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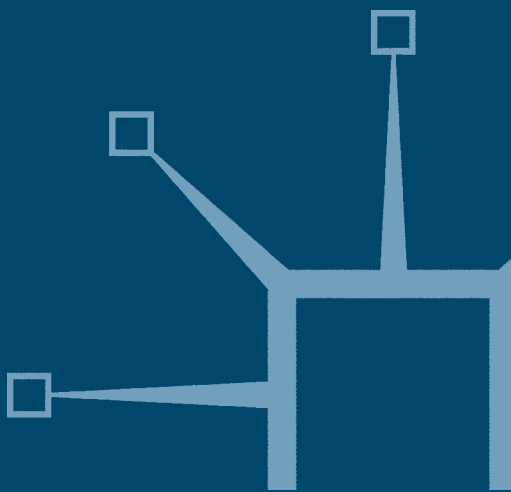
Linguistic Meaning, Truth Conditions and Relevance

The Case of Concessives

Corinne Iten



Linguistic Meaning, Truth Conditions and Relevance

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For Juliet

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1
Linguistic Meaning and Truth Conditions

1.1 Language and the world

It is an intuition shared by many, theorists and ordinary language users alike, that one of the core uses of language is the exchange of information about the world. In linguistics and the philosophy of language this intuition is generally captured by turning to the notions of truth and truth conditions to account for linguistic meaning. As Strawson (1971, p. 178) puts it:

> it is a truth implicitly acknowledged by communication-theorists themselves that in almost all the things we should count as sentences there is a substantial central core of meaning which is explicable either in terms of truth-conditions or in terms of some related notion … .

The point this quote brings out very clearly is that, no matter what the background of a theorist – whether they are trying to say something about the meaning of words or sentences in themselves, or whether they are more interested in what speakers mean when they use words and sentences – sooner or later they find themselves (sometimes reluctantly) making use of the concepts of truth and truth conditions. Given that there are considerable differences in general outlook and basic assumptions among these theorists, it is truly remarkable that truth conditions have played (and still are playing) such an all-pervasive role.[1] As suggested above, the most likely explanation of this is that one, very central, way in which speakers use language is to say something about the world, to describe states of affairs, and considerations of truth or falsity seem to play an obvious role in describing the relation between representations and states of affairs in the world. However, for all their longevity

and all-pervasiveness, the precise role of truth and truth conditions in accounting for linguistic meaning is far from uncontroversial. In part, this is due to another fact observed by Strawson (and many others before and after him):

> even sentences to which the notion of truth-conditions does seem appropriate may contain expressions which certainly make a difference to their conventional meaning, but not the sort of difference which can be explained in terms of their truth-conditions.
>
> (Strawson, 1971, p. 177)

In other words, as soon as linguists or philosophers start to construct an account of natural language meaning in truth-conditional terms, they encounter linguistic elements that are undoubtedly meaningful, but whose meaning does not contribute to the truth conditions of the utterances in which they occur. It is on this type of expression that this book focuses. In broad terms, the aim of the book is to contribute to the debate on the relationship between language and the world. It explores different ways of construing this relationship and ultimately argues for an approach with a strong cognitive component, rather than a purely truth-based one. Linguistic expressions of the sort referred to in the second Strawson quote, what one could term 'non-truth-conditional' elements, are of particular interest in this debate because their existence means that truth-based theories of linguistic meaning can, at best, only account for a subclass (albeit a large one) of all meaningful linguistic devices. The rest of this chapter is devoted to a general discussion of the relationship between linguistic meaning and truth, and an introduction to the phenomenon of 'non-truth-conditional'[2] linguistic expressions.

Before going any further, it is necessary to make it absolutely clear what kind of 'non-truth-conditional' meaning is at issue here: I am primarily interested in linguistic meaning, not in the more general communicative or 'pragmatic' meaning that arises in language use. This is best illustrated with an example. Consider, for instance, the scenario in (1):

(1) [Susan and Mary are talking about Mary's boyfriend Peter]

Susan Is he good at buying you presents?
Mary For my last birthday he bought me a pink scarf, even though I told him that I hate pink.

In this scenario, Mary's utterance will be true if and only if Peter bought her a pink scarf for her last birthday and (before that) she told him that

she hates pink. However, Mary clearly means more than that. She also means (or intends to communicate) that there is some sort of contrast or incompatibility between Peter buying her a pink scarf and her telling him that she hates pink. Furthermore, in the scenario above, Susan will have every justification to assume that Mary also means that Peter isn't good at buying her presents. In other words, there are two aspects of what Mary means here that don't affect the truth conditions of her utterance (and are, therefore, 'non-truth-conditional'): the assumption that there is an incompatibility between the two states of affairs described and the assumption that Peter isn't good at buying Mary presents. The difference between these two aspects of the interpretation of Mary's utterance is that the former arises because of the linguistically encoded meaning of *even though*, while the latter arises because of the particular conversational context in which Mary made her utterance.

No matter what the scenario in which Mary makes her utterance, as long as she uses *even though*, she will always be taken to communicate that there is some kind of incompatibility between the two clauses she uttered. By contrast, if Susan had asked a different question (such as *Does Peter listen to what you say?*), Mary wouldn't have been taken to communicate that Peter is bad at buying her presents (instead, the assumption Susan is most likely to take Mary to be communicating is probably that Peter often doesn't listen to what she says). This example demonstrates the difference between 'non-truth-conditional' meaning that arises **semantically**, that is on the basis of meaning **linguistically encoded** by a constituent of the sentence uttered, and 'non-truth-conditional' meaning that arises **pragmatically**, that is on the basis of particular features of the **context** in which the sentence has been uttered.[3] As mentioned above, the focus of this chapter and the whole book is squarely on the semantic kind of 'non-truth-conditional' meaning and, indeed, on semantics more generally.

In the next Section, I discuss truth-conditional approaches to linguistic meaning. I then point out two challenges for such approaches: linguistic underdeterminacy is the topic of Section 1.3, and the existence of 'non-truth-conditional' linguistic meaning, as mentioned above, is introduced in more detail in Section 1.4. In Section 1.5, I provide a list of kinds of linguistic expressions whose meaning any adequate theory of linguistic semantics should be able to account for, but which have been, or could be, classed as 'non-truth-conditional'. The chapter ends with a brief discussion of whether linguistic expressions fall into two semantic classes according to truth-conditional status. That is,

I will consider whether there are two types of linguistic meaning: the 'truth conditional' and the 'non-truth-conditional'.

1.2 Truth-based approaches to linguistic meaning

Before entering into a discussion of any specific approach to linguistic meaning, it will be useful to recall some 'ground rules' that any theory of linguistic semantics should observe. In particular, there are two principles that are almost universally accepted among linguistic semanticists, namely **compositionality** and **semantic innocence** (see, for instance, Davidson, 1967/1984; Barwise and Perry, 1981). The principle of compositionality states that the linguistic meaning of a complex expression, such as a phrase or a sentence, must be entirely derivable from the meanings of its constituents and their manner of combination. Semantic innocence demands that the linguistic meaning of any unambiguous expression must remain the same across all contexts. Together, these principles ensure the systematicity and productivity of linguistic meanings and thus make them learnable (and, in the case of complex expressions, derivable) given humans' limited cognitive resources. Compositionality and semantic innocence have been given particular pride of place in truth-based approaches to linguistic semantics. However, even the alternative approach taken in later chapters will not challenge their validity as core principles of **linguistic** semantics.[4]

Let me now turn to the main topic of this Section: truth-based approaches to linguistic meaning. Probably the most prominent such approach is Donald Davidson's (1967/1984) truth-conditional theory of linguistic meaning, which is based on the idea that the meaning of a sentence can be captured by specifying what it takes for it to be true. For instance, the meaning of the sentence in (2) may be captured in a Tarskian truth statement of the form in (3). Similarly, the meaning of the German equivalent of (2) can be given in a statement of the sort in (4):

(2) Snow is white. (Tarski, 1944/1996, p. 38)
(3) 'Snow is white' is true if and only if snow is white.
(4) 'Schnee ist weiss' is true if and only if snow is white.

In general terms, the truth condition of a sentence is given by a T-sentence of the form in (5), where *s* is the name of a sentence and *p* the sentence itself (or a translation of it into a metalanguage). (4) illustrates that the metalanguage does not have to be identical to the language of the original sentence.

(5) *s* is true iff *p*.

Assuming compositionality and semantic innocence, the meaning of an unambiguous individual lexical item is taken to be its stable contribution to the truth conditions of the sentences in which it appears. To give an example, the contribution *snow* makes to the truth condition of (2) is taken to be the same as the contribution it makes to the truth condition of (6):

(6) Children like snow.

Roughly speaking, this contribution can be characterised as denoting the cold result of a particular type of wintry precipitation (in other words, the 'stuff' out there in the world).

The truth-conditional picture just outlined assumes a direct language–world relation. Other truth-based approaches, such as that of Gottlob Frege (1892), assume that the relationship between language and the world is mediated by abstract entities, that is, 'senses' or 'propositions'. On such a view, natural language sentences determine senses or propositions (that is truth-evaluable representations), which are in turn related to truth values. Individual lexical items, then, determine the constituents of propositions, or atomic senses, which are related to various entities in the world.[5] Another popular truth-based approach to linguistic meaning is one in which natural language sentences are paired up, not with states of affairs, but with sets of possible worlds (see, for instance, Dowty, Wall and Peters, 1981) and individual lexical items with aspects of worlds. More precisely, the meaning of a natural language sentence is captured by the set of possible worlds in which the sentence is true and individual lexical items are seen as denoting aspects of worlds.

Although there are important differences among these approaches to linguistic meaning, and each has its particular strengths and weaknesses, they share one core assumption, namely that linguistic meaning is best captured in terms of the relation between language and the world, which, in turn, is characterised by the notion of truth. This means that these approaches share some core advantages and disadvantages. Because the truth-conditional theory of Davidson is easiest to grasp intuitively (and quite possibly also the most influential), the rest of this book largely talks about 'truth-conditional', rather than the more general, 'truth-based' approaches.

On the positive side, truth-based theories provide a ready explanation for the generally undisputed intuition that speakers use language to say

things **about** the world.[6] The ways in which they capture this 'aboutness' of language may diverge in detail, but in spirit they are all the same: an utterance can be said to be about the state of affairs in the world that has to hold for the utterance to be true in that world.

On the negative side, there are two problems truth-based theories of linguistic meaning have to contend with. These are linguistic underdeterminacy and the existence of the kind of 'non-truth-conditional' linguistic meaning referred to in the second Strawson quote and exemplified by *even though* in (1).

1.3 The challenge of linguistic underdeterminacy

The problem of linguistic underdeterminacy has its roots in an assumption that the truth-based approaches to linguistic meaning mentioned above have in common, namely that **sentences** are, or completely determine, truth bearers. Indeed, many philosophers don't seem to draw a distinction between sentences and propositions. For most linguists, however, sentences and propositions are two very different types of entity. To a linguist, a sentence is a phono-morpho-syntactic entity – to a Chomskyan linguist, this means that it is a product of a linguistic system, a mentally generated form usable in a range of ways. Sentence meaning (as opposed to utterance meaning) is the meaning yielded by the sentence's constituents and its structure. Propositions, on the other hand, are more abstract entities: they are truth-evaluable representations of states of affairs, which needn't be tied to any linguistic form. For most linguists, sentences, strictly speaking, can't be true or false and, therefore, giving truth conditions for sentences is impossible.

However, the relationship between sentences and truth bearers, such as propositions, might be so simple as to make drawing the distinction a mere formality: sentences might straightforwardly map on to propositions. In other words, sentences may not themselves **be** propositions, but they might **express** them, independent of context. This is the assumption that seems to underlie most (if not all) truth-based approaches to linguistic meaning and it is this that presents such approaches with their first problem: there is good evidence that the relationship between natural language sentences and propositions (or any other kind of truth bearer) is not as straightforward as a direct, one-to-one mapping. To put it differently, natural language sentences **underdetermine** truth-conditional content. This is captured in the linguistic underdeterminacy, thesis, discussed by such authors as François Recanati (1993), Kent Bach (1994) and Robyn Carston (most comprehensively in 2002).

Since the primary focus of this book is on 'non-truth-conditional' linguistic meaning, I will not dwell at length on the question of linguistic underdeterminacy, but it merits some attention here because it affects the way it is possible for truth conditions to account for linguistic meaning. That is, the fact that the encoded linguistic meaning of a sentence or expression is seldom identical to its truth-conditional import casts strong doubt on truth-based approaches to linguistic meaning.

The most obvious way in which natural language meaning underdetermines truth-conditional content is through indexicality. For instance, the linguistic content of (7) alone does not determine anything ordinary speakers would recognise as the truth-conditional content of the utterance:

(7) She likes chocolate.

