addressee is being reprimanded for failing to follow his Mafia boss's order. The dire consequences presented in Q are the focus of (16), and while the causal connection is still the main message here (the addressee has to come to the realization of the results of insubordination), the cause itself is old information. In other words, the reversed clause order puts added emphasis on the causal sequence involved and gives additional focus to the content of Q.

(16) "Now, because you screwed up, Uncle Enzo doesn't get his wish." (NS.SC.149)

Since behaves like *because* in a number of ways. For example, it presupposes the validity of the *since*-clause in the speaker's reality space and expresses an explicit causal relationship. However, there are significant differences between the two conjunctions as well.

In contrast with *because*, *if*, and *when*, *since* seems unacceptable in the commaless *Q conjunction P* construction: *#I'll marry you since you're so sweet*, or *#He invited me since I live next door* are strange, though it seems normal to say *Since I live next door, he invited me* or *I'll marry you, since you're so sweet. Since* does not seem to allow foregrounding or focus on the assertion of the causal relation, which the commaless *Q conjunction P* pattern consistently signals. In this, *since* contrasts not only with *if* but, even more importantly, with *because*. The most common use of *because* is to assert causal relations, which is the reason why it often occurs in a commaless *Q because P* pattern. Not surprisingly, then, it would be perfectly acceptable to say *I'll marry you because you're so sweet*, or *He invited me because I live next door*.

It seems, then, that the clause-order preference signals an important distinction between *since* and *because*. They have both been described as causal, but only *because* seems to be possible in a "causality-asserting" constructional configuration. This clearly suggests that the causality present in the meaning of *since* is (in agreement with the analysis we proposed above) presuppositional, while it is genuinely asserted in the case of *because*.

This contrast is perhaps less clear in the examples representing the *Conjunction P, Q* structure, typical with *since* and possible with *because*. Example (17) is a "*since*" version of (16):

(17) Now, since you screwed up, Uncle Enzo doesn't get his wish.

While both (16) and (17) topicalize the reason for Uncle Enzo's disappointment and they will both be understood to mean that the content of P describes the cause of the disappointment, only (16) can possibly be read as asserting the causal relation. Both (16) and 17), however, can be interpreted as using P as a presupposed background to Q. The presuppositional function of *since* puts it in contrast with a number of conjunctions which can appear in constructions which employ stress or syntactic focalizing structures to mark the focus of contrast:

(18) I love you because you're sweet, not because you're rich.

(19) We'll eat when Sue arrives, not now.

(20) They had coffee after lunch, not before dinner.

(21) #He invited me since I live next door, not since I'm his boss.

(22) It's because you're sweet that I love you, not because you're rich.

(23) It's when Sue arrives that we'll eat, not now (/not when Joe arrives).

(24) It's after lunch that they'll have coffee, not before dinner.

(25) #It's since I live next door that he invited me, not since I'm his boss.

Various causal and adversative conjunctions take up their places on one side or the other of this contrast: *though* and *while* behave like *since*, and phrases like *in spite of the fact that* or *despite the fact that* behave more like *because*.

The pervasiveness of this contrast makes it important to recognize that *because* readily allows focus on the causal relationship itself, while *since* does not. Its presuppositional function is the central element of its meaning, while its causality can be seen as subordinate to the evocative function.

We can conclude by saying that comparison between *because* and *if* emphasizes the complexity of the interaction between information structure and the expression of conditional and causal relationships. *If* is not a topic marker and thus *if*-clauses can follow Q-clauses, especially when Q is old information. But space-builders in general, when used in active building as well as in evocation, do present material which is topical or backgrounded and do so *relative* to the contents of the new space. And similarly, *because* is not a "comment" marker; but causal explanations are often informationally secondary to the material being explained.

7.4 *Unless*: exceptive space building

Although *unless* is quite clearly conditional in meaning, it nonetheless manifests quite opposite preferences from *if* with respect to clause order. We shall argue here that these differences follow from the semantics of *if* and *unless*.

Unless-clauses most commonly follow main clauses, as even the most sketchy review of any larger corpus would show. The preference could be seen clearly in an unpublished (1991) study by Sarah Taub; her sample from the *Wall Street Journal* included twenty-seven examples of postposed *unless*-clauses and only one preposed *unless*-clause.[5] Furthermore, most of the postposed *unless*-clauses are separated from the main clause by a comma. Why should this be the case?

Dancygier (1985, 1987, 1998: 167–77) analyzes the semantics of *Unless P*, *Q* as *Q;[only] if P*, ∼*Q*. In other words, the main clause of this construction is asserted, with the reservation that in the case of P, it will not hold. There

[5] We thank Taub for sharing her findings.

is an understanding that under unmarked, normal circumstances, Q will hold; circumstance P, under which ~Q holds, is the exception.

Dancygier's original gloss was revised in Dancygier (2002), which we will follow here. First, we do not consider it necessary to include *only* in the description of the semantics of *unless*. The uniqueness of the *unless* space has been questioned before (see Declerck and Reed 2000) on different grounds, but in our analysis, we hope to show that this property follows naturally from other aspects of the interpretation of *unless*. Secondly, we feel that the gloss of the conjunction should reflect the sequence of steps in a standard *unless* reasoning. The revised gloss we will be using here is as follows: *Q; [(not Q) if P]*.

In terms of mental space-building processes, we might say that in examples such as (26)–(29), the speaker first asserts Q without explicitly identifying the space to which she is adding Q. It is also worth noting that *unless* does the same job of setting up an "exceptive" mental space, regardless of whether the space thus introduced is predictive, epistemic, speech act, generic, or any other variety.

(26) Will said, "I will never, never again do anything with the – the power, unless there is a reason . . ." (SC.DR.69)

(27) He gave no private interviews, unless the journalist was female and pretty. (CK.YLD.23)

(28) "I take good pictures: you'll see. Bloody old Potter would never let me shoot an inch of film unless he was there." (CK.YLD.33)

(29) "Shut the hell up unless you want to be arrested for interfering with the police," Lemour said savagely. (SP.HT.331)

In all of the sentences above, the Q-clauses could stand on their own as assertions, speech acts or generic statements – which are then somewhat restricted by the following *unless*-clause. The Q-clauses are added to the current mental space of the story or the conversation; and assuming this to be some highly accessible space (possibly the base space or some space construed as a real future or past counterpart of the base), there is no need to identify it explicitly. Indeed, the space in need of identification is the space wherein Q does *not* occur, namely the *unless* space, which is set up in the following clause.

Not surprisingly, *unless* is often used to present an afterthought or a reservation, or even to start a new line of exceptive reasoning (in a new sentence) which simply did not occur to the speaker at the time when Q was being presented. In (30) the private detective is trying to solve the case while also protecting

innocent people involved. She has stated her general reasons for pessimism about being able to achieve both goals, when a new idea occurs to her. Her use of *unless* is well suited to exploring a "loophole" scenario without invalidating the overall concerns she has expressed.

(30) "I couldn't possibly guarantee your safety, or the safety of the school. Unless . . ."
"Unless what?" Morrell said sharply when I didn't finish the sentence.
"Unless I get Baladine to come to me first . . ." (SP.HT.454)

Unless, like *if*, is useful in exploring trains of thought; in particular, it has special utility in highlighting exceptional possibilities amid larger contrary generalizations. An excellent example of such usage can be found in (31). In the story, three swimmers have been attacked by a shark. Two of them made it back to shore; the third, Christo, is missing. The narrator, Richard, is trying to guess what may have happened to him, and whether he could be saved, in order to decide on a course of action.

(31) If Christo hadn't been injured, he'd have made the swim with Karl. If he had been injured, however, Karl would have left him where I was sitting, intending to come for him later.
"Unless . . ." I muttered, clicking my fingers and shivering in the sea breeze. Unless he'd been killed outright at sea, in which case it was a safe bet he'd never be found.
"Or . . ."
Or he'd only been injured a little. He'd been fit enough to make the swim through the underwater passage. (. . .)
"That's it," I said firmly. (. . .)
"That's it. Christo is in the air pocket." (AG.TB.293)

Throughout the passage Richard is setting up alternative mental spaces. All of the spaces are hypothetical, and almost equally likely to be true or untrue. They are therefore presented through distanced forms, doubly motivated since the sentences represent Richard's narrative-past guesses about a yet earlier situation. First, he considers two basic alternative scenarios – Christo was injured, and Christo wasn't injured. Both are distanced, because they readily yield conclusions which contradict the facts – Christo did not swim back and was not left on the beach. At this point an added tragic possibility suggests itself – that Christo was killed. This hypothesis is presented with *unless*, not just because it constitues an exception to the two scenarios considered earlier, but also because Richard wants to think about Christo's death as the least likely, truly exceptional hypothesis. Thus *unless* not only starts a new stage in the reasoning, it also marks the space thus created as the one not to be considered at the same

level of hypotheticality. Finally, Richard opens yet another hypothetical space with *or*, once again not as an alternative to just the preceding space, but to the whole preceding course of reasoning which he has rejected – either because the conclusions did not fit the reality (both *if*-spaces) or because the hypothesis does not offer any hope or any useful course of action (the *unless*-space). The *or* hypothesis offers a glimmer of hope for Christo's survival and, as we learn later, proves to be correct.

We would thus explain the contrast between the preferred clause orders of *if*-conditionals and *unless*-conditionals by the semantics of the two conjunctions involved. *If* sets up a neutral space, often as necessary background to the hearer's success in connecting Q to the current mental-space structures of the ongoing discourse. *Unless*, instead, sets up a marked space, which is the unlikely or abnormal alternative to the already established space within which Q is claimed to hold. The *unless*-clause is therefore unnecessary to the processing of Q (whose immediate mental-space context is already accessible) and may indeed be an afterthought to what was initially intended as an unconditional assertion of Q.

Note that the *unless*-clause in (31) is syntactically sentence-initial, but in fact the *unless* exceptionality relates not forwards to a following Q, but backwards to the whole of the earlier reasoning. We thus cannot really consider *unless* at the sentence level only. As (31) shows, it can present a scenario as an exception to previously built mental-space structures which are relevant at the new stage of the reasoning, whether or not those structures are expressed in a preceding and syntactically connected Q-clause.

However, discourse context can require that an *unless*-clause precede a main clause. Most such examples use *unless*-clauses as hedges on speech acts or conclusions to be presented in the Q-clause. This seems natural, given that so-called conditions on speech acts do not in fact fully invalidate the speech acts themselves if proven wrong. A speech act communicated is a speech act performed, and the function of the *if*- or *unless*-clause is to soften the impact, give the hearer an escape route, or simply to add respect or politeness, rather than to cancel the speech act if the condition is not fulfilled. Such hedges are definitely more effective if uttered *before* a potentially offensive speech act. Also, they are not linked to their protases on the content level, so the connection between the Q-space and the P-space is less crucially dependent on the sequence of the set-up (as opposed to content causal/sequential relationships between P and Q, which may push for a particular clause order, all else being equal). The example in (32) seems to support this interpretation:

(32) "I'm pretty dead with yesterday's and to-day's work. Dancing all night on top of a journey is a jolly poor joke. Unless you want me, I'll wait here for the papers, or I may run over to Paris myself." (DS.CW.66)

In (32) Sayers' detective Parker is writing to Peter Wimsey, suggesting that he'd rather be less active in their ongoing investigation for the moment. The *unless*-clause follows a description of strenuous activity and is followed by a proposal for a less strenuous course of action. It does indeed present an exception to the situation wherein Lord Peter agrees to the proposal, but it is also a hedge on the speech act performed in Q (it prevents Parker's decision from being seen as unilateral), and as such it can naturally be used sentence-initially.

We may note that *unless* has often been claimed to semantically contain an *iff* reading (see Dancygier 1998: 167–69). By our analysis, the salient alternativity of *unless* (resulting from its exceptive meaning, and therefore present in all *unless*-constructions, including non-predictive ones) would provide a sufficient explanation for this characteristic. In a theory which maximizes local economy, it is unnecessary to say that the biconditionality of *unless*-constructions is due to a conventional semantics of uniqueness attached to the word *unless*; the biconditional interpretation is sufficiently motivated by the inferential structures involved in mutually exclusive scenarios. Under our interpretation, *unless* states Q as a basic default situation and then adds the *If P*, $\sim Q$ scenario as an exceptional alternative. It would be unacceptably uncooperative to present the situation in this way if there were other relevant circumstances which would also naturally bring $\sim$Q about. The construction is thus interpreted to mean that only the exceptive P will bring about $\sim$Q, and in all other situations Q will hold.

We have here argued that postulating an explicit "unique space" semantics is not necessary to account for *iff* readings in the case of *unless*. In fact, we would like to reserve that concept for the instances where an overt marker of the uniqueness can be found – such as the expression *only*. The use of *only* in conditional constructions will be discussed in Chapter 8.

7.5 Embedded constructions with *unless*

We have presented an initial overview of *unless*-constructions in which we accounted for the preferred *Q unless P* order of main clauses and *unless*-clauses. We have also introduced a gloss which seems to represent the exceptive nature of *unless* most accurately. In this section, we will use the framework of

mental-space embedding presented in Chapter 3 to dig deeper into the semantics of *unless*, and in particular to explain its interaction with distanced forms.

Unless-constructions have puzzled grammarians and linguists for a number of reasons. One standard treatment semantically equates them with constructions involving *if not;* the truth conditions of an *unless* sentence like *You won't get better unless you rest* seem very similar to those of *You won't get better if you don't rest*. But while many *unless* sentences are indeed easily paraphrasable with *if not*, it has been shown (see Dancygier 1985, Declerck and Reed 2000) that there are many cases where they are not (consider the contrast between *I'll be happy if you don't fail* vs.*# I'll be happy unless you fail*).[6] Other analyses (e.g., Geis 1973, von Fintel 1991, Declerck and Reed 2000) have focused on the "exceptive" aspects of the semantics of *unless*: the event described by the *unless*-clause is understood to be an exceptional circumstance under which the situation described in the main clause will not occur or hold true.

It has commonly been noted that *unless* is very rarely used with so-called "counterfactual" (or "hypothetical," or "conditional") verb forms: for example, sentence (33) is acceptable, but (34) sounds unnatural to many speakers.

(33) I wouldn't have finished if you hadn't helped me.

(34) ??? I wouldn't have finished unless you had helped me.

Consequently, it has been assumed that "counterfactual" forms clash with *unless* in some way (Quirk et al. 1972; Geis 1973; Dancygier 1985, 1998). The tacit assumption was that these distanced forms signaled counterfactual meanings, but the made-up examples like (34) could not be easily interpreted this way (one of the present authors has also previously argued [Dancygier 1998] that the difficulty in using hypothetical forms with *unless* arises out of the complex interaction between implied counterfactual interpretations motivated by the verb forms and the negative meaning brought into the overall interpretation by *unless* itself). The accepted conclusion, then, was that *unless* and counterfactuality do not go together.

In their (2000) paper on *unless*, however, Declerck and Reed present an analysis of corpus data which shows clearly that *unless*-clauses with counterfactual forms, although in fact rare, are used in natural discourse and are not in any way unacceptable. Based on the attested examples they have found (some of which we will discuss below), Declerck and Reed seem to claim that sentences

[6] Nor does etymology provide a motivation for such a paraphrase in the history of *unless* (Traugott 1997), since the *un*-part of *unless* is not in fact negative in origin.

similar to (34) (which they call "irrealis") should be considered generally acceptable.

So why were all the analysts who had worked on the issue so convinced of the unacceptability of such sentences? Why did the most thorough (and also corpus based!) grammar of English (Quirk et al. 1972) support the claim that hypothetical forms are not used with *unless*? Our suggested answer is that distanced verb forms appear acceptable with *unless* only when embedded in a complex context of a particular sort. These licensing contexts are extremely rare; in this respect, distanced *unless* examples are rather like concessive conditionals with *then*, which likewise require an unusual context (see Chapter 6). In the following section, we will argue (building on Dancygier 2002) that all *unless*-clauses with distanced forms are licensed by interpretations involving a particular and uncommon class of configurations of mental-space embedding.

7.5.1 Distanced unless*-clauses: some examples*

What drove most linguists to the conclusion that *unless* is incompatible with distanced forms was the scarcity of attested examples and their failed attempts to construct acceptable examples on their own. We have been able to find a sufficient number of attested examples to explain why it was impossible to invent such examples in isolation: they crucially rely on the mental spaces in which they are embedded. In this section, we examine some of those embedded contexts.[7]

In (35), the *unless*-construction is itself embedded in a distanced conditional space. An *if*-clause at the beginning sets up a distanced space in which the marriage takes place. Within that space, the speaker expects some degree of control on the wife's part. Then, still within the "marriage" space, an exceptive *unless*-space is set up, wherein Catherine's foolish indulgence would prevent the otherwise expected outcome. All clauses in the sequence are marked with distanced forms, because they are all considered against the background space of the hypothetical marriage.

(35) ". . . and if miss Catherine had the misfortune to marry him, he would not be beyond her control, unless she were extremely and foolishly indulgent." (Emily Brontë, *Wuthering Heights*, U-Va Electronic Text Center)

In (36), an *if*-clause introduces the hypothetical parent space (*if you were Vincent Moro*), but the space is elaborated through a sequence of clauses, all with distanced forms, before we get to the embedded *unless*-construction.

[7] For a more exhaustive discussion of distanced *unless*-sentences, see Dancygier 2002.

(36) After his first bite of the Polish dog, Michael observed, "This is how we'd meet if you were Vincent Moro – outside, where you couldn't be wire-tapped, and eavesdropping's harder. Except it'd be dark, somewhere the cops hadn't thought of." He peeled off a piece of bun, tossing it to a pigeon. "Unless I was naked, you'd *still* worry I was wearing a gun or a wire." (RNP.DL.134)

The situation in the base space (the interlocutors are actually in a park) is now viewed as an imagined ideal environment for the addressee, in an imagined role as mob leader Vincent Moro, to meet someone. The imagined space is enriched with additional desirable features (darkness, being unknown to cops). The addressee (still assumed to imagine herself to be Moro) is asked to see herself as suspecting everybody she talks to of wearing a gun, with the one unlikely exception of her interlocutor being naked, because then the gun could not be hidden. Michael puts a great deal into building up a rich hypothetical space, which would allow his interlocutor to understand the personality of the criminal they are pursuing. Distanced forms are maintained throughout Michael's speech, including the *unless*-construction, because it all expands on the same distanced space.

In (37), the negative imperative (*don't repeat that horrid noise*) creates a hypothetical space of noise-making which the addressee is warned against realizing.

(37) "... but, for Heaven's sake, don't repeat that horrid noise. Nothing could excuse it, unless you were having your throat cut!" (Emily Brontë, *Wuthering Heights*, U-Va Electronic Text Center)

In the next sentence the pronoun *it* refers back to the space just created (see M. Smith 2001 for an account of pronoun usage in the mental spaces framework). Using that reference, another space Q is set up, an overtly distanced one wherein the forbidden noise is repeated and not excused. Finally, *unless* sets up its exceptive space ("repeating that noise would be excused only if you were having your throat cut" [∼Q, in the exceptional case P]). What is particularly interesting here is that the space sequence starts with the imperative space, which is future and hypothetical, but not distanced. The "no excuse" space is distanced (because it considers a future action which has just been forbidden), and thus the exceptive space embedded in it inherits the distanced verb forms.

Examples (38) and (39) present a rather complex reasoning. The described incident with a car takes place at the beginning of a novel, and the characters are all trying to find a "rational" explanation for it. However, as (38)–(39) show, the reality space does not offer any explanations of what made the car jump. We

later find out that magic forces were at work, hence the speaker's bewildered tone in both of these fragments, uttered within the same conversation.

(38) "I know how it sounded, but really I am not mad, there was nothing that could have made her swerve to the side like that and hit the rock. Unless the steering rod is going." (SC.GK.13)

(39) "The car did just sort of jump sideways and hit that rock. I don't see what could have made it jump, unless it had run over a loose stone in the road – but that would have had to be a pretty big stone. And there was no sign of one anywhere." (SC.GK.13)

The verb forms in the *unless*-clause of (38) do not suggest distance, even though the preceding discourse does. In the first part, Will (the main character) looks back at the car accident and is not able to find an explanation in the past situation. He finally comes up with an acceptable scenario; this constitutes an exception to the belief that there was no rational reason for the accident to occur. But the suggestion (that the steering rod is going) would describe the present, verifiable, base-space circumstances as well, and therefore must be presented in a non-distanced way. What is more, the use of ordinary present progressive *is going* does not mean that Will considers the problem with the rod as a fact. It is still a hypothesis, although a hypothesis about present circumstances, and is intended to be interpreted non-factually.

In (39), Will returns to the problem a few minutes later. He still sees no reason for the car to have jumped and then offers another exceptive scenario with *unless*. This time, however, the *unless*-clause describes a potential situation in the past, at the time of the accident, so distanced forms are used, to mark the subordination of the "loose stone" exceptive scenario to the distanced space of "possible reasons for the accident," and to the past space of the accident. One could interpret the form *had run over* as merely temporally distanced with respect to the past event of "the car jumping," but the following clauses assure the hearer that epistemic distance is also involved, because the exceptive scenario could be taken seriously only if another dubious condition were fulfilled (the stone being big and yet remaining unobservable). That invalidates the exceptive scenario and returns us again to the empty "possibility" space of acceptable reasons for the accident.

The difference in the choice of verb forms in (38) and (39) arises not simply from presence or absence of hypothetical meanings, but from the speaker's different courses of reasoning. In reasoning patterns involving speculation, or the consideration and rejection of various possibilities, multiple mental spaces may have to be set up. Relations between the spaces have to be kept

clear – including embeddings, temporal connections, alternativity relationships, and epistemic stance. Verb forms, and distanced verb forms in particular, are one of the major tools speakers have in signaling such relations.

In all the above examples, the distanced verb forms were motivated by the embedding of the exceptive *unless*-space in distanced parent spaces. But none of the cases examined gave rise to strictly counterfactual interpretation. Since counterfactuality is a standard preoccupation of linguists analyzing distanced spaces, it is worth asking whether *unless*-constructions, once they are distanced, ever carry counterfactual meanings.

It turns out that counterfactuality is indeed rare in *unless*-sentences, but not impossible. As Declerck and Reed (2000) have pointed out, in attested instances of counterfactual *unless*-constructions the polarity reversal works differently from *if*-conditionals. A counterfactual *if*-construction would typically be understood to mean that the content of both P and Q is to be understood as "contrary to fact." In *unless*-sentences, as Declerck and Reed note, only the Q-clause is interpreted in this way, while the *unless*-clause is not. Sentence (40) exemplifies this pattern:

(40) "I have pulled my tail off," replied the younger Mouse, "but as I should still be on the sorcerer's table unless I had, I do not regret it." (Andrew Lang, *Red Fairy Book*, U-Va Electronic Text Center)

The *unless* construction here (*I should still be on the sorcerer's table unless I had [pulled my tail off]*) is located in a context which makes the polarity reversal crystal clear. The mouse is not speaking from the sorcerer's table, and has obviously lived to tell the tale – hence the polarity reversal of the Q-clause. Furthermore, the mouse has just said that he had pulled his tail off, which confirms that the *unless*-clause has not itself undergone polarity reversal, even though it participates in a counterfactual construction. We should note, however, that some speakers of modern American English still find the use of *unless* in the sentence only marginally acceptable.

Reconsideration of examples (35)–(39) makes it clear that they are unlike (40) in many respects. We have already noted that they are not counterfactual and we should now add they are not "polarity reversed," whether in the common sense of the word, or in the way (40) is. Still, some of their *unless*-clauses do contradict some assumptions in the "reality" space. For example, in (36), *Unless I was naked . . .* does not represent the situation in the real world, where the speaker is clearly not naked, having lunch with a woman in a public park. Similarly, in (37), *unless you were having your throat cut* certainly does not

implicate that anybody's throat is being cut – indeed the context assures us that no such thing is happening.

How does it happen, then, that these *unless*-clauses seem to stand in contrast to the actual world (the base space), even though polarity reversal is clearly not the answer? We will offer some suggestions in the next section.

7.5.2 Unless versus *except if*

In their (2000) paper, Declerck and Reed distinguish two types of irrealis *unless*-constructions. Sentences like (41) are labeled "counterfactual," while sentences like (42) are described as "imaginary," because counterfactual meanings do not arise in their interpretation. We might paraphrase this by saying that in (41) the distanced verb form *had gone along* is interpreted (in context) as counter to base space "fact," while in (42) the distanced *had decommissioned* need not be so interpreted.

(41) But unless I'd gone along with you, you'd have told my husband, I bet (COB-W)
[It is assumed that the speaker did "go along with" the addressee.]

(42) [If the British had wanted to call all-party talks,] they would not have succeeded in bringing the Unionists to the table unless Sinn Fein had decommissioned arms (COB-W)
[It is not assumed that Sinn Fein decommissioned arms.]