At best, a speaker of English would be able to specify a set of necessary, but not sufficient, conditions for the truth of (7): some female entity must like the stuff that is chocolate.[7] Whether it could be said that this is, therefore, the truth-conditional content of the utterance will be discussed in more detail shortly. It seems that, taken out of context, this sentence doesn't express a proposition whose truth would guarantee the truth of the sentence.[8] However, it is indisputable that an utterance of it on a particular occasion will express such a proposition. Indeed, depending on the context, it could express any number of different propositions, for instance, any of (8)–(10):

(8) SUE$_x$ LIKES CHOCOLATE.[9]
(9) (MARGARET THATCHER)$_x$ LIKES CHOCOLATE.
(10) (ZOË BALL)$_x$ LIKES CHOCOLATE.

The special status of indexicals and other expressions that are context dependent as a matter of their encoded linguistic meanings has long been recognised by proponents of truth-conditional approaches to linguistic meaning and a number of different solutions have been proposed. All such solutions share the assumption that sentences containing indexicals can only be given truth conditions relative to a context. There are, however, differences in the status accorded to speakers' intentions in accounting for the truth conditions of indexicals. Possibly the most famous account of indexicals, that of Kaplan (1989a, 1989b), makes a distinction between pure indexicals and demonstratives. On this view, *I*, *here* and *now* are pure indexicals – their linguistic meaning does

practically all the work needed to assign reference in a particular context of use. For instance, all a hearer needs to do to assign reference to an utterance of *I* is determine who is making the utterance. Quite generally, the idea is that all a pure indexical needs for reference to be assigned and truth conditions to be determined is the value of some contextual parameter. The claim is that the speaker's intentions needn't be taken into account. By contrast, in order to assign reference to an utterance of *she*, a hearer has to put in a good deal of inferential work; the linguistic meaning of *she* merely tells him that he is to look for a relevant female referent. Assigning reference to *she* and other 'non-pure' indexicals or demonstratives requires recourse to the speaker's intentions.

Perry (1998) captures the differences among indexicals in terms of two distinctions. First, he distinguishes between indexicals that call on narrow context (including speaker, addressee, time and place of utterance) for reference assignment and those that call on wider context. Second, he distinguishes between indexicals that involve speaker intention for reference and those that don't; he calls the first 'intentional' and the second 'automatic'. This means that, theoretically, there could be four types of indexical: intentional indexicals that call on narrow context; intentional indexicals that call on wider context; automatic indexicals calling on narrow context; and automatic indexicals calling on wider context. In this framework, Kaplan's pure indexicals are examples of automatic indexicals that involve narrow context. However, Perry (1998, p. 5) points out that *here* and *now* do not clearly fall on the automatic side as they seem to require reference to speaker intention in order to determine how big an area *here* is meant to designate and how large a time span *now* refers to on a given occasion. In other words, *here* and *now* are more likely to be examples of intentional indexicals that call on narrow context. *He*, *she* and other third-person pronouns are examples of intentional indexicals that call on wider context. It's not clear whether there are any automatic indexicals that call on wider context. A potential candidate would be the demonstrative pronouns *this* and *that*. However, they can only be construed as automatic indexicals if one assumes that such a thing as 'the entity indicated by the speaker' is part of the wider context and that working out what is indicated by the speaker does not involve reference to the speaker's intentions. Both of these assumptions are highly dubious. I will return to the topic of indexicality and what counts as a pure indexical in Section 2.3.

The question of whether reference assignment requires recourse to a speaker's intentions matters for the following reasons: a number of

semanticists, for instance, Cappelen and Lepore (2004) maintain that indexicality poses no threat to the claim that linguistic meaning determines truth conditions because 'recourse to context … is directed and restricted by conventional meaning alone.' This claim is cast into doubt by considerations such as Perry's concerning *here* and *now*. Indeed, it seems far too strong a claim for demonstratives, to which reference surely cannot be assigned without taking into account the speaker's intentions. In fact, even if it were the case that no consideration of speaker intention is needed in assigning reference, the fact remains that truth conditions cannot be assigned to **sentences** containing indexicals, but only to **sentences in context** or **utterances**.[10] Given this, it seems doubtful that the linguistic meanings of all expressions can be accounted for by specifying the contribution they make to the truth conditions of the sentences in which they occur, because some sentences cannot be given truth conditions.

The examples in (11)–(15), all taken from Carston (2002, p. 22), pose a further challenge to truth-conditional approaches to linguistic meaning. Here, too, it seems to be impossible to specify the necessary and jointly sufficient conditions for the truth of the examples without making reference to the context of utterance and, crucially, the speaker's intentions:

(11)	Paracetamol is better.	[than what?]
(12)	It's the same.	[as what?]
(13)	She's leaving.	[where?]
(14)	He is too young.	[for what?]
(15)	It is raining.	[where?]

What distinguishes these examples from those involving overt indexicals is that there is nothing in the surface grammatical form that indicates the need for extra material. For this reason, one might call the missing parts 'unarticulated constituents' (after Perry, 1986), although, as will be discussed below, there is some doubt whether all of these constituents are truly unarticulated.

In all of the examples above, linguistic meaning alone does not seem to be enough to establish truth-conditional content, or to determine the proposition the speaker intended to express. However, Cappelen and Lepore (2004) and Borg (forthcoming) both doubt this assumption. That is, they maintain that, unlike sentences containing indexicals, the sentences in (11)–(15) can be given truth conditions out of context,

namely those in (16)–(20):[11]

(16) 'Paracetamol is better' is true iff Paracetamol is better.
(17) 'It's the same' is true iff the entity referred to by *it* is the same.
(18) 'She's leaving' is true iff the person referred to by *she* is leaving.
(19) 'He is too young' is true iff the person referred to by *he* is too young.
(20) 'It's raining' is true iff it is raining.

These authors maintain that while these may not be **the truth conditions the speaker intended**, they are, nevertheless truth conditions, indeed the only **semantically relevant** truth conditions. For ease of exposition, I will refer to this view as Minimal Semantics.

Minimal Semantics has some curious consequences. First, the link between the actual truth conditions of sentences and the truth conditions native speakers would assign to them is severed: native speakers' intuitions are no longer a measure of semantic theories. Now, I don't believe that this is necessarily very problematic, but it does open up the question of how we ever know what a particular sentence means. Second, because the literal meanings of sentences such as those in (11)–(15) are captured by minimal truth conditions of the sort given in (16)–(20), there are a large number of natural language sentences that are never used literally. Moreover, speakers use them non-literally (and hearers understand them that way) without ever becoming aware of any non-literality. Finally, it seems more than a little strange that minimal semanticists are adamant that sentences of the sort above can be given truth conditions out of context, when they are happy to accept that sentences containing indexicals only have truth conditions in context. It almost seems as though minimal semanticists are struggling to hold on to an assumption in the case of 'unarticulated constituents' that they have to concede anyway in order to account for sentences containing indexicals.

While minimal semanticists try to hang on to the idea that sentences can be given truth conditions, another way of trying to avoid the problem of linguistic underdeterminacy while maintaining the fundamental truth-conditional assumption is to claim that while **sentences** may not be the bearers of truth conditions **utterances** of sentences in **context** are. The naïve version of this would attempt to explain the stable meaning of a linguistic expression by making reference to the contribution it makes to the truth conditions of the utterances in which it occurs.[12] This is obviously doomed to failure because, as indexicals demonstrate

nicely, the linguistic meaning of an expression may be stable, while the contribution it makes to the truth conditions of the utterances in which it occurs changes from context to context. Exactly what this contribution is, more often than not, depends on the intentions of the speaker: whether (7) is true if and only if (8) is true or if and only if (9) is true depends crucially on the speaker's intentions.[13] The problematic thing about this is that, given the right circumstances, speakers can mean different things on different occasions even by linguistic expressions that have nothing indexical about them. For instance, taken out of context, that is, just looking at its linguistically encoded meaning, it's uncontentious that *bachelor* means 'unmarried adult male'. However, as Carston (1996a, 2002, ch. 5) points out, speakers often use expressions to mean something more restricted or something looser than their encoded meaning. Consider the scenarios below:

(21) [Susan is desperate to get married and have children]

Peter Do you think Susan will come to my party?
Mary She only goes to places where there are lots of bachelors.

(22) [Mary about her husband Tom, who drives a sports car, keeps a pig sty of a study and regularly stays out all night drinking with his friends]

Mary He is such a bachelor.

In (21), Mary clearly isn't talking about just any kind of unmarried adult male – it's highly unlikely that Mary thinks Susan would be thrilled to visit a monastery or a gay club, both of which are more than likely to be teeming with unmarried adult males. The kind of bachelor Mary is talking about here is only a subset of all unmarried adult males, that is, straight, youngish unmarried males who are willing to get married. In other words, what she means is something more restricted than the linguistically encoded meaning of *bachelor*.

In (22), on the other hand, Mary means at the same time something looser and something richer than 'unmarried adult males' – the extension of *bachelor* is loosened to include Tom, a married adult male, but it is also restricted to exclude non-stereotypical unmarried adult males (for example those who are responsible, tidy and considerate). The problem that examples of this sort present for the enterprise of capturing the meanings of natural language expressions by specifying their contributions to the truth conditions of the utterances in which they occur is obvious: the expressions seem to have stable linguistic meanings

(without being indexical), but their contributions to truth conditions of utterances are not stable. Moreover, they're not straightforward functions of some contextual parameter, but they crucially depend on the speaker's intentions.

Higginbotham (1988) proposes a more sophisticated approach that also essentially provides truth conditions for utterances of sentences rather than sentences themselves. Following Burge (1974), he suggests an approach to sentences containing indexicals in terms of conditional truth conditions. For instance, the truth conditions of the sentence in (7) are given by (23):

(23) If *x* is referred to by *she* in the course of an utterance of (7), then that utterance is true just in case like (x, chocolate).

This has the advantage that it avoids the problem of writing more than the stable linguistic meaning of *she* into the grammar. In fact, as it stands, it falls short of capturing the full extent of the linguistic meaning of *she*. If (23) says all there is to say about the meaning of (7), then all indexicals will come out as synonymous. *She* in (7) and (23) could be replaced by any other indexical and the conditional truth conditions would remain the same. For instance, the truth conditions of (24), (25) and (26) would, *mutatis mutandis*, all be the same as those of (7):

(24) He likes chocolate.
(25) It likes chocolate.
(26) You like chocolate.

Recognising this problem, Higginbotham (1988, p. 35) suggests a way of capturing the differences among indexicals: he replaces (23) with (27):

(27) If *x* is referred to by *she* in the course of an utterance of (7), and *x* is female, then that utterance is true just in case like (x, chocolate).

This does, of course, allow one to distinguish different indexicals. For instance, the truth conditions for (24) would now be:

(28) If *y* is referred to by *he* in the course of an utterance of (24), and *y* is male, then that utterance is true just in case like (y, chocolate).

It is conceivable that this approach would allow the theorist to capture the differences among different types of referring expressions. However, I have reservations about the fact that this account requires the referent

to meet certain conditions, for instance that of being female in the case of *she*, before any truth conditions can be assigned at all. It seems at least possible that an utterance of (7) in which the speaker intends to refer to a male dog, say, could still be judged true if and only if the animal referred to likes chocolate. However, (as hinted at in note 10) this kind of example is likely to be problematic for any account of indexicals and it should probably not be given too much weight in evaluating Higginbotham's proposal.

Non-indexical examples, such as (11)–(15), pose a more serious problem. How could one, for instance, capture the truth conditions of (11)? I can imagine only one way in which this could be done in conditional truth conditions, and that is along the lines of (29):

(29) If $x = a$ in the course of an utterance of (11) with logical form *Paracetamol is better than x*, then (11) is true iff better-than (Paracetamol, a).

In other words, it is only if one assumes that the underlying logical form of (11) contains a variable even though the surface form doesn't, that examples of this sort can be accounted for with the use of conditional truth conditions. However, this solution, applied across all such cases, comes at the cost of positing a lot of hidden indexicals at the level of logical form. In fact, I believe that for words such as *better* there is a reasonably good case for postulating hidden indexicals. However, Bach (2000), Recanati (2002) and Carston (2000), give a number of good arguments against the view that the problems posed by sentences that don't express complete propositions can all be solved by postulating hidden indexicals.

Things get even worse when it comes to accounting for the truth conditions of Mary's utterances in (21) and (22). Recall that the word *bachelor* makes different contributions to the truth conditions of these utterances: in (21), it denotes the set of straight, youngish unmarried adult males interested in getting married; in (22), it denotes the set of inconsiderate, messy, selfish, irresponsible adult males who either are unmarried or behave as though they are. Now, of course, no-one is suggesting that the linguistic meaning of *bachelor* is anything other than a concept corresponding to 'unmarried adult male'. Thus, if one were in the business of giving truth conditions for sentences out of context, these examples would not present any problems. However, Higginbotham (1988) takes seriously the context-dependent nature of natural language and therefore attempts to give truth conditions for utterances of

sentences containing indexicals. This is where the problem lies. For instance, giving the truth conditions for Mary's utterance in (22) necessarily makes reference to the speaker's intentions. It is thus not possible to take *bachelor* as contributing nothing more than 'unmarried adult male' to the utterance's truth conditions (that would get them wrong). However, it is far from clear how one could give truth conditions for the specific use of *bachelor* Mary has in mind here. The only option I can come up with is something along the lines in (30):

(30) If in an utterance of 'He is such a bachelor' *he* refers to *x* and the speaker intends *bachelor* to mean *inconsiderate, selfish, irresponsible, messy adult males who either are unmarried or behave as though they are*, then the utterance will be true if and only if x is an inconsiderate, selfish, irresponsible, messy adult male who either is unmarried or behaves as though he is.