In their discussion of the postulated classes of sentences, Declerck and Reed make some interesting observations about possible paraphrases of sentences like (41) and (42). Their "counterfactual" sentences, such as (41), can be paraphrased with *if not*, but not with *except if* (see [43]). On the other hand, the "imaginary" sentences can freely be used with *except if* instead of *unless*, but cannot be paraphrased with *if not* (see [44]). In other words, Declerck and Reed are suggesting that *unless* in "imaginary" sentences has the meaning closest to *except if*, while *unless* in "counterfactual" cases is essentially equivalent to *if not*, especially in a paraphrase such as "if it hadn't been for the fact that."

(43) *But except if I had gone along with you / But if I hadn't gone along with you / But if it hadn't been for the fact that I went along with you, you'd have told my husband, I bet.

(44) [If the British had wanted to call all-party talks,] they would not have succeeded in bringing the Unionists to the table except if Sinn Fein had decommissioned arms / *if Sinn Fein hadn't decommissioned arms.

It is not surprising that *unless* should be paraphrasable with *if not*. The two have been treated as equivalent by many analysts. It is also not unusual to consider *unless* as closely related to *except if*; Geis's early study of *unless* suggests near synonymy of the two, and recent work by von Fintel on the "exceptive" meaning of *unless* supports the idea of a close relationship between the two expressions. Indeed, Declerck and Reed themselves seem to consider them nearly equivalent. The interest in Declerck and Reed's analysis lies in their proposed generalizations about contexts where these two possible readings of *unless* occur.

However, these synonymies raise further questions. For example, we would like to know why these two meanings of *unless* occur in the contexts they do. And perhaps more immediately, a proposed "except if" sense of *unless* is analytically useful under the assumption that we understand the semantics of *except if*. However, the semantics of *except if* itself has not (to our knowledge) been examined in detail. The results of our preliminary searches suggest that the use of *except if* is limited to certain kinds of discourse. The University of Virginia corpus, which covers major pieces of narrative prose, yielded no cases of *except if* at all. On the other hand, a Google search, which browses through texts available on websites, yields a number of hits – most of which point to a specific genre range: instruction manuals, sets of instructions for games and gadgets, cookbooks, computer programs, etc. All these texts attempt to explain specific rules in an explicit and economical way. A few notable exceptions are found in website headlines, where brevity is also desired (for example, a header announcing a new game: *Finally a game worth playing except if u belong to the SPCA* (http://www.mail-archive.com/struts-user@jakarta.apache.org/msg85933.html). It seems, then, that *except if* is more useful in constructing specific and localized exceptive spaces. We will explain later in the section how the *except if* space is indeed more specific than the *unless* space.

There still remains the question of why *except if* is acceptable as a paraphrase for some *unless*-sentences, but not for all, and why in particular it would be an unacceptable paraphrase when the space being structured is counterfactual. Declerck and Reed argue that the difference results from the fact that *except if* is non-factual, because it uses *if*, which is always non-factual, while *unless* does not have to be understood non-factually. And because *unless* does not have to be non-factual, it can interact in an acceptable way with counterfactual meanings.

But on examination, there seems no basis for treating *except if* and *unless* as contrasting specifically with respect to non-factuality. The fact that the former

conjunction contains *if*, which undoubtedly is among the most common expressions of non-factuality in English, while the latter one does not, is not in itself a proof that *unless* cannot be treated as a trigger of non-factual interpretations. *Unless* considers situations which are exceptions to asserted statements (or performed speech-acts), making it natural for the clauses in its scope to be non-factual or potential. *Unless* behaves like *if* in many other ways, all related to non-factuality. It structures mental spaces of the same non-factual types as *if* (predictive, epistemic, speech act, etc.); it requires backshift for predictive set-ups just as *if* does, and, as we have seen, it uses distanced forms in the same way *if* does. Besides all of this, we have shown that non-predictive *if*-conditionals may have protases which are not only non-distanced, but contextually assumed to be factual; see Chapter 4. So it is impossible to treat *if* and *unless* as deeply distinguished by an essential contrast in factuality.

We want to argue that the difference in acceptability between *except if* and *unless* in sentences with distanced forms should not be attributed to non-factual meanings or to the way in which hypothetical spaces are set up (as "imaginary" or "counterfactual"), but to the scope of mental spaces accessed by the two conjunctions (see Dancygier 2002).

The analysis to be advocated here will be exemplified with two sentences discussed above. We will refer to the space constructed by *unless* as an "exceptive" space (following von Fintel and others). We will also assume that the exceptive space is set up by postulating a condition which would create a result constituting an exception to the previously established space. We will also try to show how the space set-up used matches the gloss for the meaning of *unless*-constructions (*Q; [(not Q) if P]*), which Dancygier has argued for (Dancygier 1985, 1998) and which we reviewed earlier in this chapter.

We will first attempt to represent examples (35) and (40), repeated below as (45) and (46), in terms of the mental-space configurations they involve. We will then try to explain why one of the set-ups allows the use of *except if*, while the other one does not.

(45) ". . . and if Miss Catherine had the misfortune to marry him, he would not be beyond her control, unless she were extremely and foolishly indulgent . . ." (Emily Brontë, *Wuthering Heights*, U-Va Electronic Text Center).

This is an example of an *unless*-sentence in which *except if* can be substituted for *unless*, but *if not* cannot. The mental-space interpretation of (45), represented in Diagram 12, starts with construction of a future conditional distanced space (*if R*) in which the undesirable marriage occurs. An extension of this

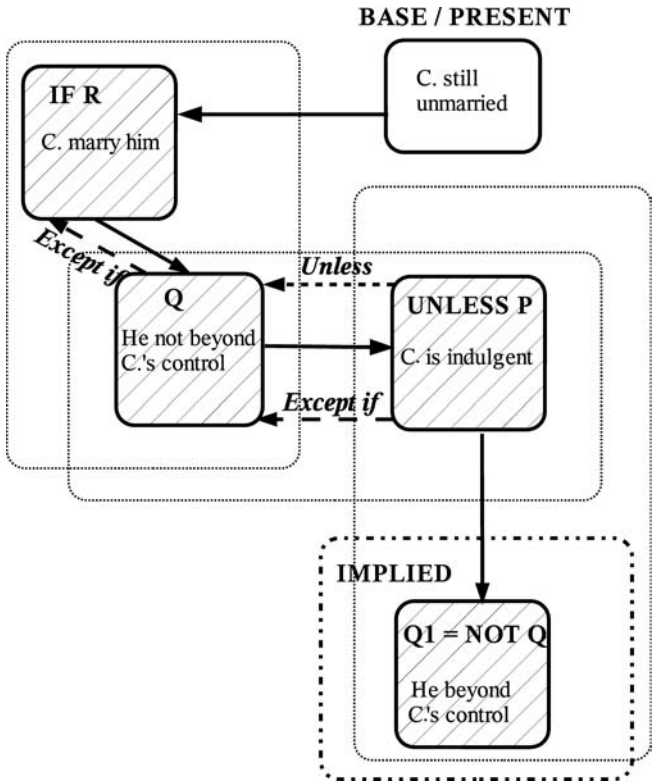

Diagram 12 *Example (45) If Miss C. had the misfortune to marry him, he would not be beyond her control, unless she were extremely and foolishly indulgent.*

"marriage" space is then built, incorporating Miss Catherine's ability to control her hypothetical husband. This "control" space is also the Q in Dancygier's gloss, because the exceptive scenario will refer to this space. Next, the exceptive *unless*-space is set up, in which Miss Catherine is imagined as extremely and foolishly indulgent (this is P in the gloss). The expected result of such behavior is the husband's falling beyond Miss Catherine's control (∼Q). In Diagram 12, all these set-ups are represented by continuous line arrows linking the spaces. As we can see, all of the spaces in the reasoning are marked for distance, but they are not interpreted counterfactually, for they are all embedded in the distanced "marriage" space. The only space which could receive a counterfactual interpretation is the marriage space itself, but its future reference precludes its clashing with the novel's base space in any way.

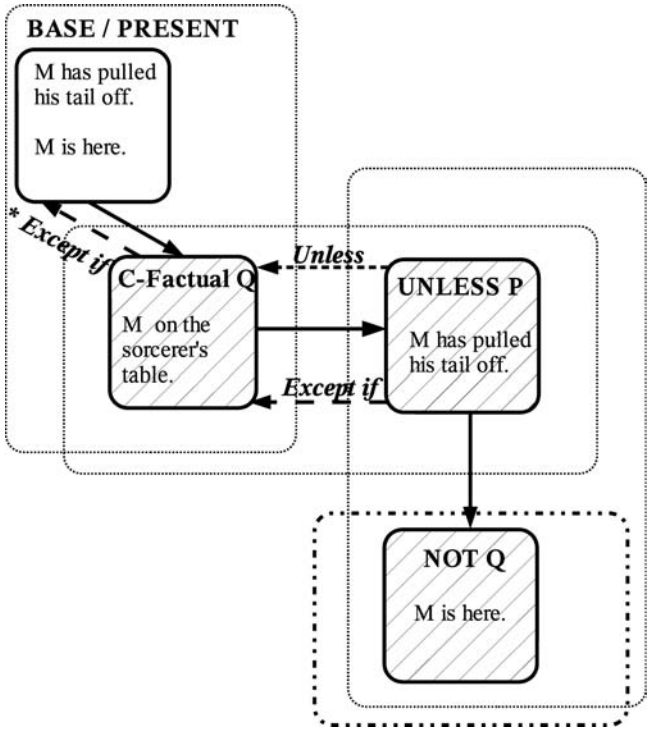

Diagram 13 *Example (46) [I have pulled my tail off, but as] I should still be on the sorcerer's table unless I had, [I do not regret it].*

For the counterfactual example (46), the set-up of the base space will be different, since the presence of explicit assumptions accounts for the counterfactual interpretation of the construction (see Diagram 13). However, the structure of the hypothetical *unless* reasoning will be quite similar to the reasoning we have just outlined for (45).

(46) "I have pulled my tail off," replied the younger Mouse, 'but as I should still be on the sorcerer's table unless I had, I do not regret it." (Andrew Lang, *Red Fairy Book*, U-Va Electronic Text Center)

The first two clauses of (46) ("*I have pulled my tail off," replied the younger Mouse*,) present several assumptions as facts. Among them there are two assumptions relevant to the exceptive reasoning: that the Mouse has pulled his tail off (he says so and his interlocutors can presumably see that he is tailless), and that the Mouse is with his friends, and not on the sorcerer's table any more. Then a counterfactual space is constructed (Q in the gloss) in which the

Mouse is still on the sorcerer's table, not "here," with his friends. The next space is the exceptive *unless*-space (P in the gloss), which repeats an assumption we already know to be factual in the base space of the fairy tale: that the Mouse has pulled his tail off. Not surprisingly, the consequence of such an assumption (∼Q in the gloss) is another known fact: that the Mouse is here, with his friends, and not in the sorcerer's power.

As the above analysis shows, there is no essential difference between the mental-space set-ups for the so-called "imaginary" and "counterfactual" *unless*-clauses. Both cases involve mental-space embedding (which also accounts for the use of distanced verb forms), and construction of hypothetical spaces, followed by the construction of exceptive spaces. The only significant difference is the content of the spaces. While the base space in the case of (45) contains no assumptions which would require a counterfactual interpretation of the hypothetical space and its daughters, in (46) the setting up of the hypothetical space in the counterfactual case directly negates the assumptions in the base space. As a result of this different relation between the contents of the base and the hypothetical spaces, the counterfactual *unless* cases create a set-up in which the base space and the exceptive space end up having the same assumptions in their structure. In other words, the assumed exception to the hypothetical/counterfactual space turns out to be the reality space itself. Given that such a set-up yields a result which is essentially circular, it is no longer surprising that counterfactual *unless*-sentences are rare (even among the already rare distanced *unless*-sentences, and also among counterfactuals in general).

We are now ready to consider the difference in the acceptability of *except if* in the two classes of *unless* examples. As Declerck and Reed have shown, *except if* is acceptable in cases like (45), but not in counterfactual cases (such as [46]).

Unless seems to set up a new discourse unit, a fresh mental-space network not directly related to the preceding discourse. In our examples, the contexts are the hypothetical spaces represented by the clauses *he would not be beyond her control* and *I should still be on the sorcerer's table. Unless* does not "look up" to the base space to check for overlap, because it begins a new set-up, rather than elaborating a single coherent network also involving the preceding spaces. This independence means it does not "see" that the exceptive space being set up in (46) repeats the crucial content of the base space and creates a set-up in which the exceptive space is the same as the base space where the whole reasoning has originated (in Diagram 13, the dotted arrow goes up one step; that is as far as *unless* checks for coherence).

Except if, on the other hand, builds an exception to the immediate parent space, as part of the larger integrated network in which the parent space is located. In a case like (46), then, the set-up is ill-formed, because the "grandparent" space contains as factual the same material which is presented with negative stance in the exceptive grandchild space. Since a single integrated network is involved, contradictions in epistemic stance are problematic (in Diagram 13, there are two dashed arrows representing the scope of *except if*'s search; the first step is acceptable, the second one finds a clash between the *unless* space and the base, and an *except if* set-up is rejected).

As we noted above, (46) is still unacceptable to many speakers of American English. But the same speakers who find (46) problematic find it better when rephrased with the *unless*-clause preceding the main clause. Why? An attested example of this type is (41), quoted after Declerck and Reed 2000 and repeated here, which seems much better to most American speakers than (46).

(41) But unless I'd gone along with you, you'd have told my husband, I bet. (COB-W)
[It is assumed that the speaker did "go along with" the addressee.]

Our explanation for this is that the exceptiveness of *unless* fills a different discourse function when the main clause precedes than when it follows. *Q unless P* normally demands that Q be set up as an independent generalization, to which P offers a loophole which essentially does not invalidate the broader claim. *Unless P*, *Q*, on the other hand, is an order which may arise from various discourse causes; in (32), we argued that the order of *unless you want me, I'll wait here for the papers* is motivated by the need to soften an otherwise unilateral decision by setting up a loophole before announcing it to a colleague. However, an initial *unless*-clause may also truly be setting up a new "loophole" space – jettisoning the previous network of alternatives. In this case, it is easier for readers or listeners to process the negative stance and even to process it counterfactually; an initial distanced *unless*-clause is a clear notice that they no longer have to compare with the previous network for contradictions in stance towards the same material.

We are claiming, then, that *except if* and *unless* are different (and thus each acceptable in some exceptive scenarios but not in all the same ones) not because sensitivity to counterfactuality is built into their constructional meanings, but because they in fact set up exceptive spaces of different kinds.

Example (47), a description of the Gregorian leap year rule, allows us to see what are probably a single writer's three different formulations of the same

generalizations. The *except if* sequence (our italics) shows a series of embedded exceptions: 100-multiple years are an exception to the 4-multiple rule, while 400-multiple years are an exception to the 100-multiple rule (and therefore *not* in fact an exception to the overarching 4-multiple rule). This clearly illustrates the local nature of the "exceptiveness" involved in *except if*; each *except if* sets up an exception to the *immediately* higher generalization.

(47) February 29th, 2000
This fact follows from the leap year rule for the Gregorian Calendar: In the Gregorian Calendar (for years from 1 A.D. onward) and in the Common Era Calendar (for all years, positive and negative) *a year is a leap year if it is divisible by 4, except if it is divisible by 100, except if it is divisible by 400*. Or in other words: All years divisible by 4 are leap years except for years divisible by 100 but not by 400. Or again: If a year is divisible by 400 then it's a leap year, otherwise if it's divisible by 100 then it's not a leap year, otherwise if it's divisible by 4 then it's a leap year, otherwise it's not. (http://hermetic.nofadz.com/y2k/feb29.htm) [italics ours]

Note that the explanation would be misleading and unclear if we replaced both of these *except if*s with *unless*; readers would be trying to interpret these two contradictory exceptions in parallel, rather than one embedded in the other.

Our conclusions: *except if* embeds recursively, with local "exceptive" meaning – but apparently leaves contradictions in the network accessible for comparison. *Unless* does not embed recursively – instead, it sets up a new space, relatively separate from the previously established ones; and this separation or independence prevents direct intra-network comparison and identification of certain kinds of contradictions.

Declerck and Reed (2000) also note that *if not* can be substituted for *unless* in cases like (46), but not in ones like (45). The awkwardness of *if not* in (45) is not surprising, because *if* is not essentially exceptive and does not build exceptive spaces (although it may serve an exceptive function in the right context). It is possible in (48), which is a paraphrase of (46), because it is typically acceptable in counterfactual scenarios, not because it is exceptive in the way *unless* is.

(48) "I have pulled my tail off," replied the younger Mouse, "but as I should still be on the sorcerer's table if I hadn't, I do not regret it."

The space set-up represented by (48) resembles that of (46), which explains the possibility of the paraphrase (see Diagram 14). Examples (46) and (48) have the same parent-space assumptions (about the Mouse having lost his tail, but having escaped the sorcerer), and they both build a hypothetical counterfactual

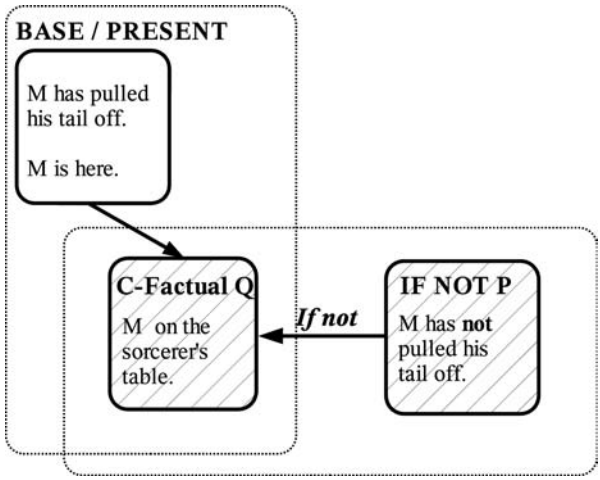

Diagram 14 *Example (48) [I have pulled my tail off, but as] I should still be on the sorcerer's table if I hadn't, [I do not regret it].*

space in which the Mouse is still in the sorcerer's hands. In (48), however, the counterfactual space is presented as dependent on the Mouse NOT losing his tail. Consequently, the conditional is indeed presenting a situation which is contrary to fact, but which is not seen as exceptive. We have not created a contradiction on our mental-space network by treating one and the same situation (the Mouse pulled off his tail) both as fact in the base space and as a distanced or counterfactual situation. In (46), for comparison, *unless* introduces a similar space (about the Mouse losing his tail), but without the negation, because that part of the interpretation belongs to the exceptive set-up typical of *unless* and represented in the gloss (*Q; [(not Q) if P]*). Although the sequencing of the spaces and their content may be similar in (46) and (48), it would still be hard to claim that *if not* is equivalent to *unless*, since *if not* lacks the exceptive meaning.

It is not surprising that we cannot paraphrase (45) with *if not*. There is limited similarity here between the relevant mental-space structures, primarily because (45) is not counterfactual. This does not mean that *if not* is always counterfactual with distanced forms, but it is naturally understood that way in the absence of sufficient context to suggest a different kind of embedding. If we try to paraphrase sentences like (45) with *if not* in isolation, such a context is simply absent.

We conclude, then, that differences in mental-space embedding patterns account for a number of puzzling facts about the behavior of *unless*

constructions. In fact, the observation that *unless* does not look at the content of the higher (embedding) space also accounts for the fact (noted above) that *unless*-clauses of non-counterfactual sentences can contain assumptions which clash with the content of the base space in some way, although they would not be described as cases of polarity reversal. The point is that all the assumptions which *unless*-clauses are attested as clashing with are located not in the immediate parent space, but in the higher local base space – which, as we have just shown, is a space that *unless* is "blind" to. So if we see a clash between the base space and the *unless*-space, it is because *unless*-constructions do not require a scan for such a clash in order to be licensed. For example, *unless I was naked* in (36) certainly does not agree with the state of affairs in the base space of the past conversation between Michael and his interlocutor, but the base space is not considered in licensing the exceptive space set-up performed by *unless*.

As a final note, let us mention a group of constructions with *unless* which are examples of embedded perspective in a past narrative space – or, if one prefers the term, of represented speech and thought. The analysis proposed above makes it clear that there is no need to set such sentences aside. The cases of free indirect speech and indirect speech proper (as in [49]) should be treated along with all the examples above, as cases of mental-space embedding.

(49) "I told you that you were not to call me unless you were in the utmost need . . ." (Andrew Lang, *Red Fairy Book*, U-Va Electronic Text Center)

7.6 Conclusions

The attested forms of *if*-, *because*-, and *unless*-constructions reflect the complex interaction between information structure, conditional and causal content, and the building and embedding of mental spaces. Careful examination of correlations between such factors not only sheds light on basic issues such as clause order in *if*-conditionals, but also gives us a new and clearer understanding of what has been perhaps the most problematic subset of English conditional data, the distanced uses of *unless*.

We would like to emphasize once again the complex layering of multiple (and sometimes competing) functions which is involved in any single attested conditional form. Order may be influenced by topicality, givenness, and relative backgrounding or foregrounding; but it is also influenced by interactional issues, such as the need to express a hedge or a softener before performing the speech act to be hedged. All of these factors are layered onto the basic conventional

functions of these constructions: the presentation of conditional and causal relations. An apparently small semantic difference, such as conditional versus exceptive conditional, may have major consequences for this complex balance; and as we have seen, even the contrast between *unless* and *except if* makes a real difference to how embedding and clause order play out. We will further explore this trend as we move on to the examination of the interaction between *only* and conditionality.

8 *Uniqueness and negative stance: "only if" and "if only"*

If only there was a camera that captured smells. (AG.TB.197)

Only, like the exceptive semantics of *unless*, conventionally and explicitly modifies the inferential structure of conditional space construction. These modifications in inferential structure affect the informational structure in ways which interact with the clause-ordering principles discussed in the previous chapter. The clause ordering further interacts with scopal relations of *if* and *only*, and with the polysemous semantics of *only* – making these constructions an ideal laboratory for the interaction of multiple parameters involved in grammatical space building.

Only if and *if only* take part in distinct constructions, each of which inherits structure from the basic *if*-conditional construction, but each of which also inherits or takes motivation from other orthogonal constructions. In addition, *if only* (in contrast with the more compositional *only if*), takes part in special constructions whose form and meaning are not compositionally predictable. Mental Spaces Theory, however, gives us convenient formal ways to express some of the contrasts between these two classes of constructions, and between each of them and central *if*-conditionals. We shall first examine *only if*.

8.1 *Only if*: space uniqueness and negative meaning

In understanding the combinatorial semantics of *only* and *if*, the first relevant factor is scope interaction. *Only* combines compositionally with sentence semantics in different ways depending on its scope relation to the clause. In the standard case of *only if*, *only* precedes and has scope over the entire adverbial *if*-clause constituent of the main clause. The compositional meaning should be that Q holds "only in space P" not in other spaces; and indeed this seems to be the primary aspect of the reading. However, *if only* presents

much more complex problems of scopal interpretation and of the polysemy of *only*.[1]

Only-if examples such as (1)–(3) are not identical in form, but all of them mean that P is a defining characteristic of the *only* space in which Q holds; for instance, (1) means (loosely) that "the *only* way that new nurses can be recruited is if they are paid $38 per hour," while (2) suggests that buying is an option *only* in the case where renting is less satisfactory.

(1) They [British Columbia nurses] insist B.C. will be able to attract new nurses to alleviate the scarcity only if the government pays them $38 an hour. (B.Yaffe, *Vancouver Sun*, June 21, 2001)

(2) But I only want to buy something if it's a reasonable alternative to renting." (SP.HT.33)
[detective needs a car]

(3) Perhaps, I thought, I should simply take off. . . . Perhaps only if I went downstairs and out into the blizzard and walked for a while . . . would I manage to understand what was engrossing them. (SS.IA.14)

Only immediately precedes *if* in (1) and (3); in (2), it instead occurs adjacent to the main verb of the Q-clause, still preceding the *if*-clause. This ordering of *if* and *only* corresponds to their semantic scopal relations: that is, we are not being told that there is only one relevant characteristic of the space in question, but that among spaces, only this space is an acceptable one. At the same time, *only if* should not be taken to mean that only one viable option exists. As Horn (1969) has shown, *only* should be treated as asserting the negation of the denied options, and presupposing the truth of the selected one. This fits the conditional data well: (1) seems to assert that nurses won't work for less than $38 an hour and can be taken as presupposing that they will if paid what they ask or more. The *only-if* space is thus a uniquely sufficient space out of a roster of spaces under consideration.[2]

Further, in all cases, no matter what the order of clauses, the single assertion to be gathered from an *only-if* conditional appears to be the *exclusivity* of the P-defined space as a setting for Q; (1)–(3) all seem to presuppose some

[1] For interesting discussions of uniqueness and negative meaning, see van der Auwera 1985, McCawley 1974.