Apart from the fact that this is circular, in the sense that there is a large chunk of material that is present both on the left-hand side and on the right-hand side of the conditional, it also fails to do what other conditional T-sentences, such as (27), do. While (27) provides a schema on the basis of which one can work out the truth conditions of every utterance of *she likes chocolate,* (30) doesn't do the same thing for utterances of *he is such a bachelor*. That is, it only provides a means for working out the truth conditions of the subset of utterances of the sentence *he is such a bachelor* in which the speaker intends *bachelor* to denote the set of inconsiderate, selfish, irresponsible, messy adult males who either are unmarried or behave as though they are. In other words, while (27) could conceivably capture part of an English speaker's semantic competence, (30) couldn't.

Given the considerations above, it seems that the enterprise of capturing the meaning of linguistic devices in terms of the contribution they make to the truth conditions of the sentences or utterances in which they occur can't succeed: sentences taken out of context cannot be assigned complete, determinate truth conditions that capture either the complete linguistic meaning of the sentence or the proposition the speaker intended to express. Utterances can, but the problem is that the contributions linguistic devices make to the truth conditions of the utterances in which they occur are not stable across contexts.[14] This might lead one to abandon the notion of truth conditions altogether in accounting for sentence or utterance meaning. In fact, ultimately

Anscombre and Ducrot's Argumentation Theory does just that (for discussion, see Iten, 2000a). However, I believe that such a conclusion is not necessary. Indeed, given that truth-based accounts do such a good job of capturing the aboutness of language, it may not be very desirable.

All that the evidence presented here indicates is that sentence meanings and the linguistic meanings of sentence constituents, as they are actually used by speakers, cannot be accounted for in truth-conditional terms alone. Of course, it is any theorist's prerogative to leave aside the complications of actual language use and the 'messiness' of speaker intentions and study language as a platonic, idealised, abstract object (see, for instance, Katz, 1984). Doing that, it may be possible to give an entirely (or at least primarily) truth-conditional linguistic semantics. This is not an option for those who, like myself, are interested in a psychologically real account of linguistic processing and utterance interpretation. However, even if it turns out that truth conditions play no psychological role in utterance interpretation, it would be foolish in the extreme to discount the wealth of insights offered by traditional truth-conditional approaches to linguistic meaning.

In Chapter 3, I will outline the cognitive approach taken by Sperber and Wilson's (1986) Relevance Theory, which preserves the advantages of truth-based approaches (in particular, the ability to capture aboutness), while also taking seriously the context-dependent nature of natural language and the importance of speaker intentions in linguistic communication.

1.4 'Non-truth-conditional' linguistic meaning

As mentioned above, the challenge posed by linguistic underdeterminacy and context dependence can be avoided by accounts that concentrate on language as an abstract object and have no interest in explaining language use. The same cannot be said for the second big problem for truth-based approaches to linguistic meaning: the existence of 'non-truth-conditional' linguistic meaning.

The consensus position among different truth-based theories is that sentence meaning can be accounted for by making reference to truth (be it in the guise of truth conditions, possible worlds, or propositions). As mentioned at the beginning of Section 1.2, there is also widespread agreement (not just in the truth-based literature) that the linguistic meaning of a sentence must be accountable for compositionally, on the

basis of the meanings of its constituents and their manner of combination. For an approach on which sentence meaning is given in terms of truth, this means that expression meaning must be given in terms of the contribution the expression makes to the truth properties of the sentences in which it occurs. In order to safeguard the other cornerstone of linguistic semantics, semantic innocence, that contribution must be assumed to be constant across contexts. It goes without saying that this assumption is problematic for indexicals and other context-dependent expressions: the contributions they make to the truth properties of their host sentences are not stable across contexts. This does not, however, mean that their linguistic meanings aren't stable across contexts. It merely means that, if the semantic innocence of linguistic meanings is to be maintained, the linguistic meanings of context-dependent expressions can't be accounted for in terms of their contributions to the truth properties of sentences. In other words, they have to be given a 'non-truth-conditional' account.

As mentioned in Section 1.2, there are other linguistic expressions that present a problem for the programme of defining lexical meaning in terms of contributions to truth conditions or propositions expressed. These are not expressions whose truth-conditional contribution changes with context, but expressions that don't seem to affect the truth properties of their host sentences or utterances at all.[15] An example of this is *even though* (for instance, as used in (1)). Indeed, there are a large number of linguistic items, which are clearly meaningful, as a matter of linguistic encoding rather than some more general social convention, without, however, contributing to the truth properties of their host sentences/ utterances. The linguistic meanings of these expressions are as likely to be stable across contexts as the meanings of other expressions and there is every reason to believe that sentence meaning can and should still be accounted for purely on the basis of the meanings of the sentence's 'truth-conditional' and 'non-truth-conditional' constituents and their manner of combination. What does not seem possible is that the meanings of all of these constituents can be accounted for in terms of truth conditions. Thus compositionality and semantic innocence are not threatened by the problems that beset truth-based approaches to linguistic meaning.[16] In the following section, I will list and briefly discuss a range of different types of expressions that could be loosely classed as 'non-truth-conditional'. In Section 1.6, I will consider whether 'non-truth-conditional' is a useful label for semantic classification.

1.5 'Non-truth-conditional' linguistic expressions

1.5.1 Indexicals

(31) *He* saw *her yesterday*.[17]
(32) *I* 'll have some of *that*.

As mentioned above, the stable linguistic meanings of pronouns and indexicals, such as *he*, *her* and *yesterday* in (31) and *I* in (32), cannot be captured in terms of their contributions to the truth conditions of the utterances in which they occur. Nevertheless, they clearly **constrain** truth-conditional content by indicating something about the referent that is to be supplied. The same is true of demonstratives, for instance *that* in (32). Such context-dependent expressions vary in how narrowly they constrain reference assignment and how much is left to the hearer to work out inferentially. As mentioned in Section 1.3, this is captured by Kaplan's (1989a, 1989b) classic distinction between pure indexicals and demonstratives.

Probably because indexicals (and demonstratives) do affect truth conditions, many theorists who have discussed 'non-truth-conditional' meaning have not included pronouns in this category.[18] However, because accounting for their linguistically encoded meanings requires more than specifying how they affect truth-conditional content, I'm including them here. At this point, the reader might wonder about the status of proper names and definite descriptions, such as *Peter* and *the book* in (33):

(33) *Peter* burnt *the book*.

Both types of expression are routinely used to refer and thus share an important property with indexicals. However, the reason proper names are not included here is that it's not clear that they have linguistic meaning in the same sense as indexicals (see, for instance, Recanati 1993, pp. 149–52). Definite descriptions are omitted because there is good evidence that they are not semantically referential and do, in fact, have truth-conditional linguistic meaning.[19]

1.5.2 Mood indicators

(34) Shut the door.
(35) Do you like chocolate?

It is an obvious and universally accepted fact that utterances of sentences like (34) and (35) cannot be given truth conditions at all. Clearly, there is no state of affairs in the world that has to hold in order for (34) or (35) to be true, because they are simply incapable of being either true or false. Requests[20] can't be true or false, they can only be complied with or disregarded. Similarly, questions can be answered or not, but truth or falsity cannot be attributed to them. However, as has been noted by many linguists, questions and requests clearly have related propositions, which can be given truth conditions.[21] It seems uncontentious that (34) is closely related to a proposition along the lines of (36) and (35) to (37):

(36) X_{HEARER} SHUTS DOOR_{Y}
(37) X_{HEARER} LIKES CHOCOLATE

Roughly, what an utterance of (34) will communicate can be paraphrased as in (38) and what is communicated by an utterance of (35) as in (39):

(38) The speaker is requesting the hearer to shut the door.
(39) The speaker is asking whether the hearer likes chocolate.

In fact, it seems unlikely that the meaning of words such as *shut*, *door*, *like* and *chocolate*, which are clearly 'truth conditional', should be different when these words are used in non-declarative sentences – quite apart from the fact that an account postulating this would violate semantic innocence, of course. The element of meaning which doesn't contribute to truth conditions is the non-declarative syntax in the cases of (34) and (35). In this respect, mood indicators are similar to indexicals and demonstratives: neither of these types of element **contribute** their meanings to the truth conditions of the utterance. However, indexicals and demonstratives **constrain** them, while mood indicators don't. Rather, they seem to indicate the speaker's attitude to the proposition expressed or the type of speech act she intends to perform. In other words, they indicate that a given utterance is a question, request or assertion and therefore determine whether the utterance can be given truth conditions at all. The relationship between mood indicators and truth conditions will be examined further in Section 3.5.

1.5.3 Illocutionary and attitudinal adverbials

(40) *Frankly*, Peter is a bore.
(41) *Sadly*, I can't stand Peter.

(42) *Fortunately*, Mary was able to repair the car.
(43) *Regrettably*, Mary was unable to repair the car.

Examples containing illocutionary adverbials, such as *frankly*, and attitudinal adverbials, such as *sadly*, *fortunately* and *regrettably*, are different from examples like (34) and (35): unlike the examples in the previous Section, utterances of sentences like (40) and (41) can be given truth conditions. However, it is not clear that *frankly* will figure in the truth conditions of (40), or that *sadly* will contribute to those of (41), and the same goes for *fortunately* in (42) and *regrettably* in (43). There is a sense in which the truth of all these utterances primarily depends on the truth of the proposition expressed by the sentence minus the illocutionary or attitudinal adverbial. For instance, an utterance of (40) seems to communicate both (44) and (45):

(44) PETER$_X$ IS A BORE
(45) Y$_{SPEAKER}$ IS SAYING FRANKLY THAT PETER$_X$ IS A BORE

Its truth or falsity, however, depends only (or at least primarily) on the truth or falsity of (44). Similar observations can be made about the other examples. The intuition that illocutionary and attitudinal adverbials don't contribute to, or affect the truth conditions of, the utterances in which they occur is not uncontroversial and these cases will be discussed in more detail in Chapter 2.[22]

Before moving on, there is an interesting difference between *frankly* and *sadly*, on the one hand, and *fortunately* and *regrettably*, on the other, that should be pointed out. As (46) and (47) show, both *frankly* and *sadly* do contribute to the truth conditions of utterances containing them when they function as manner adverbials. This raises the question of whether these expressions are ambiguous. I will suggest a negative answer to this question in Section 1.6.

(46) Peter spoke frankly.
(47) Mary smiled sadly.

Interestingly, utterances in which *fortunately* and *regrettably* contribute to the truth conditions of utterances containing them are extremely rare, though not completely non-existent, as (48) and (49) show:

(48) Things turned out most fortunately.
(49) She left regrettably soon after she arrived.

1.5.4 Illocutionary and attitudinal particles and interjections[23]

While it might be debatable whether or not illocutionary and attitudinal adverbials affect the truth properties of the sentences in which they occur, it seems uncontentious that illocutionary and attitudinal particles and interjections do not, or at least not in the standard way.

(50) *Oh*, you're such a bore.
(51) Peter is an interesting man, *huh*!
(52) You like Peter, *eh*?
(53) *Alas*, I can't stand Peter.

Some illocutionary particles, *eh* and *huh* for example, seem to have an effect similar to that of non-declarative syntax. Thus *eh* roughly has the effect of turning (52) into a question.[24] Others, for example *oh* and *alas*, function more like illocutionary and attitudinal adverbials. *Alas* has an effect very similar to that of an attitudinal adverbial like *regrettably*, while *oh* seems to be capable of expressing emotions ranging from surprise to contempt.

With the exception of indexicals, all the elements discussed so far have one thing in common, namely the fact that their use results in the construction of a higher-level representation in which the proposition expressed by the utterance is embedded. So, an utterance of an interrogative sentence such as (35) can be said to communicate the higher-level representation in (54):

(35) Do you like chocolate?
(54) Y_{SPEAKER} IS ASKING X_{HEARER} WHETHER X LIKES CHOCOLATE

Similarly, as mentioned above, an utterance of (40) is likely to communicate (45). However, in addition it is also likely to communicate (44), which corresponds to the (primary) truth-conditional content of the utterance:

(40) Frankly, Peter is a bore.
(45) Y_{SPEAKER} IS SAYING FRANKLY THAT PETER_X IS A BORE
(44) PETER_X IS A BORE

Finally, an utterance of (42) is likely to communicate (55) and (56):

(42) Fortunately, Mary was able to repair the car.
(55) MARY_X WAS ABLE TO REPAIR THE CAR_Y
(56) IT IS FORTUNATE THAT MARY_X WAS ABLE TO REPAIR THE CAR_Y

This brings out an interesting difference between utterances like (35) and those like (40) and (42). All of them **express** propositions, that is they have a recognisable basic **propositional content**, but speakers uttering (34), (35), (51) and (52) don't **communicate** this propositional content (or proposition expressed), while (40)–(43) and (50) do. Some explanation will have to be given as to why this should be the case. This question will be considered in some detail in Chapter 3.