[2] Note that *only* must specifically precede (not just "command") *if* to have scope over it. We would eliminate the *only-if* reading by moving the *only* in (3) from its position adjacent to a preceding P-clause, to a position adjacent to the main-clause verbal complex of a Q-clause which follows the *if*-clause rather than precedes it. (For helpful discussion of the role of precedence and hierarchy in such scopal interpretation, see Brugman 1986.)

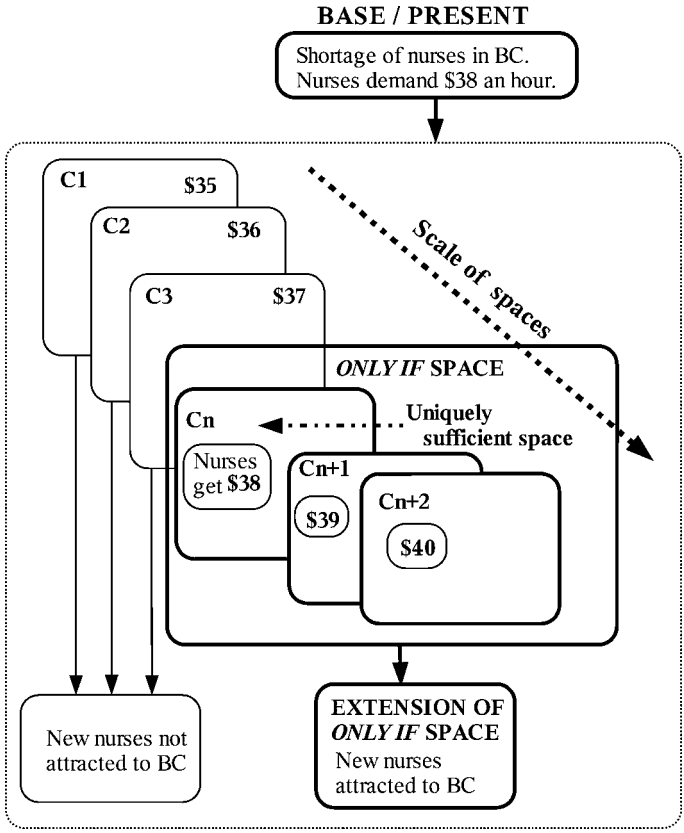

Diagram 15 *Example (1) They (BC nurses] insist BC will be able to attract new nurses to alleviate the scarcity only if the government pays them $38 an hour.*

contextual availability both of Q, and also of possible space settings for Q. This follows fairly readily from what we know about ordinary *if P, Q* conditionals. Since the *iff* implicature is a normal concomitant of alternative conditional prediction, there is no need to assert it explicitly by saying *only* unless the speaker needs to contrast the unique space where Q holds with other contenders which are on the floor. And for this contrast to be at stake, of course Q must be on the floor as well.

The final configurations of (1) and (2) are very similar: they set up a mental space characterized by P, which is marked out as the sole space wherein Q holds; in all other spaces (∼P spaces) we find ∼Q instead. The difference between *Only if P, Q* and *Q only if P* is a matter of *how* this final

mental-space structure is built up. As remarked in Chapter 6, and in Dancygier and Sweetser (1997), it is a general characteristic of *only-if* constructions that they build up a new P as background to a previously set up Q. In (1), for instance, the issue of alleviating the shortage of nurses in British Columbia is treated as familiar background. In (2), we know that the detective needs a car and probably wants to buy one. In both cases, as in other instances of the use of *only if*, the speaker is essentially limiting the available options for solving the problem by insisting on the *uniqueness* of her proposed space. Examples (1) and (2), differing in the placement of *only* but sharing *Q if P* clause order, therefore begin by recapitulating the shared conversational ground, and continue by placing that ground as potentially realized, in a new mental-space context. The placement of *only* inside the Q-clause in (2) gives a processer earlier warning that Q will not be placed in some general base space context, while the order of (1) waits to mark this information on the *if*-clause itself; but in conversational context, the listener may have numerous other clues to tell him that the space involved is not merely the base space.

The above discussion would predict that comma intonation should not occur with *only if*, since commaless intonation characterizes conditionals where Q is not independently built up, but only evoked in its conditional relation to P. This seems to be a correct prediction, not just for (1) and (2), but for all cases in which *only if P* follows *Q*.

The *Only if P, Q* clause order in (3) changes the sequence of space-building instructions. It first sets up P as a unique space wherein something holds, and only subsequently identifies the Q which holds in that space. Although this order is the ordinary one for conditionals not marked with *only*, it is a marked one for *only-if* conditionals, whose focus is on the exclusivity of one particular space as the one wherein Q holds, and not on the general building up of spatial content. The "new" focal material in an *only-if* conditional is not Q, but the *only-if* clause and its relation to Q. Examples (1) and (2), which present the topical and given Q first, and P afterwards, are not only less marked in clause order than (3), but also show unmarked word order within the clauses. The markedness of the order of clauses represented by (3) was also confirmed in our corpus search, as the *Only if P, Q* sequence appears to be very rare.

Along the lines suggested in Chapter 7, we see the "inverted" word order of the main clause in examples like (3) as a way of reconciling the demands of the continuing-topic status of Q with the initial position of the P-clause (initial position being normally topical). This is also why *then* does not co-occur with *only-if* conditionals: it marks reference backwards to a topical (and unique) P-space, while *only-if* P-clauses occur only in cases where Q is more given

than P, and where the uniqueness of P is new information relative to the content of Q.

However, the "inverted" (V-S) word order of Q-clauses following *only if P* does not appear to be a special conditional construction, but an instance of a broader English construction involving a postverbal subject NP and preverbal placement of some adverbial space-builder phrase involving negation or negative polarity in its semantics.[3] *If*-clauses are one specific class of such adverbial space-builders.

The required negative polarity of the preposed constituent in this "inverted" construction is exemplified in (4)–(7); (8) is an attested example with preposed *never*. The preverbal constituent is new, while the following verb and complements (e.g., mowing the lawn, in [4]–[7]) are topical material.

(4) Never (*always, *often) will I mow your lawn again.

(5) Under no (*any, *some) circumstances will I mow your lawn.

(6) Not until you get a new mower will I mow your lawn.

(7) Rarely (*sometimes) have I mowed such a bumpy lawn.

(8) Never have I seen a man run as Holmes ran that night. (Arthur Conan Doyle, *The Hound of the Baskervilles*, 1901–1902; U-Va Electronic Text Center)

Only participates in this preverbal adverb phrase construction in non-conditional examples as well as in the case of *only if*, as can be seen in (9); note that without the negative-polar *only*, (9) would be unacceptable.

(9) Only in a theatre did I feel free to pay attention to everything that went on about me. (SS.IA.207)

Following general rules about English adverb scope, *only* may occur either as a left sister to the verb (as is apparently appropriate for a negative element with a postverbal adverbial focus), or immediately preceding the adverbial element in question.[4] In both cases it precedes the element in its scope. Compare the following rephrasings of (9):

(10) I only felt free in a theatre.

(11) I felt free only in a theatre.

[3] This in turn may be part of a broader adverb-initial family of constructions; Green's (1976, 1980) work on examples such as *Into the garden walked a small white kitten* shows them to be characterized by discourse functions such as bringing the hearer closely into the describer's viewpoint space.

[4] See Brugman 1986.

The relationship between order and scope of *only* and *if*-clauses in *only-if* conditionals thus seems to be an instance of general rules as well. And, as we might predict, negative conditionals where *not* precedes and has scope over *if* also appear to be acceptable in the same syntactic structures manifested in *only-if* conditionals; e.g., *Not (even) if he was the last man on earth would I marry him*.

Only, which is not explicitly negative in its form, nonetheless either asserts (as Horn 1969 suggests) or at least implicates negative claims about all entities other than the one uniquely selected. Explicit negative space-builders may be seen as setting up some range (perhaps the full range, as in *under no circumstances*) of spaces and asserting these as *not* containing the situation described in the main clause. Our examples with *only*, on the other hand, might be seen as taking the inverse strategy, as we suggested above: they set up some space as the unique one in which the main clause holds, and thereby implicate that it does not hold in all other spaces. The end result is similar, in that there is some range of cases characterized by ∼Q.[5]

The structures involved in *only-if* conditionals thus follow from larger generalizations about English syntactic constructions involving space set-up, informational accessibility, and negative meaning. Although *only if* stands out among conditionals as having special syntactic and semantic properties, these follow from an understanding of conditional space construction and of the other semantic and syntactic elements involved. In short, examination of a wider range of non-conditional constructions allows us to see *only if* as more compositional than we might otherwise have supposed.

Finally, let us clarify the relationship between *only if* and scalar inferential contexts. As we noted above, a speaker saying that nurses can be recruited *only if* they are paid $38 an hour probably means that they won't accept a smaller wage, but does not mean that they will refuse a wage of $50 an hour. This follows from basic scalar inferences: anyone paying more than $38 an hour is *ipso facto* paying $38 an hour.[6] The alternative-based predictive conditional structure is combined with downwards scalar implicature to give the reading that the work will not be done in any space set up by a payment *less* than $38 an hour. A speaker saying that she will go to the early-morning meeting *only if* breakfast will be served is not explicitly or necessarily evoking a scale; since no element such as a quantity expression is present, she may just be comparing breakfast and no-breakfast options. However, in context, she may be saying that

[5] This is not identical to Horn's (1969, 1984) treatment.
[6] Fauconnier 1975a, b; Horn 1984; Kay 1990; Fillmore and Kay 1999.

nothing less than breakfast will do: just tea and coffee will not suffice, while an elaborate brunch would be fine.

Such scalar readings might seem at first to contradict the alternativity and uniqueness semantics of *only*. That is, there is a whole scale of spaces in which the nurses will not accept job offers; and there is potentially a scale of spaces wherein the $38 condition is over-fulfilled, and new hires will happen. But since if more than $38 is paid, it is true that $38 is paid, it is also true that the hires will happen only in a single larger class of spaces: those where $38 is paid (including both those where exactly $38 is paid, and those where more is paid as well).

All the features of *only-if* constructions are shown in Diagram 15, representing (1). First, the presupposed content of Q is represented in the base space. Then, there is a scale of spaces wherein Q could potentially hold. But only one of the spaces is a uniquely sufficient antecedent of Q. All the spaces representing values lower than then P yield ∼Q as a result. At the same time, all the spaces with values higher than P also guarantee Q as a result, because they over-fulfill the required condition; we indicate this in Diagram 15 by adding an extra space boundary around the group of relevant ("$38 and up") spaces.

To conclude the discussion of scalarity, let us note that *even if* is in some sense a converse of *only if*; where *only if* says that Q will fail to hold in all ∼P-spaces, *even if* (as discussed in Chapter 6; see Diagram 9) says that Q will hold "even" in P-spaces, and (by scalar implicature) will hold all the more surely in cases lower than P on the relevant scale. *Only if* is easily coherent with scalar implicature, though its semantics do not conventionally denote scalarity; *even* is explicitly scalar (Kay 1990).[7] *Only* explicitly denotes uniqueness; *even* implicates non-uniqueness of the space where Q holds.

Both *even if* and *only if* make use of the conventional space-building function of *if*, but further place the built space within a broader range of spaces. In the case of *only if*, the semantics of uniqueness may combine with scalar implicature and with construals of alternativity and the predictive use of alternative spaces. In the case of *even if*, the scalar construal added by *even* functions precisely by rejecting a standard predictive alternative-space reading; the adversative space might have been expected to contrast with other possibilities, but does not. Both *only* and *even* thus semantically combine with the basic *If P, Q* conditional construction in an apparently compositional manner, and in possibly compositional ways with other constructions such as the adverb-initial V-S

[7] See also Horn 1969. For relevant work on scalarity, see Fillmore, Kay, and O'Connor 1988; for more work on concessive conditionals, see Fraser 1969, 1971, König 1986.

construction. Furthermore, as we argued in Chapter 6, the apparent incompatibility of *then* with *even if* follows from the compositional semantics of *even if*, and we have made some suggestions as to how the incompatibility of *then* with *only if* is at least partly motivated by the compositional semantics of *only if*.

To complete the discussion, we will now look at one example of embedded usage of *only*, with two *only* constructions nesting inside each other.

(12) To go to Ramsey, further north even than the great mountain of Snaefell, was justified only if you had relatives there, and then only on official festivals like Christmases and birthdays. (JR.C.245)

In (12), the writer has been considering sailing further north along the British coast. The general content of Q is therefore topical in the preceding text. Such a scenario is then jocularly presented as possible in just one, unique space (having relatives there). This still seems to invite too many potential justifications for travel to Ramsey, so the space is deictically referred to again (*then*) to form a new Q, which is consequently further restricted to be advisable in another unique (*only*) space (on official festivals). This "double" cycle of defining an *only* space wherein Q is acceptable actually nests one unique space within another through deictic reference performed by *then*.

Despite the diverse uses of *only-if* conditionals, we conclude that their properties follow quite generally from composition of *if* and *only*, composition of conditional constructions with other independent constructions (such as negative-polar adverb preposing), and regular scalar inferences.

8.2 *If only*: wishes, pragmatic scales, and minimal differences

If only, composed of the same two components as *only if*, is quite different in meaning – not just in scope, but also in degree of compositionality. Assuming that in *if only, if* has scope over *only* by virtue of preceding it, we expect this compositional meaning: "set up a P-space where only X holds (and not also Y or Z)." But life is not so simple. P-clauses which contain *only* in the scope of *if* have a variety of readings. Some of these are due to predictable options in semantic composition. However, there are also at least two important special constructions which have constructionally specific properties of form and meaning, motivated by more general English constructions but not predictable from them: the *if-only* two-clause conditional wish construction and the single-clause *if-only* wish construction. We shall start by examining the basic *if-only* wish construction (the two-clause version) and then examine its motivations by analyzing more compositional uses of *only* in the scope of *if*.

A sentence like (13) commits the speaker to three independent aspects of interpretation. First, it asserts a *conditional relationship* between P and Q ("freezing" the man would enable the speaker to take a good look at him). Next, (13) expresses a *negative epistemic stance* towards P; this stance, expressed by the choice of distanced verb forms, makes sense because it's obviously impossible to "freeze" a person. And finally, the speaker is expressing a strong *preference* for the P, Q space over the ∼P, ∼Q alternative space.

(13) If only I could have frozen him I'd have circled him like a statue in a museum, taking my time, noting his posture and listing the items he carried. (AG.TB.281)

At this point in the novel the speaker of (13) is a look-out in the jungle. He is frightened by the man he is watching but needs to observe him as closely as possible. He therefore strongly wishes for the unrealizable possibility of "freezing" the man in place and taking in all the details. Sentence (13) is clearly not just a conditional statement ("This is what I'd have done if I could have frozen him"), but an (indirect narrative) expression of a wish; we could easily paraphrase it as *I wished I could have frozen* (or *I could freeze*) *him. I would have then circled him like a statue . . .*

Removing the word *only* from (13) reduces it to a more prototypical conditional statement – from which one might make inferences about the speaker's or agent's wishes, but which is no longer an overt expression of a wish. With the initial *if only*, we cannot replace the verbs in (13) with neutral-stance alternative forms (as in *??? If only I can freeze him. I'll circle him like a statue*); without *only*, a neutral-stance version of the conditional is possible. And yet we cannot predict compositionally that *if only* should be restricted to negative-stance wishes. This must therefore be a property of the construction.

The compositional semantics of negative-stance conditionals is of course contextually useful to express a wish, even without *only. If I had a new computer, I'd use newer video software* could well contextually convey the speaker's wish for this situation, even though that is not part of the conventional semantics of the constructions involved (one could continue, *and the newer video software is trash, so I hope I don't have to switch systems*). So it is not surprising that we find negative-stance forms as part of a conditional construction which specifically expresses a wish. As Fillmore (1990a) has remarked, the verb *wish* describes an intentional state which includes negative epistemic stance towards its content (he compares *wish* with *hope*, which takes a neutral stance, and *believe*, which takes a positive one). *Wish* therefore systematically takes distanced verb forms in its complements. For example, compare example (14) with *I hope* (or *believe*)

he knows someone who could tell me about Aguinaldo's life before she was arrested.

(14) "I wish I knew (*know) someone who could tell me about Aguinaldo's life before she was arrested." (SP.HT.156)

But we need a special constructional treatment to deal with the fact that *if only* as a space-builder clearly differs from *only if* in that (like *wish*) it conventionally expresses negative epistemic stance and the speaker's desire state. As mentioned above, these are certainly possible implicatures of using such a construction compositionally; a speaker might be commenting on the sole factor which would enable some result, precisely *because* she is wistfully thinking of how nice it would be if the factor were reversed in the real world, and the result achieved. However, this is not the only compositionally predicted interpretation. And in fact the added constructional meaning is **conventionally** attached to the composite *if only P* structure, regardless of context. The result is that a sentence like (15), though it should be compositionally possible, is odd, while one like (16), with negative epistemic stance, is fine:

(15) #If only I have a brain, I'll be able to think better.

(16) If only I had a brain, I'd be able to think better.

In (17), we can see that the special *if only* wish interpretation does not demand that *if* and *only* be adjacent; preverbal position is also acceptable. However, scope relations must be maintained, and *if* precedes and has scope over *only*.

(17) If I only had a brain, I'd be able to think better.

This construction also necessarily involves interpreting *only* as referring to the entire situation in P, rather than restricting the reference of any of the individual constituents of the P-clause. *Only* must therefore be in clause-initial position following *if*, or a left sister to the verb. The special *if only* wish construction contrasts with compositional use of *if*-conditionals where *only* modifies some constituent of the P-clause. When it focuses on any particular subconstituent, *only* can be compositionally combined with the surrounding material; neither negative epistemic stance nor wistfulness is required. In (18), with neutral epistemic stance, *only* can be interpreted as applying to the phrase *a brain* rather than to the whole proposition about the P-space. Example (18) would not per se express wistfulness or negative epistemic stance; but (19), a parallel sentence with a contiguous *if only* sequence, necessarily involves both of these parameters and is unacceptable with neutral-stance verbs:

(18) If I only have a brain (and not a heart or a stomach), I will be able to think but not to love or eat.
[Speculation about the results of upcoming surgery in a magical world where brains can live independent of hearts and stomachs]

(19) If only I had/*have a brain (and no heart or stomach), I would/*will be able to think but not to love or to eat.

We thus define the *If only P, Q* construction as conventionally conveying the speaker's negative epistemic stance towards P, and also what Fillmore (1990b) has called the speaker's *positive interest* in P (see Chapter 4). Fillmore has noted that the non-predictive use of *will* can convey the ordinarily mentioned senses of volitionality or willingness, as in (20), but may go beyond that to cases where no agent possessed of will is in control of the event described, as in (21). In (21), Fillmore attributes the acceptability of *will* to the speaker's "positive interest," in contrast with the volitional agent's self-construed positive interest (which we could label willingness), as expressed in (20). Willingness is therefore a particular instance of the broader category of positive interest, which we might call agent's positive interest. But the term does not apply to (21), which commits not to the rain's interest, but to the unmentioned speaker's positive interest (or perhaps the positive interest of Chris or some other quoted viewpoint) in the rain's holding off.

(20) If Joe will (= is willing to) help you, you can finish today.

(21) If this rain will (just) hold off, Chris can get the lawn mowed.

Unsurprisingly, then, both *wish* and the *if only* conditional wish construction are compatible with – even sometimes demand – the use of positive-interest *will* (in the distanced form *would*):

(22) #If only the rain stopped by midnight, we could go star-gazing tonight.

(23) If only the rain would stop by midnight, we could go star-gazing tonight.

(24) #I wish this rain stopped by midnight!

(25) I wish this rain would stop by midnight!

Positive interest, as defined by Fillmore, is a super-category of which volitionality is a sub-case. Volitionality is generally understood to be a future-directed modality, as is positive interest. But wishes, unlike wants, are negative in epistemic stance and are not necessarily future-directed. It may be incoherent to say *I want to have gone to the store yesterday*, but it is perfectly coherent to say

I wish I'd gone to the store yesterday. And in non-future-reference "wishing" examples such as *If only I had gone to the store yesterday* or *I wish I had gone to the store yesterday*, no *will* auxiliary is appropriate or required. This prompts us to separate Fillmore's positive interest, with its future orientation, from our new (perhaps more general) category of non-temporally oriented **positive emotional stance** which we observe in *wish* and *if only*. Of course, when positive emotional stance is combined with actual future reference, wishes are remarkably like desires – desires with the added negative epistemic stance supplied by *wish*.

There may be another reason to distinguish positive interest from positive emotional stance. The positive-interest *would* is in fact not the only possible choice in future-oriented *wish*- and *if-only* constructions. In our data, examples of *if-only* and *wish*-constructions with positive-interest *would* are in fact relatively uncommon, despite the frequency of future orientation. As (26)–(33) suggest, *could* is a consistent choice with *wish* when the wisher is the person to whom the positive emotional stance is attributed, and is also the subject of the embedded clause. In *if-only* cases, the positive emotional stance is attributed to the speaker, and thus *could* is often chosen when the subject of the *if-only* clause is in the first person.

In (26)–(33), *would* is used only once. In (33), the speaker (a badly mistreated child) uses *wish* three times. In the first *wish*-clause he suggests that his parents, who are obviously dissatisfied with him, might be "positively interested" in having him disappear from their lives; he uses *would*. In the next clause, he expresses his own wishes, and switches to *could*. In other words, *would* adds the meaning of a third person's positive emotional stance to the clause which describes a situation outside the wisher's control, which makes it consistent with the uses exemplified above by (21), (23), and (25). C*ould*, in turn, seems to be chosen when the wisher expresses a wish about him- or herself. This is pragmatically reasonable; the desire for control of our own circumstances is very strong. While one might naturally wish someone else's undesired states to be otherwise – whether by that person's actions, or by some other means – one is bound to be particularly frustrated by one's *inability* to change one's own circumstances or actions to more desirable ones.

(26) If only I could get the story together I might be able to find a way to make it public. (SP.HT.321)

(27) I knew if I could only rest properly, I would recover more rapidly. (SP.HT.420)

(28) If only I could get a ride on a tow to New Orleans . . . then I could take my boat west into the bayous of the Delta and look for an ending there. (JR.OG.377)

(29) "Where was Ms. Fassler sent?" "I wish I could tell you that, but I can't because I don't know . . ." (SP.HT.314)

(30) On the other hand, if you're really in danger of your life, V.I., I wish I could see you to tell you I'm sorry. (SP.HT.425)

(31) "Oh, how I wish I could stop her mouth . . ." (SS.IA.39)

(32) "I bet sometimes they don't think it's worth it, and wish they could just give up and go home." (SS.IA.101)

(33) "It's like there's something horrible wrong with me, I know they wish I'd disappear on them, I wish I could, I wish I was strong enough to kill myself." (SP.HT.438)

Overall, then, expressions such as *wish* and *if only* mark constructions with positive emotional stance, and constructionally require combination with forms marking negative epistemic stance. Modal verbs such as *will* and *can* add the future orientation (without modals, the orientation can be redirected towards cotemporal or past situations: one can wish or be wistful about the past as well as the future). Modals may also help to specify both the positive emotional stance and its source. The obligatory use of past-tense forms, whether modals in future-oriented cases, or of content verbs otherwise, contributes the negative epistemic stance.

Finally, we have not yet discussed another important characteristic of the *if only* construction. Due to the scalar implicatures of *only*, the compositional *if-only* construction often seems to mean that the contents of the P-clause are not just the sole mental-space alteration needed to motivate Q, but the *minimal change* necessary for Q to be possible. Example (34) represents such a set-up:

(34) If only Max knew Lalla's house better, he would understand. (NS.WB.169)

The interpretation of (34) (see Diagram 16) picks the P-space as "just sufficient" to ensure Q (Max's understanding) but does not preclude the possibility that Q could be predicted from more favorable conditions (e.g., Max's being Lalla's family member). The constructional meaning of *if-only* conditionals thus relies on a combination of negative epistemic stance, positive emotional stance, and the selection of one space from a scale which constitutes the minimal change necessary.

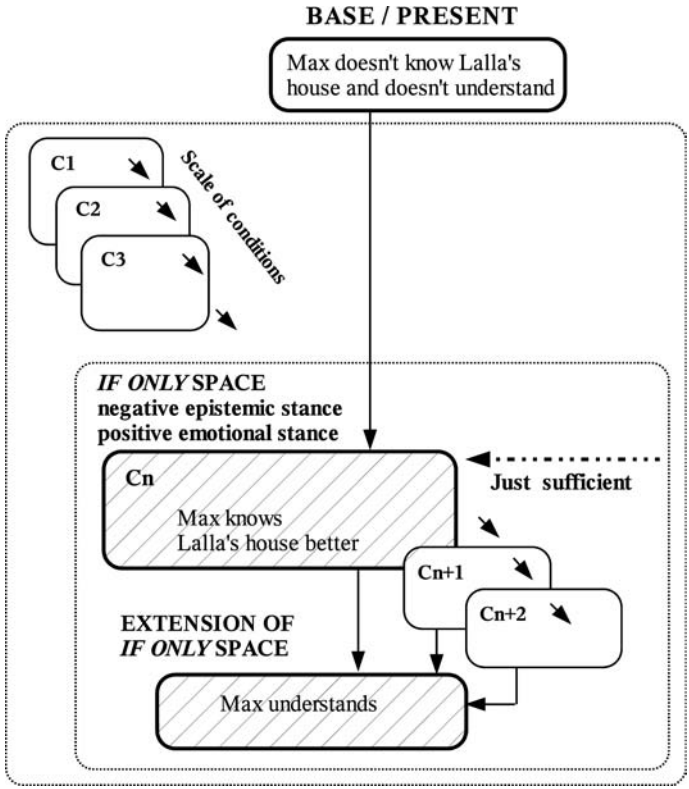

Diagram 16 *Example (34) If only Max knew Lalla's house better, he would understand.*

8.3 Monoclausal *if-only* wishes

Another notable special construction involving *if only* is the single-clause *if-only* wish construction.[8] This should probably not be seen as a conditional but rather as a second, non-conditional dedicated construction, partially motivated by related conditional usages:

(35) If only I could get rid of it, if only I could rest. Oh, if only it was gone. (SC.DR.62)

(36) If only there was a camera that captured smells. (AG.TB.197)

[8] Panther and Thornburg (2003) offer a discussion of *if only*, as well as other monoclausal constructions, in terms of metonymic mapping and inferencing.

In (35), a fantasy-novel character expresses a desire to be rid of a long-carried magical burden. In (36), a man remembering good times wishes he could recreate smells associated with favorite memories. Examples (35)–(36) are not conditional constructions proper; but they certainly share with *if-only* conditionals a conventional connection with negative epistemic stance and positive evaluative stance. Both speakers see the states of affairs described as not merely counterfactual but impossible, yet desirable.

Given the understanding of the *If only P, Q* construction outlined above, we can give a fairly elegant account of the monoclausal usage of *if only P* as a wish-expressing non-conditional form. This use seems easy to derive from conditional uses; for example, we might imagine a speaker of (37) originally being interpreted as uttering a truncated version of (38), leaving the absent Q to the hearer's contextually prompted construction:

(37) If only he would stop drinking!

(38) If only he would stop drinking, his life would improve (or, everything would be better; or, he could write his novel, etc.)

The less specific the intended implicit Q, the less the conveyed meaning will focus on a specific conditional relationship, and the more the construction's function in context will center on the expression of the "wish" aspects of the construction's meaning, such as positive emotional stance and negative epistemic stance toward P. It is easy to imagine a hearer assuming the non-conditional aspects of the semantics of monoclausal *if only P* to be the sole conventional ones. This seems to be incontrovertibly the case for an attested example (39):

(39) If only Alexander would just stay hidden forever, he thought. (AT.AT.265)

Even though in the context of the novel (39) could possibly be interpreted as *If only Alexander would just stay hidden forever, I wouldn't have to feel embarrassed by the presence of this unattractive child, he thought*, (39) as it stands is clearly meant to simply report the speaker's wish (which the reader knows to derive from his embarrassment), rather than have the reader speculate about the specific consequences of the wish being fulfilled. Consequently, we represent (39) in Diagram 17 as having no real conditionality (and, by the same token, as not representing scalar or "minimal change" meanings). This monoclausal construction carries with it the conventional meaning of speaker's positive emotional stance and negative epistemic stance, while having lost a conventional compositional *if*-function of setting up a mental space as a background for

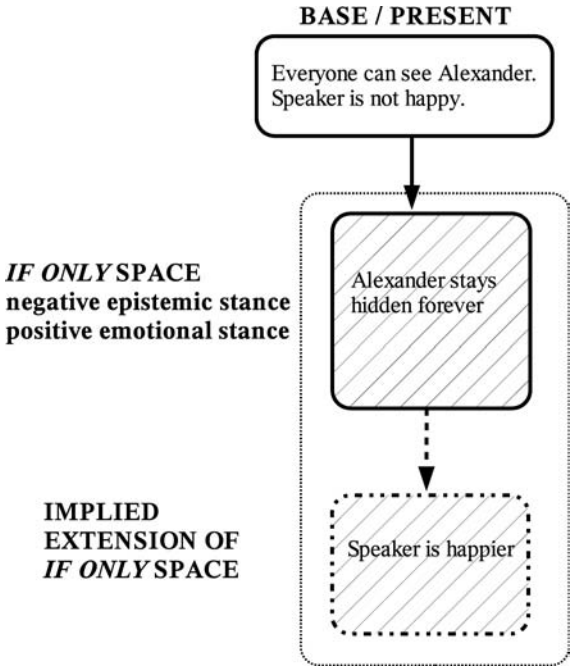

Diagram 17 *Example (39) If only Alexander would just stay hidden forever.*

consideration of some Q. If such a Q could be postulated at all, it would only be implied.

Crucially, in losing some aspects of its historically conventional meaning and gaining others, the monoclausal *if-only* construction has become a performative. The construction's basic conventional semantics and pragmatics consist of a commitment to the conversational record of the speaker's strong desire, and the speaker's belief that the desire is not currently fulfilled.[9] Its semantics is thus very close to that of the verb *wish* when that verb is used performatively, expressing the speaker's own current desire: *Oh, I wish he would stop drinking!* or *I just wish he would stop drinking!* or *How I wish he would stop drinking!* can all be used to convey meanings very similar to that of (37). Indeed, as we might expect from performative constructions, this monoclausal construction is not syntactically embeddable (we found no such examples); whereas compositional conditionals involving *if* and *only* are not so restricted.

[9] This historical shift seems to fit Traugott's (1982, 1989; Traugott and Dasher 2002) claim that semantic change proceeds towards more subjective meaning, that is, towards meaning rooted in the speaker and hearer's interaction rather than in the expressed referential content.

8.4 Tense and epistemic stance in embedded *wish*- and *if-only* clauses

As we have seen, *wish*- and *if-only* sentences demand negative-stance verb forms. At the same time, interestingly enough, they seem to be immune to the added distancing imposed by past perspective. In sentences (40)–(42) the verb *wish* is used in the past tense, but the ensuing clauses which express desires are marked for distance only to the degree characteristic of "wish" constructions, without the added layer of distancing typically required when a sentence is embedded in a past mental space and consequently viewed from past perspective. Sentences (40)–(42), however, use verb forms as if they were considered from the present, rather than past perspective. Thus, the *wish*-clause in (40) is oriented towards the future with respect to the begging, in (41) it is marked with future orientation and positive interest, while in (42) the desired state of being in love is imagined to coincide with the time of the wish. It is remarkable that the perspective of the wish-time is so consistently maintained here, given that there is a clear tendency in English to accept and mark a past perspective when the clause is embedded in a past space, whether expressed by an embedding verb in the past tense or just implied by the course of the narration.

(40) ". . . , he begged me to take him away. I wished I could but I told him . . ." (SP.HT.437)
[The wish was presumably "I wish I could," which one might expect to be reported in the past as *I wished I could have. I wished I could have* seems in fact perfectly grammatical here, but was not used.]

(41) Indeed, he said to me one evening that he almost wished we would never arrive, that the ship would sail on forever. (SS.IA.131)
[Here again, the wish was presumably "I almost wish we would never arrive."]

(42) She wished she were in love, for being helplessly in love awakens one's better self. (SS.IA.77)
[Why not *she wished she had been in love*?][10]

A comparison with the use of the verb *hope* might be helpful here. *I hope we will never arrive* gets reported as *he hoped we would never arrive*, so one might expect added past forms on *would* in [41] as well – but *would never have arrived* seems uninterpretable here in the relevant sense.

In fact, sentences with *if only* display a similar tendency. In (43) and (44), *if-only* sentences are embedded in past mental spaces (*I knew, . . . (was) saying*), but marked with just enough distance to satisfy the negative-epistemic-stance

[10] A form certainly acceptable in nineteenth-century written English with the meaning here conveyed, when embedded in a past context.

requirement of *if only*, without the extra layer of distancing. Example (43) is thus used to wish for rather unlikely opportunities for rest, while (44) confirms the reader's knowledge that the angry person was in fact too sick to be dangerous.

(43) I knew if I could only rest properly, I would recover more rapidly. (SP.HT.420)
[Why not *If I could only have rested properly, I would have recovered more rapidly*? The original wistful expression would have been "If I could only rest properly, I would recover more rapidly."]

(44) He was really angry, poking his finger in my chest and saying what he'd do to me if only he was well enough. (AG.TB.273)
[Why not *what he would have done to me if only he had been well enough*?]

Our next example is even more interesting in how it presents the past situation.

(45) Yes, possibly what he'd planned for the next three days could be squeezed into two instead, if only he were able to get around by tomorrow. (AT.AT.340)

Macon, the main character, is in Paris working on one of his guidebooks and has just been incapacitated by back pain. With all the temporal and epistemic information there, (44) prompts us to construct a scenario such as this: "Yes," (thought Macon,) "possibly what I've planned for the next three days could (in an epistemically distanced desired space) be squeezed into two instead. All that is needed is (the desired but unlikely state of) my being able to get around by tomorrow." The whole fragment is presented from the perspective of Macon's past thoughts about his pre-past plans (as can be seen in the past-perfect form *he'd planned*), but the *if-only* sentence is distanced only to mark negative epistemic stance, not the past perspective as well.

The above examples are not meant to suggest, though, that multiple degrees of temporal distancing are impossible with *wish* or *if only*. Examples (46) and (47) (given above as [13]) both mark a stronger degree of distance, but they both express *present* desires concerning past (and thus irreversible) situations, and not past wishes concerning ensuing situations which could still occur then. The present point of view and the knowledge of the past are the factors which decide upon the choice of the verb form.

(46) How I wish I could have explained to him that he didn't have to be what he thought himself sentenced to be. (SS.IA.130)

(47) If only I could have frozen him I'd have circled him like a statue in a museum, taking my time, noting his posture and listing the items he carried. (AG.TB.281)

8.5 *Then* in *if-only* conditionals

The next question, in examining the relation of *if only* to the broader range of *if*-conditionals, is whether *if only* can be used with *then*. We have found no attested examples with *then*, and if we try to add *then* to many of the sentences quoted above, such as (34) (repeated below as [48]), they do not seem to be acceptable.

(48) *If only Max knew Lalla's house better, then he would understand. (NS.WB.169)

If *then* closely follows *if only*, as in (49) and (50), it is not directly within a single biclausal conditional sentence.

(49) If only the bride had been there: one breast exposed by the wrinkled sheet, the sleepy tangle of her hair smudging her face . . . Then I would have opened the shutters and called, Look! Look out the window! (JR.OG.385)

(50) If only I could get a ride on a tow to New Orleans . . . then I could take my boat west into the bayous of the Delta and look for an ending there. (JR.OG.377)

In both cases the writer starts with an apparently monoclausal *if-only* construction, and then lets the sentence "fade away" (there is no material omitted here), rather than closing with a period. Having given the reader a chance to become fully immersed in the desired space, he finally resumes the story again with *then*. In both cases the reader has been gradually introduced into the P-space. For instance in (49), the writer has described waking up in a hotel room which looks like a honeymooon suite and is wryly contemplating his loneliness as even more acute in these surroundings. The *if-only* clause is indeed a monoclausal construction, enriched with the details of the imagined presence of the bride. But the writer has now created a space so complete, and imagined everything so vividly, that he can go on with the story inside the imagined space. Example (50) is similar. It is not likely that the traveler's wish will be granted, but he chooses to indulge in the fantasy for a bit longer. In both cases *then* does not refer back to the content of the *if-only* clause alone, but to the whole image of a somewhat tacky room, complete with the bride and the groom, or of easy, danger-free travel which makes new options possible.

The generalization seems to be that you do not use *then* to refer back *within* the sentence to the space set up by an *if-only* protasis. But once the conditional space is present, it can be referred back to with *then* in subsequent sentences. One possible reason for the oddity of intrasentential reference with *then* is simply

that the protasis of an *if-only* conditional is not serving only as the background to a predictive conditional. That relationship exists alongside the expression of the wish that the contents of the *if-only* clause could be realized in the base space, and the added assertion that this wished-for state is the *sole* change needed to bring about the situation described in the apodosis. It may be that the *only* qualification on the *if*-space is what conflicts with intrasentential anaphoric reference: when you have just asserted explicitly that P is *all* that is needed to bring about Q, you may sound odd if you overtly profile the fact that Q will happen precisely in the relevant space. With further textual distance, however, you still may need to refer back to that space and are no longer simultaneously profiling the *if*-clause as its sole defining characteristic.

8.6 Scopal relations, polysemy, and compositionality

We have suggested in Chapter 7 that the different ways in which causal and conditional constructions overlap with clause-ordering possibilities and with intonational options in English can be predicted from the meanings of those constructions or of the conjunctions involved. *Unless* and *because* clauses generally follow the main clause, while *if*-clauses more normally precede it, because *if* is a very general space-builder, while *unless* and *because* fill much more specific functions and do not really create background for the main clause. *Only if*, unlike *if* or *because*, is inappropriate with comma intonation between clauses because it cannot be construed as primarily asserting the contents of the clauses, but only the relation between them – which is the normal interpretation of commaless intonation. In the case of the *if-only* construction, on the other hand, we might expect a preference for *if only P, Q* order, and the data confirms that this is indeed the most common pattern. However, the reader has surely noticed examples above which represent different patterns. Thus example (45) represents a typical case of the "comma" intonation, with the desired dimension of the Q-space added as an afterthought. Example (44), on the other hand, instantiates the commaless reversed order, where Q is contextualized in the preceding discourse and consequently P is specified at the end of the sentence.

Only if and *if only* provide a testing ground for the examination of some of the interactions of these parameters. The difference in the ordering of the conjunction and the adverb affects not only the semantic scopal relations between them, but also the possible intonational and word-order patterns which can be used with each of the two combinations. Some of this falls out directly from the more general semantics of *if* and *only*, combining with different syntactic

constructional options; other aspects of it will have to be described as unique conventional constructions.

Only combines compositionally with sentence semantics in different ways depending on its scope within the clause. As we noted in section 8.1, following Brugman (1986),[11] English adverbs such as *only* can be placed either as left sister to the constituent to which they apply, or as a left sister to some higher constituent of which that is a part. An adverb preceding the verb can therefore apply to the verb phrase or to some constituent of the verb phrase (see the readings of [51], as well as of [10]–[11] above), while an adverb preceding another constituent will focus locally on that constituent.

(51) I only took the pie to the party.
  A. I did only one thing, namely take the pie to the party.
  B. I took only one thing to the party, namely the pie.
  C. I took the pie to only one place, namely to the party.

(52) I took only the pie to the party. (Reading B of [51])

(53) I took the pie only to the party. (Reading C of [51])

Compositionally, the possibilities for P-space set-ups should correspond to the possible clausal readings of P-clauses containing *only*. A similar set of contrasts, and reading possibilities, is available with *just* (see Brugman 1984).

Interestingly, normal compositional rules do not allow *only* to have sentential scope in clause-initial position: *Only Sue took the pie to the party* does not mean that the only thing that happened was that Sue took the pie to the party, but that Sue was the only person who did so.[12] So in fact, compositionally predictable readings where *only* has event-scope come from the VP-modifying *only* (*If Sue only took the pie to the party*) rather than from clause-initial *only*, which would be interpreted as modifying the preverbal constituent. This makes it particularly clear that the special *if-only* construction is non-compositional; there is no compositional syntax and semantics which produce it.

A second important factor is the variable interpretation of *only*. As Brugman (1984) has noted, the oldest sense of *only* is something like "sole(ly)" (as in *My cat eats only tuna, nothing else*); this the sense we see in the adjectival use of *only* (*my only friend*). This sense readily gave rise in some contexts to scalar inferences of minimality and deprecation (*What's in that can? Only tuna* – i.e. "solely tuna," and therefore also nothing more or better than tuna). And *only*

[11] See also Ernst 1984, 2002.

[12] Main clauses allow a sentence-initial discourse-particle use of *only* (see Brugman 1984, Brinton 1998) with a range of readings stemming from "it's only that." But this particle does not occur in subordinate clauses, such as P-clauses.

eventually took on these meanings as lexical and conventional.[13] Interestingly, the adverb *just*, though very different in its semantic origins (originally meaning "rightly" or "correctly"), took on an inferentially related sense of "precisely" in English (*You're just the person I need*). From there it developed the contextual scalar inference of "precisely and no more than," from which it was only a step to minimality and deprecation senses (*just tuna* = "precisely tuna, nothing more than tuna, and/or nothing better than tuna").

Within the scope of *if*, therefore, *only* is both polysemous and scopally flexible in ways it cannot be when it is in a fixed position before the subordinating conjunction. Example (54) is a case in point: possible readings are listed below.

(54) If she would only give me fifty dollars, the bill could be paid.
   A. only $50: "solely $50 and nothing more"; "a mere bottom-of-scale $50"
   B. only me: "solely to me" (not to other people)
   C. only give me $50: "the only action needed is giving $50"; "the mere, minimal action of giving $50 is needed"

If only reverses the scopal relations seen in *only if*; and predictably, instead of referring to a unique space established or described by the *if*-clause, it seems instead to refer to a unique characteristic of the P-space established by the *if*-clause. *Only* and *if* can be adjacent to each other or not, so long as *only* is in the P-clause following *if*. The special *if only* wish reading, however, is applicable in precisely those cases where *only* has clausal scope – and it is obligatory when clausal-scope *only* directly follows *if*, in a clause-initial position which is not otherwise acceptable in subordinate clauses. Example (55) therefore must be interpreted as a wish, and is not acceptable with non-distanced verbs:

(55) If only she would give me $50, the bill could be paid.

In *only if, only* has scope over the P-clause, and must therefore precede it. It need not be adjacent to it, however, as (56)–(57) show; and as discussed earlier in this chapter, the *if*-clause may be preposed in an inverted main-clause syntactic structure, as in (58):

(56) I will mow your lawn only if you pay me $20.

(57) I will only mow your lawn if you pay me $20.

(58) Only if you pay me $20 will I mow your lawn.

[13] At the same time, the conjunction *only* displays a range of adversative and exceptive uses (Brinton 1998).

When *only* is sister to a different lower-level constituent of the main clause, rather than to the *if*-clause, predictably it cannot take sentential scope and be interpreted as applicable to the *if*-clause. Neither placement of *only* in (59) yields an *only if* reading.

(59) (Only) I will mow (only) your lawn if you pay me $20.

There is, however, one minor construction, where the P-clause starts with *if only* and Q invariably precedes P in a comma intonation, but *only* does not restrict P as a whole. In (60) and (61), *if-only* clauses are different from the ones we have analyzed before in that they are verbless or non-finite, and thus do not mark any of the crucial conventionalized meanings of the *if-only* construction. In fact, (60) and (61) are not *if-only* constructions in the proper sense. Their *if*s are more appropriately characterized as concessive in meaning, while *only* focuses on the phrase immediately following it (*for one night, to deplore*).[14]

(60) ". . . we thought it better to start from one [island] where technically we were allowed to stay – if only for one night." (AG.TB.52)

(61) If, man or woman, you are someone given to more exotic entertainment, such as art, you can spend time checking out the local facilities, if only to deplore their insufficiency. (SS.IA.117/8)

As in the other cases, then, we can recognize the validity of the sequencing options in (60)–(61) only against the background of other constructional features which compositionally contribute to the overall interpretation.

Like *only, just* can occur both in *if*-clauses of full conditionals, such as (62)–(64), and in monoclausal "conditional" wishes, like (65), involving negative epistemic stance and positive emotional stance.

(62) If he just didn't drink so much, he'd be able to write that novel.

(63) "If I could just get the kinks ironed out," his grandfather said, "I'd have my fortune made." (AT.AT.147)

(64) People told my mother I'd look like Shirley Temple if she would just curl my hair, and so she did . . . (AT.AT.100)

(65) If he just wouldn't drink so much!

Example (65), like its *only* counterpart, is interpreted mainly as a wish, while a mental-spaces treatment of examples (62)–(64) would resemble two-clause *if only* in important ways. In each case we would say that *if* sets up a background space characterized by P, and the adverb tells us that P is not only a sufficient

[14] See Chapter 5 for a discussion of such uses, without *only*.

condition for Q, but a *minimal* one on some scale of possible enabling conditions (see our discussion of [34] above). In (62), presumably there are other imaginable factors which might help the writer get his novel written (solving personal problems, reversing the commercialization of modern publishing, etc.); but stopping drinking is presented as both sufficient, and also as a change which is minimal on some scale. In such cases, what *only* and *just* seem to be doing is saying that there are a wide range of possible characteristics of mental spaces, which would make a novelist's efforts more successful (for example); but that given the base-space conditions, P is the smallest sufficient change we could make in the situation which would enable Q.

That the condition is indeed seen as minimal on a scale can be seen in the odd (or amusing) flavor of a sentence such as (66). Although a good voice is surely a necessary (though perhaps not sufficient) requirement for opera stardom, it's hard to construe having a good voice as a minimal change in this context, since it is the central requirement for the job.

(66) If I only/just had a decent singing voice, I'd be an opera star.

Overall, the various constructional combinations of *if only* and *only if* seem generally quite compositional. We do need to stipulate that the special *if-only* construction marks negative epistemic and positive emotional stance, and is therefore incompatible with forms marking neutral epistemic stance within its scope. However, it is also important to note that in context, "wishing" is one of the most salient and common interpretations of compositional *if . . . only* and even of *if . . . just*, when combined with verb forms marking negative epistemic stance. The conventional constructional information about *if only* is clearly highly motivated, although not predictable and therefore not purely compositional. However, the rest of the semantics and syntax of *if only* does seem to be compositionally predictable.

Only-if constructions are even more compositional. At first glance it seems irregular that *only*, when inside of the main clause, can be part of an "only-if" reading only when the *if*-clause follows the main clause. But this turns out to be part of a general connection between scope and word order.

8.7 Negative epistemic stance and space-builders

Verb forms marking negative epistemic stance are, as we have said, obligatory in certain constructions which themselves semantically involve negative stance towards the content: the verb *wish*, for example. Conditionals, however, do not inherently involve negative stance, and may or may not combine with negative-stance verb forms, as we have seen. What they do involve is an explicit building

of a non-positively-marked space, which is compatible with a negative stance expressed elsewhere.

Indeed, it does seem harder to license negative-stance verb forms without some explicit marking of non-positive stance, as with *and* coordination. We cannot, for example, use (68) as a negative-stance counterpart of (67), although (70) is an acceptable negative-stance counterpart of (69).

(67) You make one mistake and you get fired.

(68) #You made one more mistake and you'd get fired.

(69) If you make one mistake, you'll get fired.

(70) If you made one mistake, you'd get fired.

Example (69) involves an explicit marker of a non-positive-stance space, namely the conditional marker *if*. It is *if* which licenses the possibility for the negative-stance verb forms seen in (70), which is otherwise identical to (69). Example (67) has no explicit space-builder at all, and indeed is not formally conditional, though such a reading is preferred (there are conventional aspects of form involved; see Chapter 9). What is not usually possible is to use a simple *and*-conjunction of clauses to express content with negative epistemic stance. Hence an *and*-conditional is normally barred from using negative-stance verb forms.

As we have seen, some specialized constructions, such as *if only*, require the expression of negative stance. But *if only* is in fact not isolated in this respect. Other constructions license negative-stance forms in English, as can be seen in (71)–(72):[15]

(71) It's high time you went to bed.

(72) I'd rather you came tomorrow, not today.

Both *I'd rather* and *It's high time* bring up alternatives: they contrast the speaker's preference with some other state of affairs (accessible from context), and the long-overdue state of affairs with the current one. Part of the semantics of *high time* is some concept such as *overdue*, entailing an understanding that the relevant state of affairs fails to obtain at times when it should, and part of the semantics of *rather* is a comparison between a preferred and a dispreferred entity or situation. Further, an overdue situation is defined by when it fails to obtain, not by when it actually obtains (you can't tell from the actual presence of some situation whether it is "overdue" or not). And at least a very common

[15] The constructions exemplified in (71) and (72) seem to be acceptable also with neutral-stance forms, especially to younger users of North American dialects.

reason to express a preference is that the less preferred possibility is "on the table" and needs to be guarded against. A neutral statement of preference such as (73) can also be construed this way, as it contrasts the preferred option with the implied one of adding some alternative flavoring or failing to add cinnamon. But the *(woul)d rather* construction[16] indeed demands a negative stance towards the relevant alternative, as we can see in (74) and (75), where (75) in particular can mean only that the speaker thinks the addressee did not add the cinnamon, and the verb forms are exactly those used in a conditional context to refer to such a past negative-stance scenario.