1.5.5 'Presuppositional' expressions

While the linguistic devices discussed in Sections 1.5.2–1.5.4 could all be seen as encoding information about the speaker's attitude to the proposition expressed, many of the expressions to be discussed in this Section encode information about the speaker's attitude towards an entity in the world. As for all expressions discussed in this Section, the 'presuppositional' elements italicised in the examples below make their contribution to the interpretation of utterances without affecting their truth-conditional content. For example, (57) and (58), if uttered in the same context, will both be true if and only if Peter repaired the car. The fact that (58) implies that this was difficult does not affect the utterance's truth-conditional content:

(57) Peter repaired the car.
(58) Peter *managed* to repair the car.

Unlike the linguistic devices discussed in Sections 1.5.2–1.5.4, *manage* does not result in a higher-level representation embedding the propositional content of the rest of the utterance. Rather, it leads to an entirely independent proposition being communicated, in this case, something along the lines of (59):

(59) IT WAS DIFFICULT FOR PETER$_X$ TO REPAIR THE CAR$_Y$

As mentioned above, this proposition does not seem to be part of the truth-conditional content of the utterance and yet it is not a conversational implicature of the type exemplified in Section 1.1 because it is a direct result of the linguistic meaning of a particular expression. In fact, Stalnaker's (1974) notion of pragmatic presupposition seems to come closest to what I have in mind here: the extra proposition that isn't asserted could be seen as being taken for granted, or presupposed, by the speaker. However, this does not apply equally to all the examples to be discussed here. Furthermore, the issue of presuppositions is a thorny

one and much has been written on the topic. For the time being, the description matters more than the label, hence the inverted commas around 'presuppositional' in the title to this subsection.

The next set of examples are 'presuppositional' much in the same way as *manage*. The fact that (61) implies that one wouldn't have expected John to be there as early as the time of utterance, while (60) doesn't, is not a matter of the truth conditions of these utterances:

(60) John is here.
(61) John is here *already*.
(62) Jane isn't here.
(63) Jane isn't here *yet*.

Analogously, it is not part of the truth conditions of (63) that Jane is expected to get there. Both these assumptions could be seen as being presupposed rather than asserted by the speaker.

The truth-conditional content of (64) and (65) is also the same, and essentially equivalent to that of (66):

(64) You'll be *spared* a lecture.
(65) You'll be *deprived* of a lecture.
(66) You'll not be given a lecture.

The extra propositions communicated or presupposed by the use of *spare* and *deprive* are special in that they concern the speaker's attitude towards an object, in this case the lecture: it is positive for *deprive* and negative for *spare*.

Examples (68) and (70) also express (negative) attitudes towards entities in the world, which are not necessarily expressed in utterances of their truth-conditional equivalents (67) and (69):

(67) Some dog ate my steak.
(68) Some *cur* ate my steak.
(69) Peter ate my steak.
(70) *That bastard* Peter ate my steak.

What is less clear is that these negative attitudes are presupposed in the same sense as they are in the examples discussed so far. Still, they are communicated without being asserted or conversationally implicated, and there may be a sense in which that counts as presupposing.

A similar observation can be made about the final set of examples to be considered here. If any of (71)–(74) are uttered by the same speaker to the same addressee, in the same scenario, they will be true in exactly the same circumstances:

(71) Je *t'*aime.
(72) Je *vous* aime.
(73) Ich liebe *dich*.
(74) Ich liebe *sie*.
'I love you.'

Rather than differing with regard to whether they express positive or negative attitudes, these examples differ in the degree of familiarity assumed between speaker and hearer: (71) and (73) imply a greater degree of familiarity between the speaker and the hearer than (72) and (74). Again, this is not communicated as part of the utterance's truth-conditional content and yet it is still due to the linguistically encoded meaning of the italicised expressions. Again, it could be doubted that these assumptions regarding the relationship between speaker and hearer are genuinely 'presupposed', but they're certainly not asserted. Examples of this sort and various notions of presupposition will be discussed in more detail in Section 2.4.

1.5.6 Focus particles

The focus particles *even*, *too* and *also* in (75), (76) and (77) below do not make a difference to the truth conditions of their host utterances.[25] All three utterances will be true if and only if John came to the party:

(75) *Even* John came to the party.
(76) John came to the party *too*.
(77) John *also* came to the party.

These focus particles share with the expressions discussed in the previous Section the fact that they result in an extra proposition being communicated which isn't a higher-level representation. In that sense, they are 'presuppositional' too. However, I have put them into a different Section because they have focus properties, which means that the exact content of the extra proposition being communicated depends on where the focus lies. For example, assuming that the focus of *even* in (75) lies on *John*, the utterance seems to suggest that John's coming to the party is less likely than other people coming to the party. Were the focus on

came to the party, as in the most natural reading of (78), the extra assumption would be that John's coming to the party was less likely than his doing some other things he did:

(78) John even came to the party.

Too and *also* in (76) and (77) both seem to indicate, depending on what they are taken to focus on, that John wasn't the only person to come to the party, that the party wasn't the only event John came to, or that coming to the party wasn't the only thing John did.

1.5.7 Connectives

Non-logical connectives, sometimes also referred to as 'discourse' or 'pragmatic' connectives or markers (see Blakemore, 2002), as they appear in (79) to (84) can be seen as conveying additional propositions too:

(79) Peter is a bore *but* I like him.
(80) I like Peter *although* he's a bore.
(81) Peter is a bore. *Nevertheless*, I like him.
(82) Peter is a bore. *However*, I like him.
(83) You'll like Peter. *After all*, you're into bores.
(84) You seem to go for bores. *So*, you'll like Peter.

For instance, *but* in (79) could be seen as leading to the proposition that there is a contrast or incompatibility between Peter being a bore and the speaker liking him. Since these extra propositions all seem to concern the way in which the truth-conditional contents of two clauses or sentences relate to each other, they might more usefully be considered separately from 'presuppositional' expressions.

Of course, what all these connectives have in common with the other italicised expressions in this Section is that they do not affect the truth-conditional content of the sentences or clauses they connect. So, for instance, the proposition expressed by an utterance of (79) will be true just in case Peter is a bore and the speaker likes him. The extra assumption, communicated by the use of *but*, something along the lines of there being a contrast or incompatibility between Peter being a bore and the speaker liking him, is not part of the truth conditions of the utterance.[26]

The examples in (79)–(82) highlight a striking property of 'non-truth-conditional' connectives: many of them seem to have very similar meanings or result in very similar interpretations, without, however, being entirely interchangeable in all contexts.[27] Thus, *but*, *although*, *nevertheless*

and *however* all seem to indicate some incompatibility between the clauses/sentences they connect. For this reason, they could all be classed as 'adversative' or 'concessive' connectives – a subclass of 'non-truth-conditional' expressions which I will focus on in later chapters.[28]

1.6 A semantic class of 'non-truth-conditional' linguistic expressions?

The very disparate nature of the linguistic devices listed in Section 1.5 raises the question of whether there is such a thing as a semantic class of 'non-truth-conditional' expressions. Clearly, truth-based approaches to natural language semantics suggest that there should be: the 'normal' case is an expression whose stable linguistic meaning can be given by specifying how the expression contributes to, or affects, the truth properties of its host sentences. All other expressions are 'non-truth-conditional'.

The reality of linguistic underdeterminacy, however, means that **sentences** cannot be given truth conditions out of context. As a consequence, the only truth conditions that are available to the theorist for inferring the truth-conditional meaning of an individual expression are **utterance** truth conditions. As discussed in Section 1.3, the problem with this is that utterance truth conditions, and, crucially, the contributions individual expressions make to them, are highly context dependent.

More serious for the enterprise of defining a semantic class of 'truth-conditional' or 'non-truth-conditional' expressions, this context dependence of truth conditions doesn't just stretch to **how** but also to **whether** a given linguistic expression affects truth conditions. Illocutionary and attitudinal adverbs are a case in point: in (40), *frankly* doesn't seem to affect the primary truth conditions; in (46) it clearly does:

(40) Frankly, Peter is a bore.
(46) Peter spoke frankly.

This raises the question of whether *frankly* should be classified as semantically 'truth conditional' or as 'non-truth-conditional'. One way of dealing with this would be to say that expressions of this sort are lexically ambiguous between a 'truth-conditional' and a 'non-truth-conditional' meaning. But surely that is not a plausible or desirable solution. *Frankly* contributes something along the lines of IN A FRANK MANNER to the interpretations of both utterances. It's just that in the case of (40) this appears in the higher-level proposition $Y_{SPEAKER}$ IS SAYING IN A FRANK MANNER

THAT PETER$_x$ IS A BORE, rather than at the level of the proposition expressed.[29] This, and the very disparate nature of the range of linguistic expressions that could/should be classed as 'non-truth-conditional', casts some serious doubts on the usefulness of the 'truth-conditional'/'non-truth-conditional' distinction as a tool for (linguistic) semantic classification. It seems that there are just too many differences among indexicals, mood indicators, illocutionary and attitudinal adverbials, illocutionary and attitudinal particles, 'presuppositional' expressions, focus particles and 'non-truth-conditional' connectives for them to belong to the same semantic class or encode the same type of meaning.

Indexicals, though stable in linguistic meaning, make different contributions to truth-conditional content on different occasions of use. Mood indicators don't **contribute** anything to truth conditions, and yet they **affect** them in that they seem to determine whether or not a given utterance has truth conditions. The same can be said for some illocutionary and attitudinal particles. Illocutionary and attitudinal adverbials, which don't seem to contribute to or affect truth conditions, don't have linguistic forms that are different from corresponding manner adverbials, which do. Some 'presuppositional' expressions, such as *cur*, seem to have both meaning that contributes to truth conditions (the 'canine' part) and meaning that doesn't (the attitude part). Similarly, connectives like *but* might be seen as having some 'truth-conditional' meaning (the same as *and*) and some 'non-truth-conditional' (the implication of contrast or incompatibility). Finally, some illocutionary and attitudinal particles (for instance *alas*), some 'presuppositional' expressions (such as *already*), focus particles and some connectives (for example *after all*) don't ever seem to make a contribution to or affect truth conditions. In sum, the range of expressions that don't consistently affect the truth-conditional content of their host utterances is staggeringly diverse. Given that the facts of linguistic underdeterminacy force us to accept that linguistic meaning cannot be equated with (a contribution to) truth properties, it is not really surprising that there are many different ways in which an expression may fail to contribute to the truth conditions of utterances in which it occurs. What this means is that the difference in truth-conditional behaviour between the expressions listed in Section 1.5 and the majority of linguistic expressions must be found somewhere other than merely in the type of meaning they encode. Furthermore, if there is a distinction between types of meaning, it is not likely to be one that can be captured in terms of the notion of truth alone.

The question of different kinds of linguistic meaning and how it bears on the 'truth-conditional'/'non-truth-conditional' distinction will be

taken up again at the end of Chapter 2. Before that, the chapter looks at how theorists working within different linguistic and philosophical traditions have dealt with 'non-truth-conditional' expressions. Chapter 3 gives an introduction to Relevance Theory, which draws a different semantic distinction, based on cognitive, rather than truth-theoretic, considerations. I will argue that this makes it possible to account for 'truth-conditional' and 'non-truth-conditional' linguistic meaning alike, avoiding the problems encountered by traditional truth-conditional theories of linguistic semantics, while still capturing the intuition that utterances are generally **about** things. Because I believe that the greatest force of argument comes from specific examples, I then concentrate on a subclass of 'non-truth-conditional' expressions, the so-called 'concessives': Chapters 4, 5 and 6 provide in-depth discussions of *but*, *although* and *even if*. The Conclusion gives a summary of the main arguments of the book and looks forward to future research on 'non-truth-conditional' linguistic expressions and linguistic meaning more generally.

2
Approaches to 'Non-Truth-Conditional' Meaning

2.1 'Non-truth-conditional' meaning in truth-conditional frameworks

Although truth-conditional approaches to linguistic meaning have dominated the literature in linguistics and the philosophy of language over the last century, many theorists have recognised the existence of 'non-truth-conditional' expressions. This, as noted in the Strawson quote at the beginning of Chapter 1, is as true of those who are primarily interested in the abstract semantic properties of language as it is of those who focus on the meaning that sentences acquire when uttered in a context. In both cases, the most common response to the existence of linguistic expressions that aren't amenable to truth-conditional treatment has been to supplement essentially truth-conditional frameworks with some new notion, or notions, to capture 'non-truth-conditional' meanings.