(73) I like it better when you add cinnamon.

(74) I'd rather you added cinnamon. [requires future reference]

(75) I'd rather you'd added cinnamon. [represents regret about a now-lost past option]

As if is also among forms which can license negative-stance forms. This capacity of *as if* seems based on the contribution of *if*, since (as with conditional *if*), negative forms are an option, not a requirement of *as if*. The two options in (76) are different in meaning: *He acts as if he knows all the answers* maintains a neutral stance about the actual knowledge of the person under discussion, while *he acts as if he knew all the answers* presents the speaker as presupposing that he actually does not know the material.

(76) He acts as if he knows/knew all the answers.

Interestingly, a verb like *seems*, which represents a viewpoint (the speaker's viewpoint or perception, by default), does not allow negative-stance forms in *as if* complements (though it would certainly allow past tense with temporal reference).

(77) It seems as if he knows/#knew all the answers.

This shows clearly the importance of context in the choice of verb forms with *as if;* the complementizer itself is more or less neutral in its stance, although clearly not explicitly positive.

Still, monoclausal use of *as if* seems to prefer negative-stance forms, as in *As if it made any difference!* or *As if I cared!*. Even though it would also be possible to say *As if I care!* or *As if it makes any difference!*, the strong use of such exclamations to indicate that the speaker does not care, or that it makes no difference, is appropriately expressed in negative-stance forms.

[16] *had rather* in older British texts.

We may note that the complementizer *like* is simply neutral, and explicitly so: it does not combine with negative-stance forms. Example (78) shows that in a context which allows a negative-stance form with *as if, like* accepts only a neutral verb form. This seems to be true even in exclamations such as (79).

(78) He acts like he knows/#knew all the answers.

(79) Like I care!

Finally, *as though* seems to be remarkably parallel to *as if*, in contrast with *like*. Example (80) shows the same variation permissible in (76), and substitution of *as though* in the rest of the cited *as if* examples does not seem to change their acceptability.

(80) He acts as though he knows/knew all the answers.

In sum, there are space-builders such as *if*, *as if*, and *as though*, which license negative-stance forms when the right meaning is present, because they explicitly set up non-positive-stance spaces. There are other space-builders, such as *wish* and *it's high time*, which are semantically negative in stance, and therefore require negative-stance forms in their complements. And there are constructions, such as the English *if-only* construction, which are explicitly negative-stance in meaning, and whose compositional semantics partially but incompletely motivates that aspect of the semantics of the whole construction. Any construction which is explicitly negative-stance in its semantics will require correspondingly negative-stance verb forms, while a neutral construction may be coherent with such forms, and a positive-stance construction will be actively inconsistent with them.

8.8 The *if that NEG* construction

The special monoclausal *if-only* wish construction, though compositional only to some degree, is not the only construction with *if* which does not seem to express conditional meaning. The speaker of (81) means something like, "What an exceptionally weird thing my new microwave is!" English has a special *if that NEG* construction, meaning something like "Wow, how saliently and obviously [the negated clause] is true!"

(81) "Look at my new microwave," Mrs. Dugan said. "If that's not just the weirdest durn thing I ever laid eyes on." (AT.AT.221)

It's not hard to conjecture a history for this construction from discourse uses of conditionals; a reader is tempted to supply a Q-clause such as "(then) I don't know what is weirder," or possibly a structure such as "I'll eat my hat" – an instance of the standard tactic of strongly refuting a premise-space by linking it to an impossible conclusion.

Obviously, not every formal instance of *If that NEG* gets this special interpretation. One can imagine a sequence like *Well, if that's not a weird model, then you should see the new one over on the other side of the store*. One can even imagine such a P-clause left trailing, expressing the speaker's uncertainty as to what to do in the absence of the desired "weird model" – this would formally resemble the *if that NEG* construction, but would carry standard compositional semantics rather than the special constructional meaning.

First of all, the exclamatory *if that NEG* construction requires a negation (unlike compositional conditional constructions); the speaker of (82) could not have commented on the (in)appropriateness of the relevant material as a summation of marriage's ills by using a form such as *If that (ever) sums up every single thing that's wrong with being married*. Secondly, the construction necessarily expresses the construal of the described situation as being at the far end of some pragmatic scale. As can be seen in (81)–(83), possible mechanisms for scalar set-up include superlatives (*weirdest*, *most suspicious*) and end-of-scale markers (*every single*).

(82) "By God, if that doesn't sum up every single thing that's wrong with being married . . ." (AT.AT.321)
[i.e., "Wow, that really sums up every single thing that's wrong with being married!"]

(83) "Just look at the brand name: Pschitt. If that's not the most suspicious sounding . . . and there's another kind called Yukkie . . ." (AT.AT.336)
[An American discusses French soft drink names: she means, "Wow, that is far and away the most suspicious-sounding soft-drink name I've run into."]

And despite the sequences with ellipses in the written (82)–(83), the *if that NEG* construction is not a "trail-off" *if*-clause; as (81) clearly shows, it is comfortable with complete-sentence intonation (with the wider pitch range of an exclamation, but with the final fall of a statement rather than an incomplete conditional).

Note that the speaker of (83) freely coordinates *if that's not the most suspicious sounding* with the statement *and there's another kind called Yukkie*. This coordination is unproblematic, since the reading is something like "That sure is a suspicious sounding name – and there's this other beverage called Yukkie,

which is another example of the same thing." Without the exclamatory constructional reading, it would be much harder to conjoin a freestanding *if*-clause with a statement. (It is particularly interesting that the exclamation does not even have to be a complete clause to be interpreted successfully: one assumes that something like "beverage name" is missing after *suspicious-sounding*, to be supplied from context.)[17]

This construction must have developed from the productive exploitation of *if*-clauses in contexts where the apodosis was extremely vague or contextually accessible. Fillmore and Kay (1999) and Johnson (1996, 1999a, b) have given us insight into the ways in which particular salient contextual inferences can be incorporated into the conventional meaning of a construction, or of a particular subclass of instances of a construction (thus bringing a new construction into being). Fillmore and Kay argue that the English *What is X doing Y?* construction must have developed from the frequent and salient use of questions about what someone is doing as "challenges" about the unexpected presence of the agent in a particular situation or location. If we see an East-Coast friend unexpectedly walking along a Berkeley street, we may say *What are you doing in Berkeley?* not as a challenge, but as an informational question about the activities which might have motivated their presence there. However, if we find someone in a place where they are not normally supposed to be, a *What are you doing here?* question might offer them an opportunity to produce a justification for their presence. And finally, a parent finding a four-year-old in the kitchen after bedtime, with one hand in the cookie jar, might say *What are you doing in the kitchen after bedtime?* purely as a challenge, since the question must be rhetorical: the parent knows what the child is doing, and does not think there is a justification for the situation. The end result is a special WXDY construction dedicated to remarking on non-canonical situations.

The *If that NEG* construction presumably followed a similar course, going from being a contextually completed conditional to being a non-conditional exclamation via the use of rather loosely contextually completed conditional *if*-clauses as parts of exclamations about the contents of the *if*-clause. This closely parallels the kind of development seen in the *if-only* construction, which also still formally overlaps with the compositional uses of *if only* from which it developed but has unique formal and functional characteristics which need to be attributed to the special construction as a whole.

[17] See discussion of related exclamative constructions in Lakoff 1987 (Case Study 3).

8.9 Positive-stance *if only*?

The *if-only* constructions we discussed above were characterized as conventionally expressing negative epistemic stance. The description we have given thus far covers all the written *if-only* data we had seen until informed by a Google search for on-line usage.[18] To our surprise, we found cases of *if only* – conditional and monoclausal – with positive-stance verb forms. Some uses were clearly samples of non-standard English, and we will not discuss them here. Other instances, however, clearly indicate positive interest or emotional stance, and though not common at all, seem to be readily available to a number of speakers. At the same time, we heard informal comments from younger users of North American English (mainly our graduate students), suggesting a possibility of using *if-only* constructions with neutral-stance verb forms instead of negative-stance ones, as in *If only I can get this done on time!* We believe that the usage is still marginal in standard English, but it poses some interesting questions about the categories of neutral and negative stance as such.

Our on-line search suggests that positive-stance forms are used in rather specific contexts. One group of examples use positive-interest *will* in an *if-only* clause following a description of a highly desirable state of affairs which has so far remained beyond the writer's/speaker's reach. It is clear that there is no assumption of negative epistemic stance towards the desired state, because new, yet unexplored, options are considered.

(84) . . . – all remind me that the best gifts in life are free. They are mine for the taking if only I will notice them. (http://www.bestyears.com/walking.html)

(85) I can change the world if only I will claim the gift that has been laid before me. (http://www.sevenmagazine.org/april02/journal.html)

(86) I realized that I really do know what I am supposed to be doing. I do know how to be happy and fulfilled – if only I will listen to myself, for once. (http://www.utexas.edu/inside_ut/journals/kristin/kristin4.html)

In our discussion above of examples (26)–(33) we noted the rarity of *would* in sentences where the situation is in the speaker's control; it seemed that *could* was a more appropriate option then. In (84)–(86), the speakers are signaling their newly recognized readiness to take control now that they understand the situation better. The use of *will* in these contexts focuses on the "positive-interest" part, while not attributing the control to the speaker until she has a chance to test her new resolve.

[18] Thanks to Karen Sullivan, who got us going on this search.

The second group of examples comes from texts giving general advice or otherwise referring to generic situations.

(87) Coffee is ideal for a diet. Coffee is good for those people who are on a diet if only they do not spoil the beverage with sugar or cream . . . . (http://www.milagrocoffee.com/coffee/five/)

(88) But Britain and the US are apparently alike in that people can get away with all kinds of criminal activity if only they do it through a lawsuit. . . . (http://www.termlimits.org/Press/Common_Sense/cs812.html)

(89) Salesmen . . . will all be explaining that it's all going to be OK if only they go for this. (http://www.termlimits.org/Press/Common_Sense/cs812.html)

Example (87) describes general benefits of coffee drinking, from the viewpoint of a coffee company. It would have been surprising if the company expressed negative stance towards an activity which they are advertising. Examples (88) and (89) come from a text explaining how illegal activity is typically sold as perfectly legal. "Tricks of the trade" are thus presented as generic descriptions. Negative epistemic stance is not involved: even though such activities are not desired, they need to be seen as objectively existing patterns.

Finally, there seems to be a consistent usage of the monoclausal construction with *can*, as in (90)–(92):

(90) The tunnel is definitely getting wider, and the air is fresher, not as stifling as it was. If only I can keep going. (http://users.tinyonline.co.uk/gswithenbank/escape.htm)

(91) If only time can pass faster, If only I can walk faster, If only someone could just shut me in a time capsule, And return me to the green grass Earth, yeah . . . (http://www.lit.org/view/8309)

(92) But sometimes people think, if only I can make a certain amount of money or if only I can get this promotion or if only I can get this acknowledgement – whatever it happens to be – then I'll be okay. Those motivations are what cause stress, which in turn can lead to illness. (Dean Ornish, MD – Bill Moyers in "Healing and the Mind" [http://www.frontier.net/~stevenk/work.htm])

All the monoclausal *if-only* constructions here use *can*, in agreement with the generalizations about the use of *will* and *can* in wishes which we advocated above. Also, they are all clearly intended to express wishes, rather than conditional meanings. They are thus clearly representative of a very similar type of construction to the distanced *if-only* constructions above. However, the absence of negative stance seems to present the wished-for state as something hoped for, rather than merely desired, and, in context, sounds appropriate. In fact, the third

if only clause in (91) shifts to negative stance. There may be two explanations here. One, the writer may be switching into a form which is more common and natural, or, two, the actual situation desired (being shut in a time capsule) is too improbable to be hoped for.

Although *can* and *will* are clearly common in monoclausal *if-only* constructions, the neutral stance use seems to be also possible with lexical verbs (e.g., *If only I don't fail this exam!, If only we get a Democrat in the White House!*), especially, as we noted earlier, in dialects spoken by younger users of English. The interpretation seems to resemble that of (90)–(92), where the state of affairs wished for is not merely desired, but more positively hoped for. This phenomenon raises an interesting question about the nature of the change in progress. Does it suggest that negative stance is becoming less salient in monoclausal constructions (recall some speakers' reservations about the necessity of marking negative stance in *'d rather* and *high time* constructions)? Or, on the contrary, that the speakers feel the need to distinguish more saliently between situations which call for negative-stance marking and those that do not? Given that the distinction is readily available in ordinary two-clause *if*-constructions, the latter may turn out to be the more likely alternative. More data should be gathered in the future to help us answer such questions.

It seemed so far that quite colloquial usage was the main source of positive- (or neutral-) stance examples of *if-only* constructions. However, we have also found an example of a literary text with non-distanced monoclausal *if only*:

(93) Not I, not I, but the wind that blows through me!
A fine wind blowing the new direction of Time.
If only I let it bear me, carry me, if only it carry me!
If only I am sensitive, subtle, oh, delicate, a winged gift! (D. H. Lawrence, *Song of a Man Who Has Come Through)*

These three *if-only* constructions lack modals (though note the subjunctive *it carry me* in line 3), and may be interpreted as either future or generic in time reference. They present the poetic persona as happily moved to another realm altogether – a realm which would be experienced as blissful, but cannot be literally hoped for or even viewed in any relationship to the real world. The use of verbs in these lines (there are in fact two more of the same kind in the next stanza) amends the usual interpretation of *if only* to remove it from the usual context of situations that are real enough to be desired and evaluated as realizable or not.

To conclude, the positive-stance examples of *if only* which are possible in some dialects give us a chance to see even more ways in which verb forms can compositionally contribute to the constructions' interpretation. We think the

types of uses presented here are not random deviations from the model outlined earlier. They are sub-constructions of a more widely known type, sharing some of its features, but not all. Indeed, they build on both the conventional and the compositional aspects of standard *if-only* constructions to convey different models of "wishful thinking."

8.10 Conclusions

Issues such as the order of clauses, composition with other constructions, and the possibility of polysemy and conventionalized implicature are relevant to a broad range of English subordination and coordination constructions, as well as to the particular subclasses of conditionals discussed in this chapter. As we used the interaction of *then* and *even* with conditionals to learn about the semantics of conditional constructions in and of themselves, we have here used interaction with *only* to test for the quirks specific to conditional *if P,Q* constructions, and those better ascribed to other constructions or to context.

One salient observation about the tightly interwoven family of *if*-constructions examined here is that tightness itself. A learner might be puzzled initially by the discovery that the *only-if* construction carries as conventional meaning something which is part of the implicature structure commonly tied to the compositional combination *only . . . if*. But the learner would have other advantages from this arrangement: she would not have to learn anew everything about the meaning of *only if*, and she might use her compositional knowledge of *only . . . if* to motivate the connection in memory between *only if* and its meaning. As comparison with the *if that NEG* construction shows, there are plenty of other such cases in the rich, broad family of English conditionals. In general, much of our constructional knowledge appears to be of this nature, especially at levels above the lexical one. Outside of the lexicon, we rarely learn brand-new or unrelated connections between form and meaning but largely rely on overlap and motivated connections.[19]

[19] On such overlap relations between constructions, see Lakoff 1987; Brugman 1988; Goldberg 1995; Israel 1996; C. Johnson 1996, 1999a, b; Tomasello 2000, 2003.

9 *Coordinate constructions and conditional meaning*

> Katy: If a guy does that then they're considered a pimp cause they get all these girls. A girl does that and they're considered a slut.
> (http://www.pbs.org/wgbh/pages/frontline/shows/georgia/video/tpimps.html)

9.1 *And*-conjuncts as predictive conditionals

The previous chapters have laid out an analysis of the traditionally central class of conditional constructions in English, namely *If P, Q* conditionals. How much does this help us with the broader range of conditional constructions? Since each construction is motivated by a variety of factors, and in some cases also by other non-conditional constructions, no treatment of *If P, Q* conditionals is likely to describe enough facts to explain exhaustively how other constructions serve conditional functions in English. However, much of the analysis presented so far does extend readily to the larger family of conditional and non-conditional constructions which can be used to convey conditional meaning. The analysis further provides regular motivation both for the licensing of non-conditional constructions in conditional uses, and for observed constraints on such licensing.

To begin with, a mental-spaces approach gives a relatively straightforward explanation for some of the common conditional uses of non-conditional forms. Our analysis would predict that conditional constructions' functions should overlap with the contextually conveyed meanings of other space-building constructions, when alternative-based prediction or other aspects of conditional meanings are provided by the lexical semantics or the context. Conditional uses of *and* and *or* conjunction such as those in (1)–(3) (italics ours) support this hypothesis:

(1) "We get rid of Coyne *and* we're clear," said Hayden eagerly. (WGT.VH.171)
[Criminal discussing killing a lawyer who has figured out his money-laundering scheme.]

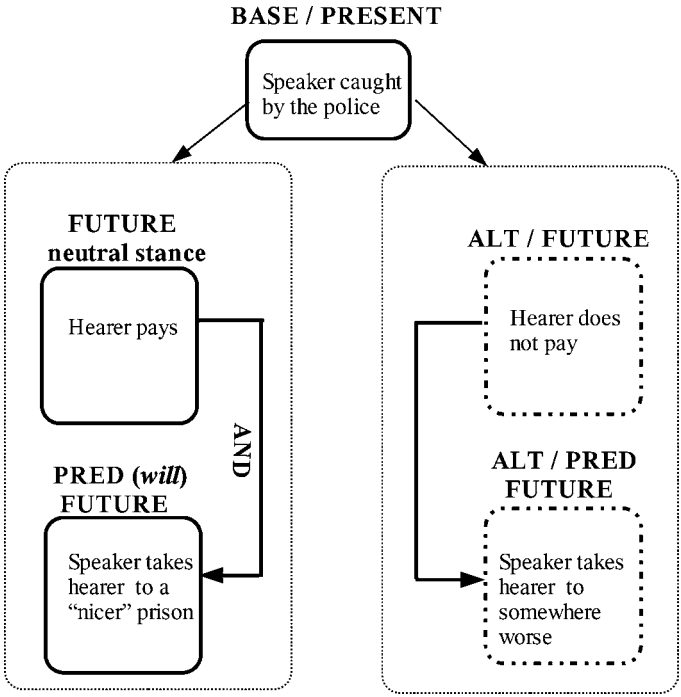

Diagram 18 *Example (3) You pay us a trillion bucks and we'll take you to Hoosegow.*

(2) "You come to me in two years' time *and* I'll tell you if I was right." (NS.WB.166)

(3) "You pay us a trillion bucks *and* we'll take you to a Hoosegow. Then you can bargain with them." (NS.SC.50)
[Cops offering to take a teenager to a more pleasant jail in return for a bribe.]

Examples (1)–(3) resemble *if*-conditionals formally as well as in their space-building functions (see Diagram 18, representing the future predictive *and* set-up and its alternative). Examples (2) and (3) show simple present forms with future reference in the first (i.e., P) clause, which sets up the background to the prediction, and *will* future in the second (i.e., Q) conjunct, which expresses the conditionally made prediction. Sentence (1) shows another recognized possible sequence of conditional predictive verb forms [see Chapter 4], the simple present P background followed by a "reset" present Q prediction clause.

Crucially, any of these examples would be acceptable if *and* were removed and *if* added before P:

(4) If we get rid of Coyne, we're clear.

(5) If you come to me in two years' time, I'll tell you if I was right.

(6) If you pay us a trillion bucks, we'll take you to a Hoosegow.

It is clear, then, that the same predictive verb forms which occur in *if*- and *when*-constructions can fulfill the same function in *and*-conjuncts. A major difference, however, is that *if* and *when* attach to a particular clause and mark that clause as the one being built up as a background to the other. Although information structure would be different, the conditional relationship is the same in *If P, Q* and *Q, if P*. Thus, *If we get rid of Coyne we're clear* and *We're clear if we get rid of Coyne* are both acceptable conditional forms. The coordinate conjunction *and* does not have space set-up in its conventional semantics, and does not belong to one conjunct, but simply marks coexistence of two conjoined entities in one space. Unsurprisingly, coordinate conditionals do not allow for such reversal of clause order with preservation of conditional relationships (Haiman 1986, Verstraete in press). *We get rid of Coyne and we're clear* presents killing Coyne as the condition for getting clear of the law, but *We're clear and we get rid of Coyne*, if interpreted conditionally, would mean that getting clear is a precondition for getting rid of Coyne.

So clause order of *and*-conjuncts performs the function performed by explicit causal and conditional conjunctions in non-coordinate conditional forms. The result is a clear contrast (see R. Lakoff 1971) between "symmetric" uses of *and* such as those in (7–8), and asymmetric uses such as those in (1–3).

(7) She's typing on the computer, and she's eating lunch.

(8) She's eating lunch, and she's typing on the computer.

Examples (7) and (8) both describe the same situation, where the two clauses represent coexisting states of affairs. This "symmetric" *and* is perhaps the farthest from conditional uses of *P and Q*, since conditional uses of *and*-constructions crucially depend on the order of the two clauses being construed as iconic for the temporal and/or causal relationship between the contents of the clauses (see Haiman 1978, 1980; Sweetser 1990; Dancygier 1990, 1998). Conditional interpretation is impossible for (1)–(3) with reversed clause order, since we would then be trying to construe the conditional relationships as reversed. But no conditional interpretation seems accessible for either (7) or

(8), since neither order of these clauses is readily construable as representing a relationship based on causal sequence.

In asymmetric uses of *and*-conjunction, on the other hand, the sequence of clauses is appropriately iconically construed as representing temporal and/or causal sequence (see Horn 1985; Sweetser 1990; Dancygier 1990,1998: 188–92). Where, as in (4), the interlocutors are already closely involved in trying to understand what factors will enable someone to "get in the clear," the contents of the alternative spaces ("getting in the clear" and failing to do so) are saliently present. Under such circumstances, it seems easy to interpret a *P and Q* structure as conveying *If P, Q. We get rid of Coyne* is thus seen not only as the causal and temporal precursor to the following *we're in the clear*, but also as the builder of the imagined space wherein the speaker will be in the clear – while in the other alternative space he will not kill Coyne and will not be in the clear. The predictive functions filled by this kind of coordinate construction are often equivalent in context to those filled by an explicitly marked conditional or causal construction.

Not all conditionally interpreted *and*-clauses, however, show forms identical to possible P and Q clauses of *if*-conditionals. And not all P and Q clauses of predictive *if*-constructions would be acceptable if presented as *P and Q*. It is particularly notable that so far in our searching of literary corpora, we found not a single instance of a third-person P-clause in an *and*-conditional. We acknowledge that such instances are not easy to search for specifically. But examples like Davies' (9) must at least be extremely infrequent, while second-person and first-person inclusive examples like (1)–(3) are not hard to find by informal search methods even in written English, once you locate passages intended to represent informal speech.

(9) He makes one mistake and he'll be out. (Davies 1986)

Third-person *if*-conditionals such as *If he makes one mistake, he'll be out* are, however, frequent and unremarkable, alongside first- and second-person *if*-conditionals.

An on-line search for informal usage,[1] however, does reveal third-person *and*-conditionals. On the other hand, the vast majority of these examples involve (i) the writer's positive interest and/or (ii) advice, encouragement or threats directed at an addressee, even if indirectly reported in the third person.

(10) . . . there is a very realistic and beneficial way Ms. Macapagal can run the country, and that is by not running again . . . She does that and she

[1] Thanks to Karen Sullivan and participants in the Fall 2003 Linguistics 290B class at UC-Berkeley.

can prosecute Erap without fear . . . She does that and she can unite the diverse factions pulling this country apart, being herself above the fray . . . (http://www.inq7.net/opi/2002/jul/17/opi_csdequiros-1.html)
[The writer is essentially addressing Ms. Macapagal – albeit in formally third-person editorial style – and encouraging her to do as proposed. The writer's own positive interest is strongly engaged.]

(11) I pray every night that Stoudemire [a basketball player] a) stays healthy, b) stays off the coke and c) stays away from the Ho-Hos. He does that, and we are looking at a lot of nice SportsCenter clips. (http://www.sccs.swarthmore.edu/org/phoenix/2003/2003-02-13/sports/12655.php)
[The writer has strong positive interest, assumes that readers will too, and may also be indirectly addressing and encouraging Stoudemire.]

(12) Katy: If a guy does that then they're considered a pimp cause they get all these girls. A girl does that and they're considered a slut. (http://www.pbs.org/wgbh/pages/frontline/shows/georgia/video/tpimps. html)
[The writer's involvement is strong; and her generic third-person *a girl* clearly includes herself; interestingly she uses an *if*-conditional, not an *and*-form, in talking about generic guys.]