It is the aim of this chapter to give an overview of a number of approaches to 'non-truth-conditional' meaning within basically truth-conditional frameworks. Even though my ultimate suggestion will be that sentence and utterance meaning can (and should) be accounted for in primarily cognitive terms, much can be learned from the attempt to accommodate 'non-truth-conditional' meaning in otherwise completely truth-conditional semantic theories.

I start with a discussion of the views of theorists interested in sentence meaning rather than utterance meaning: Frege and Kaplan are both interested in sentence meaning, but the ways in which they account for it differ greatly. The second part of this chapter is devoted to the views of those more interested in what **speakers** mean when using sentences. These are essentially the speech act theorists Austin, Searle, Bach and

Harnish, Grice and Bach. An intermediate position is occupied by presuppositional approaches and these are discussed between the other two. Throughout, I pay attention to whether all 'non-truth-conditional' meaning is accounted for along the same lines and whether it is assumed that the 'truth-conditional'/'non-truth-conditional' distinction is of a semantic nature.

2.2 Frege: sense, reference, tone and force

> Thus the content of a sentence often goes beyond the thought expressed by it. But the opposite often happens too; the mere wording, which can be made permanent by writing or the gramophone, does not suffice for the expression of the thought.
>
> (Frege, 1918, in McGuiness, 1984, pp. 357–8)

This quote could be seen as Frege's recognition of the two biggest problems for truth-conditional approaches to linguistic meaning, as mentioned in Chapter 1: the existence of 'non-truth-conditional' expressions, and linguistic underdeterminacy. Bearing in mind that for Frege a thought is in fact a truth condition,[1] the second sentence shows that Frege recognised that, often, the linguistic meaning of a sentence does not yield a fully propositional form which can be given truth conditions. Given that he wanted to see natural language as parallel to logical languages as far as possible and that he attempted to give a strictly compositional account of natural language sentences, this recognition of underdeterminacy is highly significant. However, it is, of course, the first sentence of the quote which is of greater interest to the concerns of this book. It indicates that Frege also recognised that there are elements of linguistic meaning which cannot be captured in truth-conditional terms.

In examining Frege's treatment of language, it is important to keep in mind that he was not just, and not primarily, a philosopher of language, but a mathematician and logician. In this capacity, he was only interested in those aspects of language which are needed for mathematical and logical exposition. Since the logician needs language to capture facts about the validity of arguments, that is, to show how the truth of a conclusion follows from the truth of the premisses, it follows that Frege's main concern was with truth-conditional meaning. However, as Dummett (1981, p. 83) points out, in his capacity as a philosopher, Frege wanted to give an analysis of language not just as it is used for the

purposes of logic and mathematics but in all its function. This led to his recognition that not all linguistic meaning can be captured in truth-conditional terms. The very fact that someone like Frege recognised the existence of such meaning, to my mind, indicates just how fundamental it is to natural language. Presumably Frege would have liked natural language to be as close to an ideal logical language as possible. It seems poignant, therefore, that he had to introduce the notions of 'tone' and 'force' to capture those aspects of meaning that escape truth-conditional treatment. The rest of this Section will provide an outline of Frege's ideas about meaning, especially his notions of tone and force. It draws heavily on Miller (1998), which gives a very clear overview of the points central to Frege's framework.

Frege's system is strictly compositional. In other words, the reference of a complex expression is determined by the reference of its parts (Miller, 1998, p. 11) and the same goes for the sense of a complex expression (Miller, 1998, p. 29). Compositionality works in two ways. On the one hand, one can start with the sense and reference of a complex expression. One can then say that the sense of a simple expression will be what it contributes to the sense of the complex expression containing it and the reference of the simple expression will be its contribution to the reference of the complex expression. On the other hand, one can start with the sense and reference of simple expressions and build the sense and reference of complex expressions out of them. It seems that Frege went the first way: starting from the sense and reference of sentences, he worked out the sense and reference of proper names, predicates, connectives and quantifiers. Therefore, the notions of sense, reference, tone and force will all first be introduced as they apply to sentences. According to Frege, the **reference** of a sentence is a truth-value. Since **sense** is that which determines reference, the sense of a sentence is its truth condition, Frege calls this a thought.[2]

For Frege, the reference of a proper name is the object it stands for. The reference of a predicate is a function from objects to truth-values. For instance, the reference of the predicate *is green* is a function which maps green objects on to the value 'true' and all other objects on to 'false'. The reference of a connective is a first-level function from truth-values to truth-values. Thus, the reference of the connective *and* in sentences of the form *P and Q* will be a function which takes one from the values 'true' for *P* and 'true' for *Q* to 'true' for *P and Q*. Finally, the reference of a quantifier is a second-level function from concepts[3] to truth-values (Miller, 1998, p. 18). For example, the reference of the quantifier *all* in *all x are F* (for instance, *everyone is mortal*) will be a

function which takes the concept *x is F* as input and yields the value 'true' if every object in the domain of quantification is paired with 'true' in the extension of *F*.

Given this characterisation of the reference of proper names, predicates, connectives and quantifiers, and the fact that sense is seen as that which determines reference, it becomes quite difficult to see how the sense of proper names, predicates, connectives and quantifiers can be characterised. It seems much easier to start by looking at the sense of a sentence, that is, its truth condition, and to say that the sense of a proper name, a predicate, a connective or a quantifier is its contribution to the truth condition of the sentence. After all, we do seem to have intuitions about the truth conditions of sentences (or utterances of sentences), while it is not so easy to see how we could have direct intuitions about what contribution individual expressions make to the truth conditions of the sentences in which they occur.[4] However, as Frege realised, there are elements of meaning which cannot be captured in terms of sense and reference.

Non-declarative sentences present a first problem for Frege's notions of sense and reference. Clearly a question like (1), does not have a truth-value and therefore it does not have reference. Since it has no truth-value it cannot have a truth condition, which means it doesn't have sense either.

(1) Do you like chocolate?

According to Miller (1998, p. 57), Frege gets around this problem by saying that the meaning of a sentence can be given by an ordered pair consisting of the sense of a sentence and an indication of its **force**. Thus, (1) could be rendered as the ordered pair in (2):

(2) <you like chocolate, force of a question>

This ties in with the point made in Chapter 1, that there is a general consensus that, for every non-declarative sentence, there is a related proposition which can be given truth conditions.[5] In other words, the constituent words of a question like (1), for example, do have sense and reference, while the interrogative syntax indicates that the sentence is to be taken with the force of a question. This means that mood indicators, on Frege's picture, could be seen as encoding information about illocutionary force.

There is, however, an entirely different kind of meaning which cannot be captured in terms of sense or reference and, as the following quote

from Frege's *The Thought* shows, the notion of force cannot explain it either:

> An assertoric sentence often contains, over and above a thought and assertion, a third component not covered by the assertion. This is often meant to act on the feelings and mood of the hearer, or to arouse his imagination. Words like 'regrettably' and 'fortunately' belong here.
>
> (Frege, 1918, in McGuiness, 1984, p. 356)

The following quote gives some concrete examples:

> It makes no difference to the thought whether I use the word 'horse' or 'steed' or 'nag' or 'prad'. The assertoric force does not cover the ways in which these words differ. What is called mood, atmosphere, illumination in a poem, what is portrayed by intonation and rhythm, does not belong to the thought.
>
> Much in language serves to aid the hearer's understanding, for instance emphasizing part of a sentence by stress or word-order. Here let us bear in mind words like 'still' and 'already'. Someone using the sentence 'Alfred has still not come' actually says 'Alfred has not come', and at the same time hints – but only hints – that Alfred's arrival is expected. Nobody can say: since Alfred's arrival is not expected, the sense of the sentence is false. The way that 'but' differs from 'and' is that we use it to intimate that what follows it contrasts with what was to be expected from what preceded it. Such conversational suggestions make no difference to the thought.
>
> (Frege, 1918, in McGuiness, 1984, p. 357)

Frege also puts into this category the difference between passive and active constructions and that between sentences of the form *A gave B to C* and those of the form *C received B from A*. As the following quote from 'On sense and reference' shows, *although* is another element of this sort:

> Subsidiary clauses beginning with '*although*' also express complete thoughts. This conjunction actually has no sense and does not change the sense of the clause but only illuminates it in a peculiar fashion (similarly in the case of '*but*', '*yet*'). We could indeed replace the concessive clause without harm to the truth of the whole by another of the same truth value; but the light in which the clause is

> placed by the conjunction might then easily appear unsuitable, as if a song with a sad subject were to be sung in a lively fashion.
>
> (Frege, 1892, in Geach and Black, 1970, pp. 73–4)

All the elements mentioned in this paragraph have what Frege refers to as **tone**, or sometimes 'illumination' or 'colouring'. What is immediately striking about this is how different many of these elements are from each other. While Frege's statement that tone is meant to act on the hearer's mood or feelings or to stimulate his imagination might be accurate for the difference between *horse* and *steed*, or that between *dog* and *cur*, it doesn't seem very appropriate where the meanings of *still* and *already*, or the difference between *but* and *and*, are concerned. Another striking thing is that some of the elements Frege discusses have sense (and reference) plus tone, while others seem to have just tone and no sense (or reference). It is easy to see that *dog* and *cur* will have both sense and reference: both expressions contribute to the truth-conditional content of the sentences containing them. In fact, they both have the same sense and reference. The difference between them, which cannot be captured in truth-conditional terms, lies in their tone. The same goes for *but* and *and*.[6] By contrast, as demonstrated in Section 1.5.3, words like *fortunately* and *regrettably*, and *still* and *already*, do not contribute to the truth conditions of the sentences that contain them at all. In other words, they have no sense (and no reference). They have only tone and they contribute only to the tone of sentences containing them and not to their sense or reference.

There are a number of problems with Frege's notion of tone. Possibly the most serious one is that the notion seems to be little more than a convenient label for 'non-truth-conditional' phenomena not covered by force. By saying that the elements mentioned above contribute to the tone of a sentence, Frege doesn't actually provide an account of their meaning and neither does he say whether, or how, tone is compositional. If tone is to be a theoretically useful notion at all, it needs a good deal of explication. All Frege offers on this front is that he, as Dummett (1981, p. 85) points out, associates tone with the notion of 'idea'. An 'idea', for Frege, is a subjective 'image' in a person's mind. These images, according to Frege (for instance in Geach and Black, 1970, pp. 60–1), cannot be shared, they are incommunicable in principle. Thus, the same word might conjure up a certain idea in one hearer's mind and quite a different one in another's. The problem with this is that the difference between *dog* and *cur* clearly lies in their conventional linguistic meanings and it should therefore be, at least more or less, the same for all

speakers of English. Frege certainly wants linguistic meaning to be objective. Dummett (1981, p. 85) argues that even if ideas are subjective (and, therefore, tone is subjective), which is something he doubts, it doesn't follow that they are incommunicable in principle. Dummett's (1981, p. 88) explanation for Frege's 'carelessness' (Dummett's word) in his treatment of tone is lack of interest. As mentioned above, Frege's main concern was with matters of truth and logic. Still, the very fact that he recognised that there is linguistic meaning above and beyond that which makes a difference to the truth or falsity of a sentence seems reason enough to include his observations in this chapter.

The above discussion of linguistic meaning, combined with the fact that Frege assigns reference, sense, force and tone to sentences, raises the question of what it is that constitutes the linguistic meaning of an expression. Is it reference, sense, force **and** tone? As Dummett (1981, pp. 83–4) points out, Frege does not use an expression to cover the general, intuitive notion of 'meaning'. It seems clear that reference cannot be identified with meaning for the following reason, the reference of a sentence is its truth-value. Thus, all true sentences have the same reference, that is, 'true', and all false sentences have the reference 'false'. Therefore, if meaning were just reference, all true sentences would have the same meaning, namely 'true'. By analogy, all false sentences would have the same meaning, namely 'false'. This shows that reference certainly isn't sufficient to determine meaning. In fact, Frege points out that an expression can have a sense without having reference. In other words, a sentence can have a truth condition without having a truth-value.

> The words 'the celestial body most distant from the Earth' have a sense, but it is very doubtful if there is also a thing they mean.[7]
>
> (Frege, 1892, in Geach and Black, 1970, p. 58)

So, reference is not only not sufficient to determine meaning, it isn't necessary either. This is reflected in Dummett's (1981, p. 84) view that, if Frege wanted to analyse the general intuitive notion of 'meaning', he would do so in terms of sense, force and tone but not reference.[8]

To summarise, Frege accounts for the meaning of words and sentences using the notions of sense, force and tone, and (indirectly) reference. He appeals to the notion of force to account for non-declarative sentence types. The notion of tone is used in accounting for attitudinal adverbials, such as *fortunately* and *regrettably*; stylistic differences, like that between *horse, steed, nag* and *prad*; and connectives like *but* and *although*. As far as I am aware, Frege does not discuss illocutionary adverbials or

illocutionary and attitudinal particles and focus particles, but it seems fair to say that the notion of tone, if it is theoretically useful at all, could be applied to these phenomena too.

There is one class of expressions listed at the end of Chapter 1 that has not yet been discussed: indexicals. These, as Perry (1977/1991, p. 146) points out, pose a serious problem for Frege's framework. In a nutshell, the problem is this: indexicals have a linguistic meaning or character that is stable across contexts, but the contribution they make to the truth conditions of the utterances in which they occur changes from context to context. The question is how the stable meaning of indexicals can be captured in Frege's framework. Since sense is that which determines reference and the linguistic meaning of an indexical helps, to a greater or lesser extent, to determine its reference, one might assume that sense can do duty as the stable meaning of indexicals. However, as Frege sees it, the sense of a sentence is its truth condition and the truth condition of a sentence containing an indexical varies from context to context. Therefore, the contribution an indexical makes to the truth condition of the sentence in which it occurs, that is, its sense, cannot be its stable meaning. The stable meaning of an indexical has to come in at a level prior to sense, but Frege's framework does not allow for such a level. The next Section is devoted to Kaplan's work, which provides a theoretical framework capable of dealing with indexicals.

2.3 Kaplan: semantics of meaning and semantics of use

Kaplan is probably best known for his treatment of pronouns and demonstratives. It is, therefore, to be expected that he will have most to say about the elements discussed in Section 1.5.1, and this is certainly true of his published work. However, in his 1999 manuscript 'What is meaning? Explorations in the theory of "Meaning as Use" ', Kaplan discusses many of the other elements listed at the end of Chapter 1 in terms quite similar to those in which he discussed pronouns and demonstratives in Kaplan (1989). In what follows, I'll give a brief outline of Kaplan's theory of indexicals. I'll then discuss how he proposes to extend this theory to cover a wider range of expressions with non-truth-conditional meaning.

Kaplan (1989a, 1989b) accounts for the meaning of indexicals using the notions of character and content. The **character** of an expression is a function that yields the (propositional/truth-conditional) **content** of the expression in a given **context of use**. The content of a whole

sentence can then be judged true or false in different possible worlds, or **circumstances of evaluation**. Since, arguably, most natural language expressions, for instance *saw* in (3), contribute the same propositional component in all contexts of use, for most expressions character and content coincide. However, indexicals are different: The propositional components they contribute vary from context to context. Therefore, the character of an indexical, like *yesterday*[9] in (3), is different from its content in a given context:

(3) He saw her yesterday.

If (3) was uttered on 1 January 2004, *yesterday* would contribute 31 DECEMBER 2003 to the proposition expressed by the utterance. If it had been uttered on 25 December 2003, its contribution to the proposition expressed would be 24 DECEMBER 2003. While the propositional component contributed by *yesterday* (that is, its content) varies across contexts, the rule that yields this content in a given context of use (that is, its character) remains stable. As any speaker of English knows, *yesterday* refers to the day before the utterance.[10] In this way Kaplan manages to capture the context dependence of indexicals as well as the idea that indexicals do have some encoded semantic meaning that remains stable across contexts.

So far, it seems that Kaplan would find it difficult to account for most of the other elements discussed at the end of Chapter 1: Not many of them contribute to the proposition expressed by their host utterances. So, not many of them could be seen as having content at all. Indeed, even for those expressions that do make a truth-conditional contribution, for instance *cur* in (4), there is an element of meaning (for instance, the speaker's negative attitude towards the dog) that seems to be lost on Kaplan's picture as given so far, because it isn't part of the truth-conditional content of the utterance:

(4) A cur ate my steak.

However, Kaplan (1999) deals with examples like (5)–(8), as well as with the expressions *goodbye*, *ouch* and *oops*:

(5) That bastard Peter ate my steak.
(6) (a) Je t'aime.
    (b) Je vous aime.
(7) Peter is a bore but I like him.
(8) I like Peter although he is a bore.

The idea is that these expressions share with indexicals the property that they should be given a **Semantics of Use** rather than (or as well as) a **Semantics of Meanings**. Contrary to received opinion in formal semantics, Kaplan (1999) argues that expressions like those mentioned above should be treated within its framework, because their presence or absence makes a difference to the validity of arguments. To support this view, he gives two examples similar to (9) and (10):

(9) That bastard Peter ate my steak.
Peter ate my steak.

(10) Peter ate my steak.
That bastard Peter ate my steak.

Kaplan's intuitions are that the argument in (9) is valid while that in (10) isn't. Obviously, if the validity of these two arguments depended solely on the preservation of truth, as it is normally understood, they should both be valid.

To account for examples like these, Kaplan introduces the notions of **descriptive content** and **expressive content**. According to him, an expression has descriptive content if it **describes** something that is or isn't the case, while an expression has expressive content if it **expresses** (or displays) something that is or isn't the case. Descriptive content seems to correspond to truth-conditional or propositional content, expressive content doesn't. Descriptive content is representational, expressive content isn't. Kaplan illustrates the difference between expressing and describing in the following way: If someone screams, they display or express fear, if they say *I'm in fear* they describe it. While the distinction between expressing and describing is intuitively clear, there is a noticeable lack of theoretical definition of the two notions.

Parallel to the notions of descriptive and expressive content, Kaplan introduces the notions of **descriptive correctness** and **expressive correctness**. An expression is descriptively correct if what it describes is the case, an expression is expressively correct if what it expresses is the case. Let's return to the arguments in (9) and (10). According to Kaplan, *that bastard* expresses derogation. Thus, the premiss in (9), *That bastard Peter ate my steak*, is expressively correct if and only if the speaker has a derogatory attitude towards Peter. It will be descriptively correct if and only if Peter ate the speaker's steak.

Now Kaplan can capture the difference between the argument in (9) and that in (10). The premiss in (9) has descriptive and expressive content, the conclusion only descriptive content. In (10), on the other hand, the

premiss has only descriptive content and the conclusion has additional expressive content not present in the premiss. Clearly, on the traditional conception of logical validity, where an argument is valid if it is truth preserving, this difference between (9) and (10) doesn't explain why the former should be valid but the latter not. If Kaplan wants to preserve his intuitions concerning the validity of these arguments, he must redefine either logical validity or truth.

Kaplan initially pursues the first option. On his new definition, an argument will be valid not if it preserves truth, but if it observes 'information delimitation'. In other words, an argument is valid if and only if the conclusion doesn't contain any semantic information that isn't already contained in the premiss. On this definition: (9) is a valid argument because its conclusion doesn't contain any information that isn't already present in the premiss; (10) isn't valid because there is expressive content in its conclusion that isn't there in the premiss.

Kaplan also considers the second option where the notion of truth gets a broader definition. On this broader definition a sentence will be true if and only if it is not only descriptively correct, but also expressively correct. Kaplan calls this 'truth-plus'. If this course of action is adopted, logical validity can still be defined in terms of truth preservation, it's just that the 'truth' in question is truth-plus. This redefinition, too, captures Kaplan's intuitions regarding the validity of (9) and the non-validity of (10). (9) is valid because the expressive and descriptive correctness of the premiss guarantees the descriptive correctness of the conclusion. (10) is not valid because the descriptive correctness of the premiss is not enough to guarantee the descriptive and expressive correctness of the conclusion.[11]

On the whole, Kaplan's introduction of the notion of expressive content can be seen as a recognition of the generally accepted fact that not all semantic meaning can be treated in truth-conditional terms. However, Kaplan's eagerness to use the tools of logic to capture 'non-truth-conditional' meaning is slightly more contentious. It is obvious that Kaplan's 1999 paper is programmatic in nature and, apart from the fact that the expressing/describing distinction is only explicated in intuitive terms, there are a number of questions it doesn't answer. Possibly the most pressing one of these is: How do the notions of descriptive and expressive content fit in with Kaplan's earlier notions of character and content? The one thing that seems clear is that 'content' in Kaplan's earlier work corresponds to 'descriptive content' in the later Kaplan (1999). It seems equally clear that character cannot correspond to descriptive content, because it is on a different, prior, level (recall that

it is that which determines descriptive content). Furthermore, it can't correspond to expressive content either because that surely has to be situated on the same level as descriptive content, namely at the level at which the sentence is evaluated for descriptive or expressive correctness. The question, then, is whether there is such a thing as 'expressive character', since, presumably, the notion of 'character' that leads to descriptive content is still needed to account for the meaning of indexicals. If there is such a thing as expressive character, what is its role? It is conceivable that if the character of an indexical is a rule of use, the character of an expressive could be a rule of use too. Thus, the character of *yesterday* could be something like 'use to refer to the day before the day of utterance' and that of *bastard* something like 'use if you want to express a derogatory attitude towards the object'. If this is right, one could say that the domain of Kaplan's Semantics of Use was character and, possibly, expressive content, while the domain of his Semantics of Meanings would be descriptive content. However, there is still the question of what expressive content would look like and, indeed, how expressive character would determine expressive content in a given context of use.

It seems that, potentially, Kaplan's Semantics of Use could account for the majority of the expressions listed at the end of Chapter 1.[12] At this stage, however, there is no detailed account of how this would be done. Nevertheless, compared with Frege's treatment of 'non-truth-conditional' meaning, Kaplan's approach goes a reasonably long way towards providing a framework (or the beginnings of one) capable of accounting for all sorts of 'non-truth-conditional' devices.

2.4 Presuppositional approaches

Presuppositional approaches occupy an intermediate position between approaches that are mainly interested in the formal properties of sentences, such as Frege's and Kaplan's, and those that focus on the properties of linguistic expressions that enable speakers to use them to communicate (for instance the speech act approaches discussed in the next section). As mentioned in Section 1.5.5, there are many ways of construing presupposition, but all construals share the assumption that presuppositions have to be true for the true/felicitous assertion of certain sentences. In that sense, presupposition is both a formal notion and a notion that belongs in the realm of linguistic communication. Here I will briefly look at some ways in which the notion has been characterised and how (or whether) it can be used to account for expressions with 'non-truth-conditional' meaning.

The first definition of presupposition up for consideration is the classical **semantic**, or **logical**, one. On this view, presupposition is a special subclass of entailment.[13] Wilson gives the following definition of logical presupposition:

> A sentence S presupposes another sentence P iff if S is true P must be true, and if not-S is true P must be true, and if P is false or lacks a truth-value both S and not-S must lack a truth-value.
>
> (Wilson, 1975, p. 16)

(11) and (12) are examples that have often been used to illustrate this kind of presupposition: If (11) is true, (13) must be true; if its negation (12) is true, (13) must be true; and if (13) is false, it has been claimed, (11) and (12) lack a truth-value:

(11) Peter has stopped smoking.
(12) Peter hasn't stopped smoking.
(13) Peter has been a smoker.

Apart from the fact that it disregards linguistic underdeterminacy, this view of presuppositions cannot account for 'non-truth-conditional' linguistic meaning. For instance, intuitively (14) seems to presuppose something along the lines of (15):

(14) Peter managed to repair the car.
(15) Repairing the car was difficult for Peter.

This seems all the more convincing for the fact that (16), the negation of (14), also conveys (15):

(16) Peter didn't manage to repair the car.

However, (15) can't be a logical presupposition of either (14) or (16) because it's entailed by neither of those utterances. As mentioned in Section 1.5.5, (14) is true if and only if Peter repaired the car – any assumptions concerning the difficulty of that enterprise don't enter into a truth-conditional characterisation of (14). Someone who utters (14) in a context where (15) is not true could not be accused of lying. At most, that person could be accused of inappropriately uttering (14) or, possibly, misleading her audience. For the same reason, none of the other expressions in Section 1.5 can be accounted for in terms of logical

presupposition.[14] Burton-Roberts (1989, p. 127) proposes an alternative definition of logical or semantic presupposition, according to which a sentence *S* presupposes another sentence *P* if and only if *P* is true whenever *S* is true, but the falsity of *P* does not render *S* false. Since this construal also takes presupposition to be a form of (weak) entailment, it doesn't apply to cases of genuinely 'non-truth-conditional' meaning either. There is, however, a (non-logical) construal of presupposition that might be used to account for 'non-truth-conditional' meaning.