Our conclusion about this class of *and*-conditionals, then, is that there is no formal grammatical restriction on third-person forms with them. The imbalance in favor of first- and second-person examples stems from fact that *and*-conditionals are not as general in function as *if*-conditionals; they specifically involve the speaker's and the hearer's interest. Sports columns and political editorials, whether in the professional press or in personal internet postings, are engaged in constant sideways third-person dialogue – with both potential readers (fans and voters) and the major subjects of the writing (sports figures and politicians) as the addressees. They therefore offer a stylistic niche which is uniquely friendly to the production of formally third-person *and*-conditionals, given the right register. The switch from *if* to *and* in (12), as the writer switches from third-person generic reference which does not include her to one which does, is particularly telling: the generalization is not about pronouns but about who the conditional applies to.

As a final example of conditional use of clause-connecting *and*, consider (13):

(13) All we gotta do is win this one more game, and the championship is ours!
(Final line of the "fight song" for Charlie Brown's Very Little League team in the musical *You're a Good Man, Charlie Brown*.)

The song line conveys the conditional claim that if the team wins the current game, they will win the championship. There are several notable features of this

example. First, the *first-person* plural subject of the P-clause fits our observed generalization that *and*-conditionals are not usually third-person. Furthermore, in context, this song is building team spirit, so it has a *second-person* directive role of admonishing and encouraging the team.

Let us further note the *minimal-unit* semantics of the P-clause contents. We shall return below to this issue, as it relates to imperative *and*-conditionals. But here the inference attendant on minimal-unit semantics is exploited to suggest encouragement, as the song is emphasizing the minimal amount of effort required: *all* they have to do is win this *one* more game.

And finally, the verb forms in (13) are of particular interest. *All we gotta do is win this one more game* is a modal statement about obligation and also an instance of a conventional English construction with this function (*All X has to/has gotta do is VP*). How do the present-tense forms of *gotta* and *is* fit into the constructions we have examined? *Gotta*, in the P-clause of a non-distanced predictive conditional, is expected to be present tense in form because it is the background to a prediction. It should also be future in reference; and since obligation is a future-directed modality, it is easy to call up such a reading. The present *is*, in the Q-clause, represents a classic example of the present tense used to express present planning or scheduling of a future event (see Chapter 4). The team is so confident that they are not just expressing the minimal conditions sufficient to ensure winning the championship, they are *planning* to be champions.

9.2 Imperative *and*-conditionals

In added confirmation of the connection between *and*-conditionals and the participation or interest of speech-exchange participants, there is a significant class of conditionally interpreted *and*-constructions which use imperative forms in the P-clause, a form which simply can't be used in the P-clause of an *if*-conditional. Examples (14)–(16) are attested predictives of this kind.[2]

(14) "Throw that ink pot at me, Miss Kate, *and* you'll go supperless to bed," Sarah would have said, wholly unimpressed by defiance. (GH.CK.145)

(15) "Make the right choice *and* I'll see you through any trouble that may ensue." (CSF.HH. 14)
[Admiral ensuring captain of his support if the captain can show he was using good judgment.]

[2] For work on "pseudo-imperatives" and conditionals, see Clark 1989; for related work on conveying threats and promises via conditionals, see Fillenbaum 1976, 1986.

(16) ". . . think slow *and* you'll make out okay . . . " (JR.OG.45)
[Directions on how to manage a small boat on the Mississippi]

Some of these paratactic conditionals (see Haiman 1983) are negative threats or deterrents, like (14); others are positive suggestions like (15–16). Sweetser (1990) treats cases such as (14)–(16) as involving a suggestion to do P, followed by an assertion that in the space where P happens, Q will hold. This is a pragmatic use of the basic additive sense of *and*; we might now rephrase that analysis by saying that the speaker *adds* the content of Q to the mental space set up by P. The addition of Q may make the P-space more, or less, attractive to a potential audience. The addressee is thus encouraged to choose the P, Q option by an utterance such as *Get me a cup of coffee and I'll love you forever* (assuming the speaker's love to be positively valued). *Take one more step and I'll shoot* would similarly suggest option P with its attendant contingency Q, but with the opposite pragmatic result: the addressee will notice the negative consequences of following the suggestion and choose an alternative course of action.

Imperatives are themselves known space-builders, setting up a space of future actions by the addressee. As such they are naturally suited for use in P-clauses, when the P proposition of a conditional relationship involves a second-person actor. (Modals have of course also been recognized as interacting with conditional interpretation.)[3]

Haiman (1986) notes that markers of "potentiality" also provide strong assistance to a conditional reading of paratactic constructions; in (17), there is no claim that the addressee will touch alcohol, but the potential for this to happen is strongly evoked by the use of the scalar "warning" marker *so much as*:

(17) You so much as touch alcohol and your boss will fire you. (Haiman 1986)

Dancygier (1998: 188–92) notes that in conditional uses of *Imperative-P and Q*, there are often other markers of potentiality besides the imperative itself, including such scalar markers as *just*, *so much as*, *only* and the scalar-implicative *one*. *Take one more step and I'll shoot* is intended to strongly invite the scalar inference that any potential greater number of steps would have the same result. We would therefore want to say that in examples such as these, the imperative sets up a potential space, which serves as a background to the prediction of Q.

[3] Sweetser 1990: Chapter 4, Dancygier 1993, 1998, and others have noted that epistemic conditionals are frequently marked with markers of epistemic modality, which explicitly cue epistemic rather than content-level interpretation of the conditional relationship. (See Chapter 5 of this volume for further comments.)

In positive "encouragement" cases, the imperative can both be given a direct interpretation of directiveness and simultaneously serve as the builder of the background space for Q. The order of clauses is crucial again. *Get me a cup of coffee and I'll love you forever* cannot be rephrased with the opposite clause order and the same meaning. As in (1)–(3), the conditional relation between P and Q depends on the order of the constituents, which allows one clause to be seen as presenting a causally and temporally prior condition which could influence the occurrence of the situation described in the other – and thus allows for predictive construal of the relationship between them, with concomitant construction of alternative spaces *P, Q* and ∼*P,* ∼*Q*.

Because of the considerable overlap between imperative form and simple present form in the second person in English, examples of paratactic conditional usage with an overt second-person subject in P are often formally ambiguous between an imperative reading and a descriptive reading involving a prediction-background use of the simple present tense in P (see Chapter 2). Interestingly, there is some evidence that both compositional routes can give license to this particular form. Haiman's *so much as* in (17) is not a form readily acceptable with true imperatives (at least positive ones) but occurs comfortably with cases like (17) or (18b) where a second-person subject is present. This suggests that (17) and (18b) are at least not solely licensed as imperatives with subject pronouns.

(18) Person A: Can't I come over and sit down next to you while we talk?
Person B:
(a) #So much as take another step and I'll shoot.
(b) You so much as take another step and I'll shoot.

Note that while a positive simple imperative such as (20) does not allow the scalar *so much as*, a negative imperative such as (19) does.

(19) Don't (so much as) take another step!

(20) #* So much as take another step!

This contrast is presumably related to the semantics of negation: it is known that the semantics of "minimal unithood" is pragmatically exploited specifically in negative and negative-polar environments to implicate a full scale: taking one step tells us nothing about how many more steps were taken, but not taking one step tells us that no higher number of steps were taken.[4]

So much as, in its current constructional use, seems to require composition with the semantics of minimal units and negative polarity. However, this is not a

[4] See Meillet 1958[1912]; Horn 1984, 1985, 1989; Israel 1998 on the relationship between scalar implicature and negative polarity.

full explanation. The potentially negative pragmatics of (17) and (18b) license the use of *so much as*. But in (18a) the same pragmatics of deterrence are less successful in licensing it in a subjectless (imperative-looking) formally positive context than in an otherwise identical formally positive context with an overt subject. All of this suggests that examples such as (18a) are indeed not licensed by English grammar solely as imperatives.

On the other hand, with the verb *be*, where indicative and imperative are formally distinct, these examples clearly demand an imperative verb form with or without the second-person pronoun:

(21) (Just) be good, and you will be happy.

(22) You (just) be (*are) good, and you will be happy.

In contemporary English (21)–(22) are formally imperative. This does not mean we need to choose a single analysis of sentences like (18b); they could be licensed by both imperative and indicative constructions. Example (22) does seem clear evidence that the imperative construction is involved.

We have now examined two classes of *P and Q* constructions with conditional interpretations. The first class, involving two full clauses with regular predictive conditional verb sequences, is differentiated from "symmetric" additive *and*-coordination by (i) the relevant predictive patterns of verb forms and (ii) the asymmetric clause order *P and Q*, which is motivated both by topic-comment structure and by iconic representation of temporal and causal relations.[5] This class is most frequently manifested with a first- or second-person, rather than third-person, subject of the P-clause; when third-person subjects do occur, they normally have some accessible non-third-person positive interest in context. The second class has the form of an imperative P-clause (with or without overt second-person pronominal subject), followed by *and*, then a Q-clause in some appropriate verb form to represent the conditional prediction. Both of these classes can express some of the same meanings expressed by *If P, Q* predictive conditionals – but only some of them, and most obviously they eschew cases involving third-person P-clause subjects.

These constructions provide important insight into relevant aspects of English grammar. First, they give added evidence for the productivity of the predictive verb-form patterns across forms with conditional (as well as temporal) functions. And second, they are striking evidence of the flexibility of interclausal relations such as coordination and subordination. In many ways, "asymmetric"

[5] Haiman 1978, 1980, 1983, 1986.

coordinates behave more like subordination constructions.[6] And finally, they show the flexibility of formal grammatical categorization in the face of functional categorization. This flexibility is ubiquitous; for example *under the bed* can be a subject in *Under the bed is a good place to store quilts*, even though prepositional phrases are not canonical examples of the formal classes of entities accepted as subjects by English grammar. Similarly, the conjoining of an imperative and a declarative clause with *and* is here licensed in English and must originally have been motivated by the functional interpretation extending beyond an imperative one, to imagine a situation where the imperative was carried out and to connect that situation with the one described in the following Q-clause.[7]

9.3 Distancing, non-predictives, and other extensions of *and*-conditionals

Once we began looking seriously at the range of *and*-conditionals, we found examples from the more extended range of conditional functions, not just future-reference predictives. Distanced examples occur, and a variety of non-predictive conditional uses are also attested.

And-predictives can occur embedded in past narrative situations, as indirect quotations of thought or speech, as in (23).

(23) The truth, indeed, was that Miss Minchin knew that she [Sara Crewe] was too anxious to learn to require teachers. Give her books, *and* she would devour them and end up knowing them by heart. (FHB.LP.145)

Miss Minchin's thought was presumably "Give her books, and she'll devour them" (a directive as well as a conditional prediction). Since there is no formally past counterpart to an imperative, the modal *would* is the sole marker of embedding in a past narrative space.

We have also found one example of an apparently epistemically distanced *and*-conditional, (24). It is our impression that this particular constructional use is genuinely rare, because the context for such use is also rare.

(24) The whole interior of the car lights up as they drive past a Buy 'n' Fly. *Loiter* in the parking lot of a Buy 'n' Fly and you'*d get* a suntan. Then WorldBeat Security *would come* and arrest you. (NS.SC.49)

Example (24) is embedded in a novel-length present-tense narrative. The present tense thus performs two functions in the text. It expresses generic regularities,

[6] See Foley and Van Valin 1984; for German parallels, see Köpcke and Panther 1989.

[7] Once again, see work on such incorporation of inference into constructional meaning, especially C. Johnson 1996, 1999a, b, and Traugott 1989, Hopper and Traugott 1993.

as is normal in English (see Chapter 4) and, because of the unusual present-tense narrative context, it also refers to specific bounded events (e.g., *The whole interior of the car lights up*). *Loiter in the parking lot of a Buy 'n' Fly and you'd get a suntan* does seem to describe a generic conditional relationship, but is not expressed in present forms. *Loiter*, being an imperative, has no corresponding distanced form, but the shift to past-tense verb forms in *you'd get* and *would come* marks a shift to negative epistemic stance. The imperative protasis clause is evidently setting up a mental space which is seen as improbable, precisely since the activity in question would be generally recognized as inadvisable. What the narrator is apparently thinking is something like, "[You/one probably wouldn't want to loiter in a Buy 'n' Fly parking lot]. If you did loiter there, you'd get a suntan from the UV, and then the security cops would come and arrest you."

The combination of the coordinate *Imperative-P and Q* "deterrent/ inducement" construction with negative-stance forms in the Q-clause and the following *then* consequent clause is a remarkably succinct means of simultaneously conveying several messages to the reader. The deterrent component of the message (with colloquial generic use of *you*) tells the reader what deters people from loitering in these parking lots, while the negative stance includes the reader in the narrator's treatment of this situation as general knowledge by treating it as unlikely that anyone would be rash enough to engage in such loitering. This is a simple, natural, and elegant example of the way in which Stephenson shapes colloquial grammatical structures to his literary purposes, including the complex depiction of viewpoint within a narrative-present base space.

Non-predictive *and*-conditionals also occur, both with and without second-person subject pronouns in the P-clause. The tense forms in the Q-clause are completely unrestricted, just as they are for the parallel classes of *if*-conditionals (see Chapter 5). Example (25) could be glossed by an epistemic *if*-conditional such as "If you take almost any of the most divisive questions about American life, [you'll notice or conclude that] Justice O'Connor either has decided it or is about to decide it on our behalf."

(25) We are all living now in Sandra Day O'Connor's America. Take almost any of the most divisive questions about American life, *and* Justice O'Connor either has decided it or is about to decide it on our behalf. ("A Majority of One" by Jeffrey Rosen, (*NYT Magazine*, June 3, 2001: 32)

In a content-level predictive *and*-conditional, it would not be possible to use past/perfect and proximal future forms in the apodosis if the protasis is a

canonical future-reference imperative form; but it is common to do so in epistemic and speech-act conditionals. The same patterns seem to hold in content vs. non-content uses of coordinate conditionals.

9.4 Conditional *or*

Like *P and Q, P or Q* is known to serve conditional functions in some contexts. Although *or* is basically in the business of symmetric presentation of two alternative options, as in (27), R. Lakoff (1971) has noted examples such as (26), where the speaker clearly does not propose giving the addressee an equal choice between the alternatives.

(26) Give me liberty or give me death.

(27) Give me a hotdog or make me a salami sandwich. (modified from R. Lakoff 1971)

Lakoff proposes that since we assume the speaker of (26) does not actually want to be given death, the addressee must take the request for liberty as the force of the speech act. Sweetser (1990) treats this as an extension of the basic alternative meaning of *or*; assuming that the two alternatives presented are not merely exclusive of each other but also cover the full range, then the impossibility of one option forces the other.

This brings us to conditional uses of *or*. In (28), shown in Diagram 19, the speaker sets up a space wherein P holds (the addressee shuts up), and then uses *or* to mark a contrast with another alternative space, wherein Q holds (the cop shoots the addressee). Assuming that these spaces are construed as exclusive and range-covering alternatives (as necessary for the conditional prediction reading of *iff*), the addressee will be obliged to imagine that ∼Q holds in the space defined by P, while Q holds in some space defined by ∼P. So in the space where the teenager shuts up, she doesn't get shot; and in the space where the cop shoots her, he does so because she didn't shut up.

(28) "Shut up," he says, "or next time I fire the loogie gun into your mouth." (NS.SC.5)
[Future-world "MetaCop" to a teenager he has arrested]

(29) If you don't shut up, next time I'll fire the loogie gun into your mouth.

In context, then, *P or Q* can convey "Q IFF ∼P". Example (29), an *if*-conditional, might well have been used to convey a meaning similar to that of (28). Examples (30) and (32) are parallel to (28); in each case we have provided parallel *if* examples.

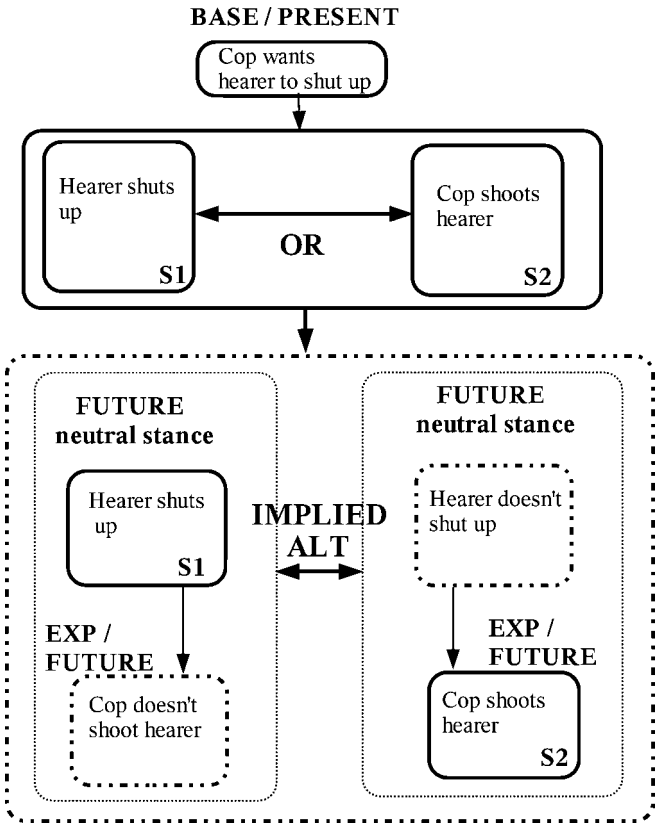

Diagram 19 *Example (28) Shut up or next time I fire the loogie gun into your mouth.*

(30) "Watch out or you'll get me crying." (MHC.WNMML. 203)
[Speaker is telling someone to stop comforting her, for fear it will make her break down and cry]

(31) If you don't watch out, you'll get me crying.

(32) "Give me the tablet," Hiro says, "or I'm taking it." (NS.SC.426)

(33) If you don't give me the tablet, I'm taking it.

So far, we have looked at *or*-conditionals with imperative P-clauses, which are parallel to the imperative-P *and*-conditionals. As in the case of the *and*-conditionals, Gricean principles motivate the *iff* conditional interpretation. P-clauses can be positive or negative; in either case, the interpretation is that there are two exclusive alternatives, P and ∼Q, or ∼P and Q.

Even more than *and*-conditionals, *or*-conditionals seem to be functionally centered on directive or imperative force. And, as with the "deterrent" uses of *and*-conditionals, minimal-unithood and scalar interpretation fit well with the semantics and pragmatics of such space-building functions. In (34), *don't move a step forward* clearly conveys an injunction against any forward motion at all.

(34) "But don't move a step forward, or your life is not worth a bulrush." (CD.OT.351)

(35) If you move a step forward, your life is not worth a bulrush.

A shared factor in these *or*-conditionals, as Lakoff observed, is that they necessarily begin by stating the speaker's preferred option. The alternative space to that option is then portrayed and is intended to be negative enough to force the addressee to take the option stated in the imperative P-clause. *Or*-conditionals are always threats, negative inducements. *And*-conditionals, in contrast, can offer either positive or negative inducements, since they merely build up a single space where both P and Q hold, and invite the addressee to construe that space as a desirable or undesirable alternative to its implied complement space.

The result is that one can sometimes create triplets of matching conditionals with similar meanings, in the forms: (1) *if P, Q*, (2) *P and Q*, and (3) ∼*P or Q*. Examples (36)–(37) are attested *and* and *or* forms; they are examples of "quid pro quo" sexual harrassment, from a campus website on sexual harrassment. Note that the *or* example is indeed a threat, while the *and* example is an inducement. Example (38) is an invented counterpart with *if*.

(36) Have sex with me and you will get a reference when you graduate. (UC-Berkeley on-line course on sexual harassment)

(37) Have sex with me or you won't get a reference when you graduate. (UC-Berkeley on-line course on sexual harassment)

(38) If you sleep with me, I'll give you a good recommendation letter.

Sometimes some rephrasing seems to be in order when a negative protasis sounds awkward in an *and*-conditional, but the other *or* examples above all seem to allow such parallels with *if* and *and*. Examples (39)–(41) illustrate this:

(39) Keep on like this, and you'll get me crying.

(40) Watch out, or you'll get me crying. (cf. [30])

(41) If you don't watch out, you'll get me crying.

However, such triplets will only be regularly possible in cases where there is a non-third-person agent in the P-clause (this is often necessary for the

coordinate structures to be interpreted conditionally), and where the conditional space building is intended to act as a negative (threat or deterrent) force in the speech exchange. There is no *or* equivalent for *Make the right choice, and I'll see you through any trouble that may ensue*, for example, discussed in Chapter 2.

As with *and*-conditionals, there are *or* examples which involve P-clauses in declarative form. As with *and*, the clauses also generally involve first- and second-person agents, or situations which may be brought about by the speaker's or the addressee's agentive action. Note that (42) has not only a formally second-person P-clause but also the directive semantics of the *you('d) better* construction; it is an admonishment, though not an actual imperative.

(42) ". . . you better respect her or she'll do you in . . ." (JR.OG.35)
[Advice about navigating the Mississippi River in a small boat. The river is referred to as *she*.]

Or-conditionals show tense and person adjustment when embedded in past narrative spaces, like other predictive conditionals. In (43), a third-person form is being used with first-person reference in the thoughts of the narrated thinker ("I have to kill the dwarf quickly, or the fighting will lose its purpose."). Since he is mentally addressing – and possibly advising – only himself, he may even be said to be addressee as well as speaker, in which case *he* fills both first- and second-person referential functions.

(43) He had to finish the dwarf quickly, or the fighting would lose its purpose. (AG.MG.148)

Distanced *or*-conditionals also occur, like distanced *and* conditionals, though both are much rarer than the distanced *if*-conditionals. The distanced verb forms in the Q-clause of (44) imply (see Diagram 20) that the addressee won't disobey the imperative in P. The most plausible *if*-conditional gloss, (45), has distanced forms in both clauses; but the imperative form in the P-clause of (44) has no distanced equivalent – and needs none, since it refers to the non-distanced alternate space.

(44) "– Now, for heaven's sake, don't repeat this to your mother, or she'd remove what little hair I've got left, . . . " (SL.B.401)

(45) If you repeated this to your mother, she'd remove what little hair I've got left.

Finally, unlike *and*-conditionals, conditionally interpreted *or*-connectives quite frequently occur straddling sentence boundaries, as in example (46).

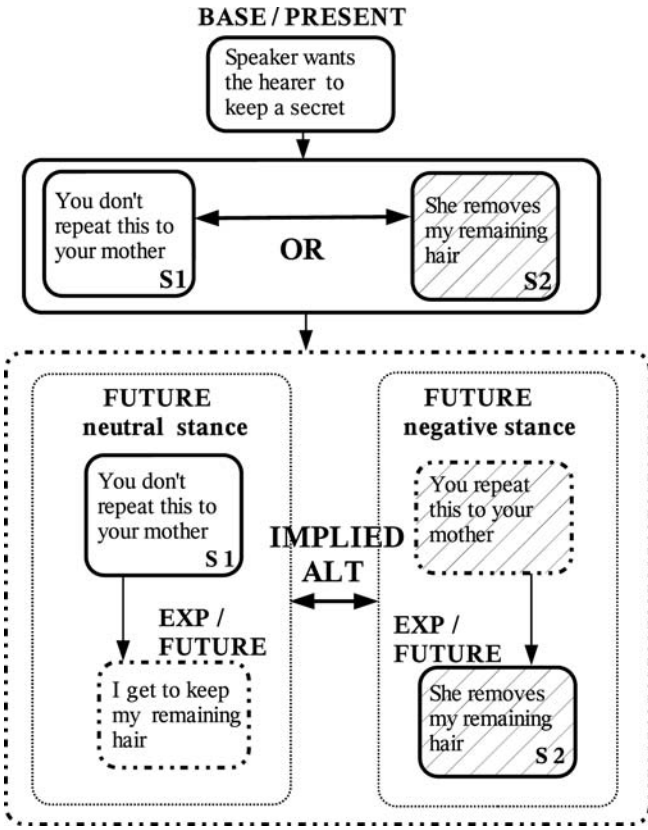

Diagram 20 *Example (44) Don't repeat this to your mother, or she'd remove what little hair I've got left.*

(46) "Yes, nobody minds them [=good times], so lark away, but don't get wild, will you? Or there will be an end of all our good times." (Louisa May Alcott, *Little Women*, U-Va Electronic Text Center)
[i.e., If you do get wild, there will be an end of all our good times.]

And is such a generic sentence connective in discourse that it has no explicitly conditional flavor in connecting a new sentence to the preceding discourse. Conditional interpretation of *and* connections therefore seems to require syntactic co-presence of the two *and*-conjoined entities within a single coordinate sentence. The alternativity which is an essential part of the semantics of *or* gives added structure to its interpretation in sentence-initial position, apparently even allowing conditional interpretation in appropriate contexts.