Stalnaker (1974/1991) argues for a **pragmatic** notion of presupposition. According to him, presupposing is not something a sentence or proposition does, but something that speakers do. On this reading, a presupposition is an assumption taken for granted by the speaker (and assumed to be taken for granted by the hearer as well). Stalnaker gives the following tentative characterisation of pragmatic presupposition:

> A proposition *P* is a pragmatic presupposition of a speaker in a given context just in case the speaker assumes or believes that *P*, assumes or believes that his addressee assumes or believes that *P*, and assumes or believes that his addressee recognizes that he is making these assumptions.
>
> (Stalnaker, 1974/1991, p. 473)

Stalnaker points out that this characterisation shouldn't be seen as a definition of pragmatic presuppositions because it's not clear what it is to assume or believe something in the relevant sense and even if it were, the definition would need further qualification since a speaker can presuppose things that are not known to the hearer and not presuppose things that are known to both speaker and hearer. Nevertheless, Stalnaker contends that the notion of shared background knowledge (or, at least, beliefs or assumptions) can be used to account for presuppositional phenomena. According to him (1974/1991, p. 475), presuppositions as shared background assumptions can arise in at least two ways. The first of these is semantic in the sense that it is the conventional (or encoded) meaning of the words that necessitates the assumption that a speaker in a given context is making a certain presupposition. For example, it seems to be a semantic property of the verb *manage* in sentences of the form *X managed to V* that it can only be uttered appropriately in contexts where it is assumed by the speaker that the hearer assumes that the speaker assumes, and so on, that it is difficult for *X* to *V*.

The second way in which a pragmatic presupposition can arise is entirely pragmatic. In other words, it is possible that sometimes a presupposition arises simply because it would not make sense for a rational speaker to utter a sentence expressing proposition *P* if she wasn't presupposing *Q*. Stalnaker (1974/1991, p. 476) discusses the example of *know* in sentences of the form *X knows that P*. He believes that the fact that in most cases where a speaker utters a sentence of this form she will be taken to be presupposing *P* can be explained without claiming that there's some presuppositional constraint built into the semantics of the verb *know*. He argues as follows. If a speaker were to utter *X knows that P* in a context where the truth of *P* was in doubt or dispute, she would be saying something that could be challenged on two counts. It would be unclear whether her main point was to make a claim about the truth of *P* or to make a claim about the state of *X*'s knowledge. In other words, the speaker would be leaving it unclear where she wanted the conversation to be going. Therefore, given what *X knows that P* means and the fact that 'people normally want to communicate in an orderly way, and normally have some purpose in mind' (Stalnaker, 1974/1991, p. 476), it would generally be unreasonable for a speaker to utter *X knows that P* in a context where the truth of *P* isn't established. In such a context, the speaker could communicate more efficiently by producing a different utterance (such as *P* simply or *X has found out that P*).[15] Obviously, if any of the examples discussed in Section 1.5 are to be treated in pragmatic presuppositional terms, the presuppositions should be seen as arising in the first way – as a result of a semantic property of the expressions discussed.

Like Stalnaker, Recanati (1998, pp. 626–7) is not convinced by the logical notion of presupposition. He finds it more appealing to assume that presuppositions are part of the conventional (encoded) meaning of an utterance without entering into its truth conditions. For Recanati, presuppositions like the one associated with the verb *stop* in (11) and (12) should be construed as 'conditions of use or constraints on the context'. In other words, the verb *stop* is seen as encoding the information that the context should contain a certain proposition, (13) in the case of (11) and (12). The claim then is that an utterance of (11) or (12) will only be appropriate in a context where (13) is available.

Unlike the logical notion of presupposition, the contextual constraint notion can easily be applied to a case like *manage* along the lines described above. However, the notion of contextual constraint needs some clarification. For instance, does a discourse adverbial like *fortunately* in (17) constrain the context? One could argue that an utterance of (17)

is appropriate only in contexts in which (18) is available and, thus, that *fortunately* encodes a contextual constraint:

(17) Fortunately, Mary was able to repair the car.
(18) The speaker thinks something is fortunate for someone.

This shows that if the notion of presupposition is seen as nothing other than a constraint on context, a whole range of phenomena that have not traditionally been accounted for in presuppositional terms could be seen as carrying presuppositions. Many of these phenomena, however, do not intuitively seem presuppositional. For instance, while most people will grant that an utterance of (19) presupposes (20), no one seems to believe that (17) presupposes (18):

(19) The king of France is bald.
(20) There is a king of France.

Depending on the definition of the notion of contextual constraint, practically all the expressions listed in Section 1.5 could be said to carry presuppositions in Recanati's sense. However, it's unclear what would be gained by treating many of them in presuppositional terms, since the information they convey does not have to be part of shared background knowledge. If the notion of presupposition is equated with that of constraint on context, it loses its intuitive appeal. It seems to me that the phenomenon of presupposition and that of 'non-truth-conditional' semantics are completely distinct. If one wants a notion of presupposition that captures intuitions, an account like Stalnaker's seems most promising, but it will not deliver at the same time an account of 'non-truth-conditional' meaning. That is something that might well be done using the notion of contextual constraint, but not before it has been given more substance than Recanati seems to do.

2.5 Speech Act Theory

2.5.1 Introduction

Unlike Frege and other formal semanticists, speech act theorists are primarily interested in natural language as it is used in everyday communication. In fact, speech act theorists were reacting against the approach of Frege and his followers, who were firmly rooted in the tradition of formal logic and were trying to give a formal account of language. Where Frege was concerned with sentence meaning, speech act theorists

were interested in speaker meaning. In other words, for them, the most interesting question is not 'what does the sentence mean?', but 'what did the speaker mean by uttering the sentence?'. Probably the most famous speech act theorists are Austin, Searle and Grice. In what follows, I will start with the Speech Act Theory of Austin and Searle and its developments in the hands of Bach and Harnish and Recanati, who seem to have most to say about the meaning of non-declarative sentence types and illocutionary and attitudinal adverbials. The following section is concerned with Grice's own version of Speech Act Theory, which has more to say about the meaning of certain 'non-truth-conditional' connectives. Finally, a small section is devoted to Bach's recent criticism of Grice's approach to 'non-truth-conditional' connectives.

2.5.2 Austin and Searle: the locutionary and the illocutionary

In *How To Do Things With Words*, Austin (1962, p. 1) starts with the observation that language can be used for many more things than the making of statements that are either true or false. This leads him to look at a class of verbs, the 'performatives', which he believes are not used to make statements (at least not when used in a certain way in the first-person singular) but, as the name suggests, to perform actions. An example of this is *I warn you* in (21). Further examples are *I promise, I hereby pronounce you man and wife, I ask you, I bet* and many more.

(21) I warn you that there's a bull in that field.

The investigation of the actions we perform when we produce utterances containing performative verbs then led Austin to consider what sorts of actions we perform when producing utterances in general. This resulted in the, by now classic, distinction between locutionary, illocutionary and perlocutionary acts (Austin, 1962, pp. 95–101).

The **locutionary** act is the act **of** saying something. Austin (1962, pp. 92–8) further analyses the locutionary act as being constituted by phonetic, phatic and rhetic acts. The phonetic act is the act of uttering certain noises, the phatic act is the act of uttering certain words in a certain construction, that is, the uttering of certain noises that are part of the grammar of a certain language, and, finally, the rhetic act consists in uttering the words of a certain language in a certain construction with a definite meaning (which Austin construes as 'sense' and 'reference'). A locutionary act can also be characterised as the uttering of a sentence

with a certain locutionary meaning. It seems that Austin would want to say that the locutionary meaning of an utterance of (21) would be something along the lines of (22):

(22) There's a bull in field$_x$.[16]

This seems problematic because *I warn you that* certainly must be part of the phonetic and phatic acts performed in an utterance of (21) – it is part of the noise made and also part of the words that are uttered in a certain construction. The only thing Austin might want to deny is that *I warn you that* forms part of the rhetic act, or that these words are uttered with a particular sense and reference in this kind of context. However, this is only possible if 'sense' and 'reference' are understood in the Fregean way, as pertaining to the truth condition of the utterance. Even then, though, Austin would have to show that *I warn you that* does not contribute to the truth condition of (21). Quite apart from this worry, Austin's characterisation of locutionary meaning is not entirely clear and it has been interpreted in different ways by different theorists. This will be discussed in some detail below. For the time being, I will let it stand as it is and move on to the notion of illocutionary act.

The **illocutionary** act is the act performed **in** saying something (Austin, 1962, p. 99). Put differently, it is the act of uttering a sentence with a certain illocutionary force. In general, whenever someone performs a locutionary act, they also perform an illocutionary act (though not necessarily the illocutionary act indicated in the locutionary act[17]). In the case of (21), the illocutionary act performed is an act of warning. In other words, the sentence is uttered with the illocutionary force of a warning. Note that this illocutionary force does not have to be explicitly indicated by a performative verb. For example, an utterance of (21) without *I warn you that* could still be used to perform an act of warning. Finally, **perlocutionary** acts are the acts performed **by** saying something, that is, acts that affect the hearer's feelings, thoughts or actions (Austin, 1962, p. 101). (21) could, for example, be used to perform the perlocutionary act of frightening the hearer.

As mentioned above, there is some debate about what Austin intended to fall under the notion of locutionary act. Put slightly differently, it is unclear what exactly constitutes the locutionary meaning of a sentence, on the one hand, and what makes up the illocutionary force of an utterance, on the other. This question is particularly important in the context of this chapter, because it is expressions with 'non-truth-conditional'

linguistic meaning that seem to bring out the problems with Austin's distinction between locutionary and illocutionary acts most clearly. These problems are the following.

Broadly, there seem to be two ways of construing locutionary meaning (with some intermediate possibilities). The first way is to equate the locutionary meaning of a sentence with its linguistic meaning (what is encoded), plus reference assignment and disambiguation.[18] The second way is to equate locutionary meaning with propositional content (the truth conditions of the sentence on an occasion of utterance). The intermediate possibilities all seem to amount, one way or another, to equating locutionary meaning with propositional content plus some, but not all, 'non-truth-conditional' linguistic meaning. Austin seems to believe that explicit performatives, such as *I warn you* in (21), are not part of locutionary meaning. However, *I warn you* is clearly part of the linguistic meaning of (21). This indicates that he did not intend locutionary meaning to be construed the first way. Apart from explicit performatives, such as *I warn you*, the problematic elements are mood indicators, such as the non-declarative syntax in (23) and (24), illocutionary adverbials, such as *frankly* in (25), and possibly also the meaning encoded by the illocutionary particle *eh* in (26):

(23) Shut the door.
(24) Do you like chocolate?
(25) Frankly, Peter is a bore.
(26) You like Peter, eh?

Like *I warn you*, all of these expressions have linguistic meaning (with the possible exception of *eh*), but it seems that the information they encode is more illocutionary than locutionary. That is, the imperative syntax in (23) could be linked with the illocutionary acts of telling to, ordering, suggesting, and so on. The interrogative mood of (24) seems to indicate that the utterance is to be taken with the force of a question. *Frankly* in (25) might indicate that the speaker is performing an act of confessing or admitting something (or, at least, of speaking frankly). And finally, *eh* in (26) seems to have an effect similar to the interrogative mood in (24).

As mentioned above, different theorists have interpreted Austin in different ways or, in some cases, drawn their own distinctions. Searle (1968/1973), for example, interprets Austin as intending one of the intermediate possibilities. According to Searle, Austin's locutionary

meaning includes all 'truth-conditional' but only some 'non-truth-conditional' linguistic meaning. Searle bases this interpretation on a quote from Austin (1962, p. 95), in which he gives the following examples of reports of phatic and rhetic acts: 'He said "I shall be there" ' (reports phatic act), 'He said that he would be there' (reports rhetic act); 'He said "Get out" ' (phatic), 'He told me to get out' (rhetic); 'He said "Is it in Oxford or Cambridge?" ' (phatic), 'He asked whether it was in Oxford or Cambridge' (rhetic). From these examples, it seems that one could conclude that Austin intended locutionary meaning to amount to propositional content plus an indication of generic illocutionary force, that is, saying, telling and asking. If this is how Austin intended locutionary meaning to be defined, Searle argues, the distinction between locutionary and illocutionary acts collapses. Here is his argument.

Searle (1968/1973, p. 147) points out that the above reports of the rhetic act (and thus the locutionary act) already contain the illocutionary verbs *say, tell* and *ask*. Now, Searle grants that these are generic illocutionary verbs, but, he maintains, they are still illocutionary verbs. The fact that Austin has used these verbs in characterising locutionary acts, means that he has, inadvertently, characterised locutionary acts as illocutionary acts and, therefore, that the distinction between the two has collapsed.

Instead of Austin's notion of locutionary act, Searle (1968/1973, p. 155) introduces the notion of **propositional** act, that is, the act of expressing an illocutionary force-neutral proposition. This, according to Searle, captures the difference between the **force** of an utterance and its **content**. To sum up, Searle (1968/1973) distinguishes between the following acts performed when uttering a sentence: the phonetic act, the phatic act, the propositional act and the illocutionary act. On this picture, it seems that all the elements discussed in Section 1.5, with the exception of indexicals, will have to be accounted for in terms of illocutionary force, since none of them make any contribution to the proposition expressed. As mentioned above, for non-declarative sentences, illocutionary adverbials and particles, this might not be problematic, but it is hard to see how attitudinal adverbs and particles, 'presuppositional' expressions and discourse connectives could be accounted for in terms of illocutionary force. In short, Searle's taxonomy leaves some elements of linguistic meaning unaccounted for.