9.5 Non-clausal P-constituents in coordinate conditionals

Coordinate conditionals, unlike *if*-conditionals, readily allow non-clausal constituents as P-conjuncts, provided that the constituent in question sets up an alternative space of the right kind. P-constituents containing modifiers such as *(just) one more* and *(not) another* form apparently productive subclasses of these conditional constructions. We noted above that scalar reasoning based on negation of a minimal unit is highly compatible with the deterrent function of conditional reasoning, a function which seems to have an important place among conditional uses of coordinate constructions. The appropriate construal of such forms is to set up a space wherein there is one more instance of whatever is being described and to assume that Q holds in that space. For example, *Not another word, or I'll lose my patience with you* and *One more word, and I'll lose my patience with you* both call up spaces wherein there is "another word" – contextually we gather that this means another word spoken by the addressee – and in this space the speaker loses patience. In context, then, such uses are functionally similar to conjoined clausal uses such as *If you say another word, I'll lose my patience with you*. Examples (47)–(49) are attested uses of *and*- and *or*-conditionals with non-clausal P constituents which have minimal-unit semantics; in all three cases the function is clearly deterrence.

(47) "One more word from that direction," she said threateningly, "and I'll call the Policeman." (PLT.MP.14)
[Mary Poppins silences a rebellious charge.]

(48) ". . . here I register a dark and bloody oath that you shan't sing. Another yelp, and overboard you go." (MT.IA.218)
[An unappreciative tourist threatens to throw a singer overboard into a Venetian canal.]

(49) "I hear the jingling of the keys. Not another word of this just now, or they may overhear us." (CD.BR.36)

The *and* examples (50) and (51) involve encouragement rather than deterrence. Like their counterparts with full P-clauses (section 9.1), they clearly involve minimal-unit semantics in P. The idea in each case is that a minimal unit of something will be a sufficient condition to bring about Q: no more is needed. Added inferences may follow, such as that it is relatively easy to do what the addressee is being encouraged to do. Note the very full parallels between (50) and (13), the fight-song example from *You're a Good Man, Charlie Brown*.

(50) "Fellows, it's this way. You've got to win today's game. It's the last of the season and means the pennant for Worcester. *One more hard scrap and we're done*!" (ZG.RO.47)
["Pep talk" to a baseball team before a game.]

(51) "Wo-ho!" said the coachman. "So, then! *One more pull and you're at the top* and be damned to you, for I have had trouble enough to get you to it!" (CD.TTC.13)
[Encouragement – if we can call it that – from a driver to his horses.]

As in the full clausal coordinate conditionals, the conveyed P scenario is normally one involving a first- or second-person agent, or at any rate is an event for which the addressee and/or speaker can take responsibility (the team can scrap hard, the horses can pull well). We see that the pragmatic constraints of the previously discussed coordinate conditionals hold here as well. This is not surprising, but confirms the impression that these two kinds of coordinate constructions involve the same kind of space building.

For verbless P-constituents, however, there is the further necessity that an event be accessible. That is, the speaker can only use a simple NP as a P-constituent of a coordinate conditional if she is sure that it can call up an appropriate event as referent. Mary Poppins can say *One more word from that direction* because (i) *word* metonymically evokes a speech event, and (ii) in context it is already clear that she does not want the addressee to talk any more. A glance at the other examples cited in this section will show that the P-constituents are likewise tightly metonymically bound to contextually accessible scenarios of action which the addressee could carry out.

In fact this seems to be an even more general constraint, applying at least to *NP and S* constructions which have other kinds of interpretations besides conditional ones. Corpus examples of temporal *and*-predictives with the P slot filled by measure NPs (in particular time and distance measure phrases), are abundantly attested. Examples such as *Another ten yards and we'll be out* or *Another five minutes and we'll be in San Francisco* are so numerically dominant among *NP and S* examples that one should probably treat them as a subconstruction of their own. As with conditional cases, some event has to be metonymically accessible from the NP – e.g., *another five minutes* can in an appropriate context mean "if we continue our current traveling direction for another five minutes."[8]

Parallel *NP or NP* examples are attested as well, *Truth or consequences* is interpreted similarly to clausal examples like *Stand still or I'll shoot*

[8] As Dancygier (1998) argues at length, the presence of a sequential chain naturally leads to a causal interpretation. Since both typically underlie conditionality, especially predictive conditionality, it is not surprising that the verbless constructions are naturally interpreted this way.

(section 9.4) – that is, the game so titled involves participants agreeing to give truthful answers to embarrassing questions, with forfeits to be paid if they do not answer truthfully. As with clausal *or*-conditionals, less-specific analogues can be constructed ending in *or else* (*OK, the full truth – or else*). An inverted example is *trick or treat*, which should apparently (judging by our discussion of clausal parallels) be *treat or trick*, with the desired option first. However, it should be noted that in this case the threat comes first. The treats were originally offered on doorsteps as a way of buying off Halloween pranksters (both fairy and human) – who were assumed to be out there causing trouble for its own sake, not just in order to get treats for stopping. Later, the expectation went the other way: that is, nowadays trick-or-treaters are presumed to be out to collect treats rather than to play tricks; trick-playing is a backup threat, if the desired option of the treat fails. But the phrase seems to reflect the original system.

To a very significant degree, therefore, these coordinate conditionals with non-clausal P-constituents are predictable from broader constructions of English grammar. The choices of verb forms follow from extremely general principles. The restriction to first- and second-person reference follows from generalizations about the larger class of coordinate conditionals, as does the related connection with imperative or directive force. The patterns of scalar reasoning observed are extremely general crosslinguistic patterns, as is the interaction of scalarity with negative polarity. There also seem to be strong conventional patterns of exploiting these inferential structures in coordinate conditionals, which are manifested equally in this subclass of coordinate conditionals. And finally, informational constraints on non-clausal P-constituents are general beyond the class of coordinate conditionals, extending at least to a prolific class of coordinate temporal predictives with NP P-constituents.

9.6 Paired constituents with no conjunction

Taking things one step further, we should note that much of what is explicitly marked by a conjunction such as *and* can also be conveyed by the simple adjacency of two linguistic constituents. Whatever added information is conveyed by the order of conjoined constituents is of course still present in the order of bare adjacent constituents. Conditional meanings are one of the many interpretations available for such unmarked sequences.

(52) You win a few, you lose a few.

(53) Scratch a cynic, find an idealist.

(54) Ask a stupid question, get a stupid answer.

(55) Three strikes, you're out.[9]

You win a few, you lose a few conventionally seems to have a non-conditional symmetrically conjoined interpretation, meaning something like "both these things happen in life." But *Scratch a cynic, find an idealist* has more of a generic temporal and conditional reading: "If/when you scratch a cynic, you find an idealist." *Ask a stupid question, get a stupid answer* similarly seems to mean that if you ask that kind of question, that is the kind of answer you get. Any of these could also occur with *and* conjoining the two constituents, with very similar meaning. For new coinages of this type which are not already linked to a conventional reading, pragmatics seems to determine the most plausible interpretation. *You win a few, you start to think you're a hot player* plausibly conveys a generic temporal or conditional reading, where *you win a few* is the background space-builder for the following clause's content. And *Ask a stupid question, get a stupid answer, drink another cup of coffee* can be seen as temporal sequence rather than conditional, if we imagine it as a cynical detective's list of useless routine investigative actions.

Similarly, independent sentences or utterances without a conjunction are readily interpreted as bearing a wide range of causal, sequential, and conditional relationships to each other (Blakemore [1987]):

(56) The weather was dreadful. We all got sick.
[Causal: cold, wet people may become ill because of being cold and wet.]

(57) You want help? Call Sue.
[Speech-act conditional: my suggestion that you call Sue is contingent on a positive answer to my preceding query.]

(58) We all got sick. The weather was dreadful.
["Explanation:" causal information presented after the foregrounded information, to contextualize it for the addressee. Intonation pattern is different from that of (56)]

It is interesting to observe that such constructions can further be embedded in other similar constructions. Examples (59)–(62) are a mini-corpus from a single book by Jonathan Raban. Italics mark the relevant pairs of clauses.

[9] In baseball, a batter who unsuccessfully strikes at three successive pitches loses the chance to score on that turn. This particular phrase is also applied metaphorically to a California state law requiring life imprisonment of a criminal convicted of three separate felonies.

(59) "You run into a wing dam, you'll be real lucky if your motor is the only thing you lose . . . " (JR.OG.45)
[An *if* construction is embedded in the Q-constituent of the bare-conjunct conditional.]

(60) "Think about it. Do it slow. *You run into any kind of trouble, think slow and you'll make out okay*. . . " (JR.OG.45)
[Note the *and*-conditional embedded in the Q-clause of this bare-conjunct conditional.]

(61) "*You take a wake right, you won't have no problem at all. You let her swing you round broadside, though, she'll roll you right over*. Then you'll have to swim down to New Orleans. . . " (JR.OG.46)
[Two bare-conjunct conditionals in a row, presenting opposite alternatives, and thus elaborating the predictive function of these conditionals. Here "she" refers to the addressee's boat.]

(62) "But you've got to watch that sky. *You ever see anything queer about it, if the clouds look wrong somehow, you get off the river* . . ." (JR.OG.35)
[Note the rephrasing of the bare P-clause as an *if*-clause; the two together seem to be the protasis for the following Q.

While the examples in (59)–(61) are predictive (and non-distanced), (62) appears to be a speech-act conditional offering advice (*get off the river)* contingent on the background expressed via two clauses: the bare P-clause is then rephrased as an *if*-clause. It is clear that the bare-conjunct coordinate construction is well established enough to appear in complex syntactic contexts and in a variety of functions.

Example (63) is the only instance we have documented of a bare-conjunct conditional with Q, P rather than P, Q clause order. We have never seen an *and* conditional or an *or* conditional with this inverted order.

(63) ". . . when I told him that I was riding the river, he chawed and spat and said: "He'll bury your ass, you don't treat him right." (JR.OG.281)
["He" refers to the Mississippi River, which the addressee is being advised to navigate with due respect for the risks involved.]

And- and *or*-conditionals do not seem generally possible with *Q-conjunction* P order. As mentioned by Haiman (1980), juxtaposed and coordinate constructions usually require that a conditional interpretation take earlier textual material as the space-builder and later material as representing the contingent main event or situation. This seems to follow from the backgrounded and (relatively) presupposed status of the space-builder, as compared to the foregrounded (and asserted) status of the contingent information. Without a conjunction to mark

one clause as background and the other as foreground, one as contingency and the other as contingent, only clause order (or utterance order) is available to mark these relationships.

However, in the absence of any conjunction, it is possible to override the discourse-structure cues given by clause order with appropriate intonation. The speaker's intonation then must mark the focus structure appropriately; this consists of rising intonation on the conditionally asserted Q-clause, and falling intonation to background the following P-clause and mark it as a backgrounded space-builder relative to Q.[10] *And* and *or*, general as they are, may be too specific in their construction of informational structure to allow for *Q and P* or *Q or P* conditional readings.

Many aspects of the examples in this section follow from broader grammatical generalizations. Like other conditionals, bare-conjunct constructions regularly make use of standard predictive verb forms and they also permit interpretation of conditional relations at more than one level, for example, speech-act and epistemic uses. And of course, for a conditional reading of a coordinate construction to be accessible, the first constituent must succeed in building a space which is predictively (or, less commonly, non-predictively) related to the material in the second constituent.

To sum up the discussion in this chapter thus far, the suggested treatment of the conditional functions of paratactic conjunction constructions and of conjunction-less parataxis has several advantages. First, we can recognize that much of the meaning conveyed by such constructions is predictable from very general pragmatic principles of space construction, combined with the specific semantics and pragmatics of the constructions involved. We do not need special semantic *and* or *or* senses, which seem not only unnecessary but suspicious in that there is little crosslinguistic basis for them (see Horn 1985). The imperatives in particular can retain their normal semantics and pragmatics, with an added layer of interpretation which may need to be attributed to particular conventional constructions, but which is motivated by the general principles of speech acts and pragmatic interpretation.

However, the specific details of grammatical sub-constructions are generally not predictable from the more general constructions even when a highly specific construction inherits most of its structure from a more general one. For example, more general conditional constructions do not predict the fact that *and* and *or* conditionals should be so closely tied to second-person expression, while bare-conjunct conditionals do not seem to be so restricted. And cursory

[10] See Haiman 1986 on intonation and reversal of order.

corpus-searching suggests that there is a special construction (of relatively high frequency) involving temporal and conditional predictive uses of *NP-measure-phrase and S*; this construction may need special description, if we are to represent speakers' native knowledge of English constructions accurately.

9.7 Non-clausal coordinate conditionals without conjunctions

We have seen that clauses and verb phrases are not the only constituents that can give rise to conditional readings when placed sequentially with no explicit conjunction. Examples like *Three strikes, you're out* conjoin syntactically non-parallel constituents, unlike the patterns seen in the *CLAUSE, CLAUSE* and *VP*, *VP* examples above. Yet semantically *Three strikes, you're out* ([55] above) is quite similar to *Ask a stupid question, get a stupid answer*: both involve taking the juxtaposed constituents as representing two events, and the sequence of constituents as representing the causal sequence of those events. Both can be construed conditionally: if you accumulate three strikes, you'll be "out," and if you ask a stupid question, you'll get a stupid answer. So it seems clear that we have *NP*, *S* conditionals on the same model as the *NP and S* conditionals examined in section 9.5.

Combinations of smaller constituents, in particular noun phrases, show considerably more restricted options for conditional interpretation. We shall not here treat the syntactic restrictions involved. However, the principles mentioned above can be invoked to explain the conditional aspects of the readings of *NP*, *NP* examples like (64)–(67). The NP constituents are metonymic for events or situations, and the sequence of the juxtaposed constituents becomes iconic for causal and thus for conditional relationship. These are proverbial examples, but novel parallel examples can be produced.

(64) Another day, another dollar.

(65) No pain, no gain.

(66) No cross, no crown.

(67) No shirt, no shoes, no service.

We cite *Another day, another dollar* as an example of *NP*, *NP* interpretation which is more of a generic temporal than a true conditional; we shall return to this below, but as we have seen it is not uncommon for sequentiality to give rise to both temporal and conditional meanings. *No pain, no gain*, however, (like *no cross, no crown*) seems conventionally to have a strongly predictive conditional reading, something like "suffering is a precondition of gain." One

might perhaps imagine it being construed as an expression of the balanced pros and cons of an uneventful situation (somewhat like *you win a few, you lose a few*), but this is not the conventional reading. Indeed, there appears to be a quite productive sub-construction *No NP1, no NP*2, which carries predictive conditional meaning: *No deposit, no apartment* seems as comprehensible as *No shirt, no shoes, no service*. We should note in passing that the first part of this juxtaposed construction seems to be recursive, while the second is not: that is, *no shirt* and *no shoes* are taken as parallel possible conditions, and *no service* is construed as the result of these conditions. Although a fully parallel construal is possible (it's just the case that this benighted person has no shirt, no shoes, and no service), it seems very difficult on a conditional reading to construe the first of the juxtaposed constituents as the condition causing the second and the third.

Interestingly, the positive counterparts of some of the negative juxtapositions above seem quite incoherent: a sign such as *(a) shirt, shoes, service* would not successfully convey that customers will be served if wearing a shirt and shoes. At least part of the difference between the interpretation of negative and positive juxtaposed phrases seems to be regularly attributable to the negative semantics. *No X, no Y*, glossed as "If there is no X, there is/will be no Y," expresses an *only-if* relationship: *if* $\sim P$, $\sim Q$ means that Q can (at best) hold only if P does. But a positive pairing of NPs does not seem conventionally interpretable by a similar process as meaning "Q only if P." *(Some) pain, (some) gain* does not mean "there is some gain only if there is some pain." If anything, one would interpret it as meaning something like "if (but not *only if*) there's some pain, there's some gain." And even that is not a fully conventional reading like the negative NP pairings. This limitation is unique to this construction, since a positive *if*-conditional can easily be given an *iff* interpretation: for example, "If you are wearing a shirt and shoes, our staff will cheerfully serve you" can convey that you will be served if *and only if* you are properly dressed.

The fascinating concessive *no shirt, no shoes, no problem* has been sighted by Mark Turner in San Diego beachfront establishments; in the San Francisco City Lights book store, *No shirt, no shoes, full service* conveys a similar message. Both of these seem to rely on *no shirt, no shoes, no service* to construct their concessive meaning, which is not readily attributable to the grammatical structure itself. The *no problem* version cleverly parallels the full form (including the final negative) of the *No X, no Y* sub-construction, and conveys its concessive meaning solely by content; while the *full service* version reinforces the departure from the construction by switching to a positive final constituent.

Returning to *Another day, another dollar*, we note that it is one of the prototypes for a relatively productive conventional sub-construction *another NP1, another NP2*, which conventionally conveys generic correlation of the two classes of events or situations evoked by the two NPs. Each of these NPs has to be construed as referring to a known, common class of events or situations, "another" of which is likely to be encountered. Productive uses are certainly comprehensible: it seems acceptable to say *another day, another ten dollars*, or *another theater ticket, another thirty bucks*, or even *another modern play, another shoe-string budget*. This construction might be seen as more temporal than strictly conditional – however, it clearly belongs to the same class of constructions as our *no NP1, no NP2* construction.

English has relatively productive paired-scale comparative constructions which normally convey conditional relationships, including a paired-NP *More NP1, more NP2* construction which means something like "The more of NP1 there is, the more of NP2 there is/will be." This construction also works with *less*, and seems semi-productive with other comparative adjectives besides these (see [72] and [73]).

(68) More work, more pay.

(69) More pay, more work.

(70) Less pay, less work.

(71) Less work, less pay.

(72) Younger parents, healthier kids.

(73) Better service, happier customers.

The directionality of the conditional contingencies expressed in these examples becomes quite clear when we envision them on union or employer publicity signs. The employer signs might be expected to say *more pay, more work* or *less work, less pay*; the union signs might appropriately say *more work, more pay* or *less pay, less work*. The employer wants to maximize the work-to-pay ratio, the union to maximize the pay-to-work ratio. A paired-scale model is evoked,[11] and the employees are trying to avoid points below the line in the diagram which represents current wage policy, while the employer is trying to avoid points above that line. Crucially, we find ourselves compelled to interpret the first NP as the condition, and the second as the situation contingent on that condition, rather than the other way around. *More work, more pay* means "If

[11] See Fillmore, Kay, and O'Connor 1988.

more work is done, more pay must be given out," and not "If more pay is given out, more work must be done."

An interesting variant on these conventionalized sub-constructions is the proverb *more haste, less speed*, which seems to negate the expectation that more haste will condition more speed, not less. Again, one can imagine interpretable novel sequences of this type. These seem less obviously and conventionally conditional as the ones with *more . . . more* or *less . . . less*: however, there is no problem with accessing conditional interpretations of *more recycling, fewer garbage problems* or *less waste, more clean water*.

These juxtaposed-NP constructions are of course also semantically similar to a range of other paired-scale constructions in English, many of which show conditional meaning, in that they express conditional dependency between the value on one scale and the value on the other. We might thus take *the Xer, the Yer* as a conditional construction of English – one which is tailored specifically to conditional relationships between scales. *The Xer, the Yer* has been observed (Fillmore, Kay, and O'Connor 1988) as conjoining constituents of many kinds and sizes:[12]

(74) The more, the merrier.

(75) The bigger, the better.

(76) The higher the building, the greater the risk in an earthquake.

Here, as with our *Xer NP1, Yer NP2* constructions, the order of constituents is crucial to the interpretation. And, as we are coming to expect, there is more flexibility and productivity to this complex construction than to the more limited *NP, NP* construction, presumably because a pair of NPs is limited in how much mental-space building it can accomplish.

What is it about negation and comparison (especially comparison of quantity, apparently) which makes pairs of juxtaposed NPs into likely candidates for conditional interpretation? First of all, negation and comparison are both examples of linguistic markers of contrasting mental spaces. Decades of linguistic literature have dealt with the fact that a negative assumes the presence or accessibility to the interlocutors of the corresponding positive, while the converse is not true. Mental Spaces Theory describes negative spaces as involving a negative alongside a positive space, while positive statements set up only the positive space. Comparison likewise involves two spaces (corresponding to the

[12] See also Michaelis 1994b on the Latin correlative comparative construction *quanto . . . tanto*.

compared entities, domains or scenarios), each structured by a scalar parameter. A pair of NPs in themselves might not be likely to give rise to a reading of contingency – a listing reading, for example, might be preferred. However, a pair of NPs marked with negative quantifiers or comparative modifiers would provide much more mental-space structure of precisely the kind likely to prompt conditional and predictive interpretation: structures involving scales which can be understood as correlated, and alternative spaces which are structured by that correlation or by the negation relationship.

Finally, to emphasize the distinctiveness of the constructions discussed in this chapter so far, we should note that coordinate conditionals, bare-conjunct conditionals, and *NP, NP* conditionals all seem to be standard forms for proverbs – more common in fact than *if*-conditionals.[13] Examples such as *No cross, no crown*, or *Spare the rod and spoil the child*, or *Nothing venture(d), nothing gain(ed)* are standard. We will not examine these in detail here, but we note that the lack of full temporal grounding in such constructions (no tensed verbs, for example) is friendly to a generic interpretation, suited to proverbial wisdom. *NP, NP* conditionals are in fact usually interpreted generically. Proverbs are also frequently admonishments or deterrents, and we have seen that coordinate conditionals are strongly correlated with these meanings.

9.8 "Freestanding" parts of conditionals

If doesn't just build spaces; it builds spaces as background. *Then* clauses aren't just assertions or predictions, they are assertions or predictions relative to some background. It is therefore natural that, when the rest of the relevant space structure is contextually accessible, either an *if* or a *then* structure is potentially syntactically freestanding. In fact, we shall see such constructions are common and unproblematic.

Haiman (1978, 1986) has noted the similarity between *If P, Q* conditionals and question–statement sequences (*Is it raining? The game will be canceled*). There is a broader generalization to be made here. Question–statement sequences which function like conditionals are precisely those in which the question asks about a background condition whose verification establishes the mental space wherein the following statement holds. Conditional reasoning structure is more basic than any specific syntactic form such as question-statement. Alongside the question-statement (77), we find examples such as (78), where statements

[13] Our corpus was primarily *A Book of English Proverbs* (Collins 1959/63).

which are expressed by fragments (with no explicit conditional marking) serve as mental spaces set up to contextualize and justify a following question (which is marked with *then*).

(77) "But suppose everybody on our side felt that way?"
"Then I'd certainly be a damned fool to feel any other way. Wouldn't I?" (JH.CTT.113)

(78) . . . crumb catcher, he'd said. Unsanitary. Then why did he feel this sudden, wrenching need to keep the rug for himself? (AT.AT. 21)
[A husband is reluctant to give his separated wife a rug which he disliked.]

Two major categories of syntactically free-standing *if*-clauses emerge from our data. The first is the "trail-off" – an *if*-clause presented in order to suggest possible consequents, which remain unexpressed. Sometimes the consequents are rather unspecific; in (79), for example, it is unclear exactly what would have followed from the addressee keeping the speaker better informed, except that it would have been preferable. In (80), on the other hand, the speaker seems to mean specifically that a deadline extension is indeed possible, if desired.

(79) "Really, I had no idea, Macon. I mean, if you'd let me know what was going on in your life . . ." (AT.AT.86)

(80) "If you want another, I don't know, another month." (AT.AT.87)

The second category of free-standing *if*-clauses consists of specifying the spaces in which preceding discourse material holds. In (81), *maybe* has already made clear that the prediction of the dog's obedience is not necessarily a future reality space. But the following *if*-clauses make it clear precisely in what kind of possible future space the obedience can be predicted. There is no need to restate the discourse-salient consequent. At the same time, the predictive relation between P and Q is clearly maintained, partly through the verb forms used: P is backshifted, while Q uses the predictive *will*.

(81) (Trainer discussing dog:) "Maybe tomorrow he'll lie down on his own."
(Owner:) "You think so?"
(Trainer:) "If you practice. If you don't give in. If you don't go all softhearted." (AT.AT.168)

As (82)–(84) suggest, these conditionals happen on various levels and with a wide range of conditional functions, including the re-casting of the Q-space in (84) as a distanced space.

(82) "Are you going to stay?" she asked.
"If you're not too sleepy." (AT.AT. 229)

(83) "So will you keep him?" Macon said.
"Oh, I guess," she said. "If you're desperate." (AT.AT.29)

(84) "Litterbox! For a dog?"
"Why not? If it were big enough." (AT.AT.63)

This variety makes it less surprising to find examples of other non-prototypical conditional forms, such as (85), which is a basic *Q, if P* conditional whose Q-constituent happens to be in a special constructional form, No X. *No X* here is not taken as an imperative, but as a statement that X does not occur. It is a construction which is syntactically nominal rather than clausal and which does not seem acceptable if P precedes Q (*??? If you separate foreign money ahead of time, no fumbling with unfamiliar coins*).[14]

(85) No fumbling with unfamiliar coins, no peering at misleading imprints, if you separate and classify foreign money ahead of time. (AT.AT.35)

Finally, conditional verb forms marking negative stance, such as *would* and *could*, can set up a distanced-stance space which can then be built on conditionally. In (86), the speaker's conditionally phrased question sets up a space characterized by waiting out the rain rather than driving in it. The following statements express the consequents which might be predicted in this distanced-stance space.

(86) "This rain, for instance," Sarah said. "You know it makes me nervous. What harm would it do to wait it out? You'd be showing some concern. You'd be telling me we're in this together." AT.AT.6)

Similarly, the negation-space set up in *you're not leaving him* [a dog] *with me* in (87) is the background to the relevance of the following statement about not knowing how to handle him. (A paraphrase might be *If you left him with me, I wouldn't know how to handle him*.)

(87) "What about when you start travelling again?" Rose asked. "You're not leaving him with me. I wouldn't know how to handle him." (AT.AT.125)

Speakers may build conditional spaces opportunistically, as new space structure emerges in the conversational context. When they do so, they need not necessarily recapitulate a full conditional statement of the space structures in question but may simply fill in the parts of the structure they wish to add. If an already-active space appropriately sets up part of the structure they need

[14] Thanks to Karen Sullivan for drawing our attention to this restriction.

(e.g., it is hypothetical, or irrealis, or negative-stance), they may graft their new mental-space relationships onto it.

9.9 Conclusions: constructions and compositionality

And- and *or*-conditionals, as well as bare-conjunct conditionals, inherit some of the attributes of the broader family of conditionals. At the same time, they need to be treated as specific constructions, as they do not simply fall out from the various motivations which we have noted as underlying their form–function mappings. For example, we need a special construction to permit a clause which counts as a directive (whether declarative or imperative) to be followed by a coordinate-conjoined declarative second clause, with a conditional interpretation of the whole. This generalization cannot be derived from the imperative, declarative, and *if*-conditional constructions alone, even considering iconic conventions on the interpretation of clause order.

Furthermore, we need specific constructions to account for *NP and/or S* conditionals, and to explain the conjunction and juxtaposition of sub-clausal constituents with conditional meaning. There are almost certainly very local and specific constructions accounting for the *No NP1, No NP2* class of conditionals; and there may well be a special *Give X a Y and X will take a Z* sub-construction of the *S and S* conditional construction. Although the exploitation of context to fill out "lone" P- or Q-clauses and build conditional spaces is regular, productive and general, we need a special exclamative *if that NEG* construction (see section 8.8.) to describe both the possible uses of such *if*-clauses, and the impossibility of using non-negative *if*-clauses to serve this function.

Despite their apparent specificity, these overall patterns of conditional interpretation of coordinates are common crosslinguistically, based as they are on space-building strategies which are not language-specific. In French, *Go away or I'm calling the police* translates word for word as *Allez-vous-en ou j'appelle la police*, with the structure *Imperative-P or Declarative-Q* precisely parallel to that of its English equivalent. These structures may, therefore, be more motivated than a language-specific analysis would suggest. Coordinate conditional uses may be constrained by semantic and pragmatic factors to a large extent, limiting the need for construction-specific delimitation.

Regardless of the internal compositionality of such constructions, and the distribution of their basic description between construction-specific generalizations and broader semantic and pragmatic factors, it is fascinating to see how the remarkable compositionality of the interactions of the coordinate conditional construction with other constructions – such as those governing the

choice of verb forms in declarative P- and Q-clauses of conditionals – points to an underlying regularity in the incorporation of conditional reasoning.

Both coordinated and juxtaposed constructions showcase the amazing human ability to make rich and flexible connections between things whose connection is minimally specified. They also show us the constraints on that creativity; some minimal specification (clause order, for example) of the relationship is required, along with some minimal framing of the content (for example, a context-free list of nouns does not seem to be helpful in bringing up conditional relationships in mental-space construction). These grammatical constructions fall at widely spread points on a range of productivity, and illuminate a natural correlation between the productivity (and compositionality) of a construction and its options for expressing complex, compositional mental-space structure. The more "minimal" the meaning actually expressed by the lexical forms, the more conventional and specific the meaning of the construction needs to be.

A comparison between *if* conditionals and conditional uses of *or*-conjunction is particularly instructive for the grammarian interested in compositionality and in the relationship of conventional linguistic semantics to conveyed meaning in context. We might say that *if* semantically conveys conditional contingency, and that the contingency can be used predictively if it is construed as involving precisely two alternative spaces, one wherein Q is contingent on P, and the other containing ∼Q contingent on ∼P. On the other hand, *or* is semantically about alternativity, but that alternativity can be construed as a predictive conditional if the first conjunct is interpreted as a space-builder, and the second as the contents of a space which is alternative to the first. Therefore, *if*-conditionals and *or*-conditionals can arrive at a similar semantic result via two very different routes.

This may sound extremely complex: why, indeed, *should* a speaker or hearer connect a pair of *or*-conjuncts with a builder for one space and the contents of that space's alternative space? But in fact, the humans engaging in these linguistic usages have pre-assembled complex cognitive structures involving the use of alternative spaces, correlation and contingency to make predictions. And this pre-assembled structure can be accessed from multiple directions: alternativity can be an access point, but so can contingency.

In sum, given a wide range of space-builders and markers of space structure, correlations between such markers are bound to result from correlations between aspects of the space-building activity. It is no accident that negative-stance verb forms are one cue which can eventually be exploited as part of a co-built conditional construction (as in [86]), or that clause order is potentially construable as conveying conditional meaning. The meanings of P, Q clause

order and negative-stance verb forms are not merely compatible with those of complex conditional constructions, but in fact are responsible for indicating conditional space building in salient ways. The ease with which more general linguistic forms may be conscripted to serve the purpose of conditional reasoning emphasizes once again the phenomenal human ability to access a complete, larger frame from even its most rudimentary parts.

10 *"The door-scraper in the Wild Wood": conditional constructions and frame-based space building*

> "Now," says you, "that door exists, as plain as if I saw it. There's nothing else remains to be done but to find it!"
>
> (From Chapter 3, *The Wind in the Willows*, 1908, by Kenneth Grahame)

We will conclude our book with a summary of our findings, and the placement of those findings in their cognitive context. We will first revisit the descriptive parameters which we have found necessary for distinguishing conditionals from each other and from other adverbial constructions in English. We hope that these parameters may be useful not only in understanding these English constructions, but also in building up a crosslinguistic and comparative understanding of functionally and/or formally similar constructions in general. Since some of these parameters are relatively orthogonal to each other, in many cases their markers make compositional contributions to the meaning of larger constructions. In other cases, as we have seen, a construction as a whole must be examined to identify the form with its conditional meaning.

To conclude our analysis, we shall step back from conditional constructions in particular and consider our findings against the broader backdrop of the kinds of cognitive processing strategies involved in non-compositional or partially compositional constructional semantics. Such processing is not restricted to conditional constructions – nor indeed to language itself. Recognition of these broader cognitive patterns, and their reflection in linguistic frame structures and non-compositional units, permits generalizations and brings to light regularities that would otherwise remain elusive.

10.1 Form–function parameters of conditionality

Throughout the book we have compared conditionals with other adverbial constructions, using a number of parameters related to their form and interpretation. We now review the major categories which have recurred in our discussion and which distinguish many conditional constructions (for example, *if* and *unless*, *if*

in combination with *then*, *even*, *only*, *except*, etc.), as well as the uses of major adverbial conjunctions (*when*, *because*, and *since*).

Prediction. *If* and *when* (and other temporal conjunctions) often serve the predictive function and thus naturally structure *alternative* mental spaces. (The causal conjunctions *because* and *since* are not used to structure predictive reasoning patterns, due to their unsuitable causal semantics. Their positive stance alone should not disqualify them from predictive use.) All the predictive constructions use the "backshifted" present tense with future reference in P-clauses, as a marker of background to predictions. The conjunctions which structure predictive constructions are also used to represent generic statements (generalized predictions). For conditionals, syntactic constructions and *predictive verb forms* seem more important than the presence of *if* in prompting predictive reading; these can indeed readily prompt predictive conditional readings without the explicit conjunction *if* (see Chapter 9).

Epistemic stance. While *if* can be neutral or negative, *when*, *since*, and *because* involve positive epistemic stance. This dimension is apparently not absolutely correlated to that of predictive function, although other aspects of the semantics of the specific conjunction are strongly correlated with particular values of both prediction and epistemic stance. Verb forms and syntactic constructions, as well as conjunctions, are closely involved in marking epistemic stance; so are modal verbs, adverbs, and various other kinds of marking which we have not discussed at length in this book.

Types of mental spaces. All the conjunctions analyzed can structure spaces of content and non-content types, although not all do so with equal ease. (For example, *since* in a non-temporal sense does not seem to carry a content-space interpretation readily, while temporal *since* seems mostly restricted to content-space use. *Because* is certainly rare in non-content uses.) Speech-act-space and epistemic-space uses are pervasive and are surely the most frequent varieties of non-content-space conjunction uses, though metalinguistic and metametaphoric uses are common in certain genres. Conjunctions are of course part of a broader class of operators which may function in multiple levels of mental spaces (see Sweetser 1982, 1990 on modals, for example). *If* seems unusually flexible, however; it has a broader range of usages than its apparent counterparts in other languages.

Clause-order preferences. While *if* readily appears in all types of clause-order patterns, other conjunctions (such as *unless* or *because*) show stronger preferences for either P or Q being placed sentence-initially or sentence-finally. Such preferences may reflect specific mental-space set-ups, as well as the compositional contribution and scope of constructional elements such as *only* or

except. Clause-order restrictions in paratactic constructions correlate with their predictive function and verb forms.

Space evocation vs. *space set-up*. While *if* is used both for space set-up and for space evocation, other conjunctions are more specialized. For example, the use of *since* seems restricted to space evocation. This dimension seems related to epistemic stance, since "presuppositional" positive-stance conjunctions show predominantly evocative rather than set-up functions.

Presupposition. The relation between P and Q may be asserted, while the content of the P-clause itself is either presupposed or asserted. *If*-constructions assert the conditional relationship but do not assert P. The causal conjunctions contrast crucially in this respect: *since* presupposes the content of the P-clause, while *because* (in a "non-comma" construction) asserts the P-clause content as well as the causal relation between P and Q.

Causality. Causality is an important factor in adverbial constructions, but may appear at different levels of interpretation. *Because* asserts causality with positive stance. While *if* may not assert causality directly, it does directly and conventionally prompt causal inferences in predictive reasonings with neutral and negative stance. All adverbial conjunctions may rely on causal relations in their use in both content and non-content domains.

Compositionality and conventionality. We have also distinguished constructions in terms of their degree of compositionality. While *if*- or *because*-constructions appear to be fairly compositional in their interpretation, other constructions (such as monoclausal *if only* or *if that NEG*) show a high degree of constructional conventionality (see the next section for more comments).

In arguing for the descriptive validity of parameter-based comparisons between constructions within English, we have relied on the formal and conventional features of the constructions under analysis. We have used the parameters listed above as central criteria in drawing the distinctions offered throughout the book. However, we believe that these factors will prove to be relevant to many other languages besides English. In some cases, there may be universal correlations of meaning and form to be found in conditional constructions; for example, Haiman (1980, 1986) has proposed that a preference for PQ (rather than QP) order is a universal of conditional constructions. But even more evidently, we find these parameters useful in contrasting languages. Japanese (see Yamaguchi Fujii 1993) and Chinese,[1] for example, do not allow non-predictive

[1] Thanks to Guo Jiansheng for this observation on Chinese; see also Herforth 1994 on earlier stages of Chinese conditionals. Japanese conditionals have been well documented, in the work of Fujii (1989, 1993a, b, c, 1994, 1997, 1999, 2001).

speech-act-space uses of the same markers they use for basic content-predictive uses. The concepts of predictive function and speech-act-space usage are helpful in clarifying some basic differences between English and Chinese or Japanese; this is evidence that such parameters may be relevant even across languages which encode them differently.

In English, however, *if* is the subordinating conjunction with the broadest and the most varied array of uses. In fact, all the other subordinate conjunctions discussed show some formal or pragmatic overlap with the constructions structured by *if*. It is not so surprising, perhaps, that the topic of conditionality seems to be almost impossible to cover exhaustively. Although we trust that this analysis, like our earlier work, has advanced our understanding of conditionality, we are sure that *if* will continue to excite and surprise us.

10.2 Constructional compositionality and frame-based space building

Conditional constructions are a perfect sample to exemplify the extent to which human cognitive access is different from the kinds of cognition involved in standard logical semantic and pragmatic models. General mental-space-building strategies, and in particular the pervasive ability of frame components to metonymically cue cognitive access to a whole frame, are constantly involved in the interpretation of conditionals. Particular manifestations of such processing strategies may become canonized as individual constructions, freezing those particular mental-space structures into conventional meanings in English grammar – as in the case of the exclamative *If that NEG* construction.

This kind of frame-metonymic cognitive access makes it possible for dissimilar forms to cue essentially identical complex mental-space structures. Usually contextual background is involved in setting off such cuing. In the right context, for example, either *or* or *if* may seem to point with inevitable force to a predictive reading, while in other contexts, the alternativity of *or* or the contingency of *if* may be exploited in entirely different ways. Although they do not inherently carry a whole complex frame as baggage, they may seem to do so because their presence is what tips the scales in favor of the evocation of that frame. We must not confuse their conventional meanings with the powerful work which these conjunctions can do in guiding the construction of some particular complex frame.

For example, *Dry yourself off, or you'll get pneumonia* presents a directive apparently as an alternative to a statement which (being future) may be construed as a prediction. The presence of *or* rather than *and* prompts the construal of this sentence as a directive followed by a threat about the consequences if

the directive goes unheeded. But we would not want to attribute all of this meaning to *or*. In the context of a directive first clause, a conjunction marking alternativity helps to evoke the conditional prediction complex which is also prompted by the predictive future form of the second clause. Since the two clauses are marked as alternatives, they have to be taken as representing aspects of the two alternative spaces involved in prediction, rather than as both describing the same space (as in *If you don't dry off, you'll get pneumonia*). However, without the contents of the clauses, our knowledge of likely cause–effect relations, and our understanding of how directives function (in company with inducements and deterrents), the alternativity of *or* would be insufficient to evoke a full predictive scenario.

The kind of cognitive connection involved here is certainly not restricted to conditionals. It pervades not only linguistically prompted space building, but non-linguistic human cognition as well. As an example of frame-metonymic cognitive access, consider the scene in *The Wind in the Willows* (quoted at the beginning of this book) where the Mole and the Water Rat, lost in the dangerous Wild Wood far from home on a snowy night, stumble upon a door-scraper. The Rat makes the Mole help him dig in the snow, and they eventually unearth a doormat, and finally a door: the door of their friend Mr. Badger's house, where they find shelter for the night. Along the way, Mole consistently protests that there is no reason to dig: all right, so there's a door-scaper, why infer anything more from that? So there's a doormat, why should that mean anything further? And indeed, one can imagine that a door-scraper and/or a doormat might occur on its own, far from a house or a door. But, as it turns out, the Rat is correct in building up a highly complex evoked mental space involving a whole dwelling, based on the presence of these minor appurtenances of the dwelling frame.

Once the Rat and the Mole have located the dwelling-door whose presence the Rat deduced from the successive discoveries of door-scraper and doormat, the Mole suddenly sees the Rat's train of reasoning.

> *The Mole fell backwards on the snow from sheer surprise and delight. "Rat!" he cried in penitence, "you're a wonder! A real wonder, that's what you are. I see it all now! You argued it out, step by step, in that wise head of yours, from the very moment that I fell and cut my shin, and you looked at the cut, and at once your majestic mind said to itself, "Door-scraper!" And then you turned and found the very door-scraper that done it! Did you stop there? No. Some people would have been quite satisfied; but not you. Your intellect went on working. "Let me only find a doormat," says you to yourself, "and my theory is proved!" And of course you found your doormat. You're so clever, I believe*

> *you could find anything you liked. "Now," says you, "that door exists, as plain as if I saw it. There's nothing else remains to be done but to find it!" Well, I've read about that sort of thing in books, but I've never come across it before in real life. You ought to go where you'll be properly appreciated. You're simply wasted here, among us fellows. If I only had your head, Ratty –"*
>
> (From Chapter 3. *The Wind in the Willows*, 1908, by Kenneth Grahame)

However, a minute later, the Mole guesses that an approaching sound, inside the door they are now knocking on, is the footsteps of someone wearing very "down at heel" slippers. And he turns out to be right. He should not, therefore, attribute special cognitive ability to the Rat's construction of the house frame from the discovery of the door-scraper: the context gives us reason to suppose that the Rat knows this area better, and may have some idea where Mr. Badger's house is. And the Rat is less fearful and more practical than the Mole, so his cognitive processes had been less disrupted by panic over being alone in the Wild Wood on a snowy night. The Mole certainly should not treat the Rat's space-building processes as conscious and careful reasoning. This kind of frame evocation is likely to happen unconsciously – to the Rat, the door-scraper *was* a sign of a nearby house. To the Mole, thinking of it as a piece of garbage which had somehow strayed away from houses, no such frame was accessible. And once you have one construal in mind, it may be hard to shift to the other one, just as it can be hard to "see" whichever perceptual interpretation of a Necker cube is not the one you're currently processing.

The Mole is completely correct, however, in saying that the Rat's mind felt that the door existed "as plain as if [he] saw it." When a partial pattern evokes a larger whole frame, the certainty of the whole frame's existence may approach that of actual perception. Often it is other contextual factors (like the Rat's general knowledge of the location of Mr. Badger's house) which trigger the connection between a possible frame element and a larger frame. For example, a person with a gun pointed at him who hears the gun-holder say, *Just take ONE more step!* knows that a threat has been issued. But if we suppose the same words to have been uttered by a photographer, trying to re-position a subject for a photo, we might understand them as a simple imperative and not look for a conditional construal at all.

Conditional and coordinate forms have independent functions and are not useful solely as parts of the alternative-based prediction cognitive complex. Similarly, a door-scraper, or the cigarette lighter mentioned in Chapter 1, may be primarily useful for one thing, namely to fill its place in the activities of house maintenance or to light cigarettes. A coordinate construction is a versatile basic building-block of language, which can be exploited in countless ways;

and, as we have seen in preceding chapters, an *if*-conditional is equally versatile. Nonetheless, in the right context, either of these constructions may evoke conditional prediction so strongly as to make that seem the "only" possible reading. Sometimes other formal elements force the predictive interpretation: for example, backshifted verb forms in an *if*-conditional make the interpretation unavoidable. Sometimes context alone is responsible: as we have seen, there are conditionals which are formally ambiguous between predictive and non-predictive readings, and yet functional ambiguity is rare in actual usage.

Let us consider an analogy with one of art history's most celebrated examples of metonymic frame evocation. In Manet's *Olympia*, a beautiful reclining nude woman is offered flowers by another woman. By the nude's jewelry and hairstyle we gather that she is not just lying down to sleep on a hot day; by the other woman's style of clothing, as well as by her dark skin (the nude woman is white), we guess that she is a servant bringing the flowers to her mistress. But the shocking part of the scenario to the picture's initial audience was the flowers, which indicated that a gentleman caller was requesting to enter and see the lady, who apparently was preparing to receive him undressed. Sophisticates with no objection to classical nude statues were nonetheless shocked by this painting; they apparently saw the statues as isolated objects, but this nude was placed in a social framework of illicit sexuality which made her nudity far more disturbing. In mental-spaces terminology, since the depicted world and the outside world of art-viewers are quite distinct spaces, with no possibility for sexual interaction between them (setting aside a magical scenario like the Pygmalion story), real-world male viewing of a depicted nude woman is distant enough from sexual activity not to be shocking. But even the hint of a male visitor's presence in the same space with a naked woman is sufficient to make the possible sexual encounter too obtrusive for nineteenth-century sensibilities.

Crucially, modern viewers have to *learn* to see this shocking aspect of the painting. If sexual morals entered the mind of a twenty-first-century museumgoer looking at *Olympia*, she might be more concerned with the morality of real-world males looking at (even depictions of) nude women, and guess that this was what would have shocked her forebears. The flowers in themselves do not mark sexuality, illicit or otherwise. If we were to see the same flowers in a vase next to a family posed for their portrait, or in a still life, they would not evoke the same frame they evoke in *Olympia*. If, in addition to flowers, we also saw a man's top-hat, or a cane, portrayed somewhere in this painting, we would have added reason to infer the male presence; although, once again, such objects painted in a different setting would not convey sexuality and might not even evoke maleness (the cane might be in the hand of an old lady).

Nineteenth-century viewers had a tightly bound conceptual frame of a male visit to a sexually attractive woman, including the idea that men would normally set aside hats and canes when coming indoors, and that a floral offering indicated admiration of the female recipient. If the depicted woman were dressed, they would still have interpreted the painting as depicting a scenario involving a male visitor but would probably have attributed less explicitly sexual purposes to the visit. In the context of a nude woman, the flowers clearly stated the imminence of illicit sex to Manet's contemporaries. Neither flowers nor nudity alone were objectionable, since alone neither evokes the relevant scenario.

Despite the innocuousness of flowers in isolation, in the context of *Olympia* they seemed to Victorian viewers to inevitably fulfill one specific function, just as an *and*-conditional seems inevitably conditional in context, despite the versatility and generality of *and*. Even a tool with a conventionally narrow function, such as the cigarette lighter in Chapter 1, may develop a different function, which in context seems primary. In the absence of a bottle-opener, someone discovered that this particular cigarette lighter could be used to open bottles. This use then apparently became a convention in the temporary community of the party. Similarly, new constructional uses generally develop from contextual exploitation of new meaning affordances in context. *And*, *or*, and other constructions not devoted to conditionality, together with Gricean reasoning patterns, may prompt conditional reasoning. This context provides a point of departure for special *and*- and *or*-conditional constructions, which can then develop conventional lives of their own as parts of English grammar.

The discussion throughout this book has focused, among others things, on the extent to which thinking and talking about the "Real World" is constantly, pervasively, and inevitably composed of cognition and talk involving other mental spaces besides "Reality." The pervasive presence of evoked imagined spaces explains why the male visitor evoked by Olympia's bouquet – who is not only in an irrealis painting-space, but is not even actually portrayed in the painting – would prove more morally upsetting to Victorian viewers than the actual men visiting the exhibit and looking at the painting. The same mechanism explains the numerous possible types of conditional spaces, regardless of how they are set up. Conditional spaces are used not only to plan future actions, but for a range of other purposes limited only by the speaker's and the hearer's abilities to set up imagined spaces, make connections between spaces, and map useful inferences from one space to another. Tracking epistemic status, as well as time reference and other parameters, lets us note such status at the time of establishment of a new space and allows us to cue mental-space locations of particular participants and events in extant spaces. This need is to some extent

a universal one, since most languages seem to have ways of marking "irrealis" status, even if they have different meaning categories than those labeled by English verb forms or conjunctions.

In the background of all this space construction are shared understandings of particular spaces as accessible. For example, there is the shared understanding of the physical environment of a face-to-face speaker and hearer, which Scott Liddell (1998, 2003) has labeled *real space*. And, as we have pointed out elsewhere (Sweetser 1990, Dancygier and Sweetser 1996, Dancygier 1998), we also access the epistemic space of the speaker's assumed mental processes; the speech-act space of the jointly negotiated construal of the speech interaction; the metalinguistic space of the choice of forms in the interaction; and metaspatial spaces marking the awareness of ongoing mental-space construction. Conditional constructions interact with all of these spaces, and some conditional constructions can mark relations in each of them. The constant accessibility of these spaces, in addition to ones specifically accessible from other contexts, makes thought and language infinitely more versatile. When we consider frame connections and contextual exploitation of affordances, language seems less puzzling in its ability to connect "finite" numbers of conventional forms to infinitely situationally varying meaning.

Out of context, cognitive and linguistic compositionality sometimes seems to proceed in simple additive fashion. But it is not the case that two and two make four every time we put them together in human thought. They might make 22, in the context of the base-ten use of the Arabic numeral system. They might be two sequential digits in a telephone number. Or, if I know full well that there are two more apples in the refrigerator back home, then two Granny Smiths and two Golden Delicious apples bought at the store may justify my saying, *That makes six*. Cognition and linguistic compositionality should be considered as an array of functions, including but not limited to addition. Conditionals give us examples of a multiplicity of space-building strategies. Some are conventionally dictated, some productively motivated by functional affordance of a form in context, some seem motivated by factors relating to human cognition in general and may be universal, and some seem unique to a particular English construction. However, construction of conditional spaces is not an isolated example. Investigating other areas of language usage will surely offer a deeper understanding of how constructional compositionality can inform us of cognitive strategies which underlie it.

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