Strawson (1973) considers roughly the same evidence as Searle (1968/1973) but reaches slightly different conclusions. Strawson (1973, pp. 50–6) looks at three possible interpretations of locutionary meaning

in turn. His first interpretation is identical to the first one mentioned above, namely that locutionary meaning amounts to all linguistic meaning plus reference assignment and disambiguation. Strawson (1973, p. 52) concludes that this could not be what Austin had in mind, because Austin (1962, pp. 73–6) lists a number of elements with linguistic meaning, such as mood, stress, adverbs and connectives, saying of them that they make clearer the force of the utterance and that their role could be taken over by explicit performatives (though not without 'change or loss', as Austin (1962, p. 73) puts it). Since these elements are seen as making clear the illocutionary force of the utterance and not making more precise the meaning of the sentence, they cannot be part of the locutionary meaning of the sentence and locutionary meaning must be less than all linguistic meaning.

The second interpretation Strawson examines is the same as the second one mentioned above. On this interpretation, locutionary meaning amounts to no more and no less than the truth-conditional content of the sentence as uttered on a certain occasion. Strawson (1973, p. 54) comes to the conclusion that this is not likely to be the intended interpretation either, because the way in which the locutionary meaning is assessed (for instance as being true or false) depends on what it is that is being assessed, that is, whether it is a statement or advice, for example. This leads to the third interpretation which Strawson considers and adopts.

Like the interpretation chosen by Searle (1968/1973), Strawson's third interpretation is what has been referred to above as an intermediate possibility. Strawson also concludes from the way in which Austin (1962, p. 95) characterises the rhetic act that for Austin it must involve more than just specifying sense and reference. Therefore, he argues, locutionary meaning should include a rough classification of what is said into 'declarative', 'imperative', 'interrogative' and, as Strawson (1973, p. 55) puts it 'perhaps one or two more'. Unlike Searle (1968/1973), Strawson does not find this idea problematic. In fact, he proposes a schema of interpretation based on it (1973, p. 60). In this schema, given in (27), locutionary meaning and illocutionary force are specified separately. The locutionary meaning of declaratives is the proposition expressed and that of imperatives is, in Strawson's (1973, p. 60) words, the 'imperative expressed'. Strawson adds that, for the other general classes of what is said, terms parallel to 'proposition expressed' and 'imperative expressed' will have to be introduced, but he does not suggest what they could be.

(27)

X issues the { 1. proposition (*that* S is P) / 2. imperative (*that* Z (person) is to Y (act)) / 3. ? }

as a/ with the force of a/ by way of { 1. accusation, report, forecast, conclusion, objection, hypothesis, guess, verdict, etc. / 2. command, request, piece of advice, prayer, invitation, entreaty, etc. / 3. ? }

(Strawson, 1973, p. 60)

On this interpretation of the locutionary/illocutionary distinction, just as on Searle's (1968/1973) interpretation, most of the elements listed at the end of Chapter 1 would have to be accounted for in terms of illocutionary meaning. The interesting difference between Searle and Strawson, though, is that while for the former non-declarative syntax is treated as determining illocutionary force, it looks as though for the latter it determines what kind of locutionary meaning one is dealing with, that is, whether the locutionary meaning is a proposition, an imperative or something else. Presumably this approach would be better equipped to explain why statements have truth conditions, but questions and requests don't.

Bach and Harnish (1979) seem to have a conception of locutionary meaning very similar to Strawson's (1973). They characterise locutionary acts in terms of what is said, a notion which has itself been given many different interpretations, most famously by Grice, and more recently by Bach, as discussed in the next two sections. Corresponding to sentence mood, they distinguish different kinds of saying. Thus, according to Bach and Harnish (1979, p. 25), the locutionary act performed in uttering a declarative sentence amounts to (28) and that performed in uttering an imperative to (29). For interrogatives, there are two possible locutionary acts: (30) in the case of a yes/no-interrogative and (31) in the case of a wh-interrogative ('wh-x' stands for the unknown component of P):

(28) S is saying that it is the case that P.
(29) S is saying that H is to make it the case that P.

(30) S is asking (or saying that H is to tell S) whether or not it is the case that P.
(31) S is asking (or saying that H is to tell S) (wh-x P).

In fact, Bach and Harnish's characterisation of imperatives and interrogatives encounters some serious difficulties. These will be discussed in the next chapter, where I will advocate an alternative account proposed by Wilson and Sperber (1988).

Recanati's construal of the notion of locutionary act is subtly different from all of those discussed so far. Although he agrees with Strawson and Searle that Austin is likely to intend at least some indication of the type of speech act performed to be part of locutionary meaning, he does not conclude from this that the locutionary/illocutionary distinction collapses. Recanati (1987, pp. 258–60) stresses the difference between actual illocutionary acts and indicated illocutionary acts. According to him, indicated illocutionary acts are the result of linguistic meaning which encodes information about illocutionary force rather than about content.[19] For Recanati, locutionary meaning amounts to the propositional content of the utterance together with all linguistic meaning (including indicated, or 'non-truth-conditional', linguistic meaning). It is Recanati's argument that indicated illocutionary acts are not the same as actual illocutionary acts and that, therefore, locutionary and illocutionary acts are not the same. Recanati's basis for this distinction is the fact that, no matter how precisely the linguistic meaning of a sentence indicates the illocutionary force with which it is to be taken, on every occasion on which the sentence is uttered the hearer still has to determine whether the speaker actually intended to utter the sentence with that force. For instance, a speaker might utter (24), whose linguistic meaning clearly indicates that it is to be taken as a question.[20] However, the speaker might be an actress who is just saying her lines and doesn't intend it to be a question at all. Another possibility is that the speaker is aping somebody and the illocutionary act she actually performs is not one of asking a question, but one of mocking the hearer (if that, indeed, is an illocutionary act).

(24) Do you like chocolate?

However this may be, the point Recanati is making is that, even where the illocutionary act actually performed is the same as the indicated illocutionary act, the hearer has to work out that it is. Therefore, the

locutionary act, including the indicated illocutionary act, is not the same as the illocutionary act, or the illocutionary act actually performed. Since, on Recanati's view, locutionary meaning encompasses all linguistic meaning, all the elements discussed in the final Section of Chapter 1 have to be seen as contributing to locutionary meaning.

The question now is how locutionary meaning can be characterised. None of the speech act theorists mentioned in this Section seems to have an answer to this question. What is clear is that on this last construal and on the intermediate ones, only a certain amount of locutionary meaning can be accounted for in truth-conditional terms. However, there is no suggestion as to how the 'non-truth-conditional' aspects of locutionary meaning could be captured.

2.5.3 Grice: saying and conventionally implicating

Grice is a hybrid figure, in a sense, straddling the divide set out above between philosophers interested in (formal) sentence meaning and 'ordinary language' philosophers. This becomes clear when one looks at his theory of meaning and his theory of conversation. While he firmly believed in characterising meaning in terms of speakers' intentions, he also wanted to preserve the notion that some natural language words, for example *and*, can be given the same semantics as their logical counterparts, the truth-functional connective '&' in the case of *and*.

In 'Meaning', Grice (1957/1989) draws a distinction between two types of meaning: natural and non-natural ($meaning_{NN}$). 'Those spots mean measles' is his example of natural meaning and 'Those three rings on the bell (of the bus) mean that the bus is full' is his example of $meaning_{NN}$. According to Grice, human communication is a matter of non-natural meaning. For instance, he (1957/1989, pp. 213–23) characterises utterer's meaning as follows:

> 'A $meant_{NN}$ something by *x*' is (roughly) equivalent to 'A intended the utterance of *x* to produce some effect in an audience by means of the recognition of this intention'; and we may add that to ask what A meant is to ask for a specification of the intended effect.
>
> (Grice, 1989, p. 220)

Timeless meaning (one type of which is linguistic meaning) is then characterised in terms of utterer's meaning as the following quote from

Grice shows:

> '*x* means$_{NN}$ (timeless) that so-and-so' might as a first shot be equated with some statement or disjunction of statements about what 'people' (vague) intend (with qualifications about 'recognition') to effect by *x*.
> (Grice, 1989, p. 220)

As these two definitions stand, meaning$_{NN}$, be it timeless meaning or utterer's meaning, is not confined to linguistic meaning. Grice wants the term 'utterance' to be taken broadly, that is, not confined to linguistic utterances but to all kinds of actions, such as gestures or the showing of a photograph, that can be used to produce an effect in an audience in the way described above. In later essays, both the notion of utterer's meaning and that of utterance-type meaning (or timeless meaning), are given much more sophisticated definitions (see Grice, 1968/1989 and 1969/1989), though the fundamental concern to explicate sentence and word meaning in terms of utterer's meaning and thus in terms of an utterer's intentions remains.[21] What also remains is the idea that utterer's meaning goes beyond linguistic meaning.

Obviously, what is of particular concern for this chapter is how Grice accounts for 'non-truth-conditional' linguistic meaning. In order to explain how he does this, let me start with what is possibly Grice's most fundamental distinction. In 'Logic and conversation', Grice (1975/1989, pp. 24–5) distinguishes two ways in which a speaker can mean$_{NN}$ something, namely by 'saying' it or by 'implicating' it. At this point, he merely says that he wants 'what is said' to be closely related to the conventional meaning of the words uttered. Later, he (1969/1989, 1968/1989) tackles the task of expanding on this notion of 'what is said' and links it with the notions of utterer's meaning and timeless meaning.

Grice (1969/1989, p. 87) gives the following, as he says, 'hideously oversimplified' definition of what it means for an utterer U to 'say' that p:

U did something *x*	1. by which *U* meant that *p*. 2. which is an occurrence of an utterance type S (sentence) such that 3. S means 'p' 4. S consists of a sequence of elements (such as words) ordered in a way licensed by a system of rules (syntactical rules)

> 5. S means 'p' in virtue of the particular meanings of the elements of S, their order and their syntactical character.'
>
> (Grice, 1969/1989, p. 87)

He then goes on to say that this is still too wide for the following reason. U's doing something might be uttering a sentence like (32):

(32) She was poor but she was honest.

Both what U means by uttering (32) and what the sentence means will contain an element contributed by the word *but*. However, Grice does not want the contribution *but* makes to be part of 'what is said' in his special sense. He says a little more about this in 'Utterer's meaning, sentence-meaning, and word-meaning' (Grice, 1968/1989). There, he focuses on the distinction between 'what U said' and 'what U conventionally meant'. For Grice (1968/1989, p. 121) 'what U conventionally meant' is defined by the necessary and sufficient conditions in (33):

(33) U conventionally meant that p iff:

(a) when U uttered X, the meaning of X included 'p'
(b) part of what U meant when he uttered X was that p.

It seems that on this picture, 'what is conventionally meant' is both more and less than 'what is said': It is more in that the contribution *but* makes to the meaning of (32) is part of what is conventionally meant, but not of what is said; it is less in that what is said will contain the values of referential expressions which are not part of what is conventionally meant. Again, Grice (1968/1989, pp. 120–2) makes it clear that he does not consider the contribution made by elements like *but, therefore* and *moreover* to be part of 'what is said':

> Now I do not wish to allow that, in my favored sense of 'say', one who utters S_1 [Bill is a philosopher and he is, therefore, brave] will have *said* that Bill's being courageous follows from his being a philosopher, though he may well have said that Bill is a philosopher and that Bill is courageous. I would wish to maintain that the semantic function of the word 'therefore' is to enable a speaker to *indicate*, though not *say*, that a certain consequence holds.
>
> (Grice, 1989, p. 121)

Since the only two kinds of 'utterer's meaning' Grice envisages are what is said and what is implicated, and he clearly doesn't want 'non-truth-conditional' expressions to be part of what is said, they have to be part of what is implicated. Therefore, he (1975/1989, p. 25) introduces the notion of **conventional implicature** to capture the meaning of expressions such as *but*.

However, while it is clear that Grice doesn't want elements like *therefore* to contribute to 'what is said', his reasons for this are quite mysterious. All he says is that he expects this sense of 'say', which excludes the meaning of words like *therefore*, 'to be of greater theoretical utility' than other possible ways of construing the notion (1968/1989, p. 121). One way of making sense of this is to assume that Grice wants 'what is said', at least in the case of assertions, to coincide with the truth-conditional content of the utterance. This is, at any rate, how Neale (1992) understands it:

> Although Grice is not as explicit as he might have been, it is clear upon reflection (and from scattered remarks) that *what is said* is to do duty (with a proviso I will get to in a moment) for *the statement made* or *proposition expressed* by *U*. Where the sentence uttered is of the type conventionally associated with the speech act of asserting (i.e. when it is in the 'indicative mood') what is said will be straightforwardly *truth-conditional*.[22]
>
> (Neale, 1992, pp. 520–1)

For my purposes, this means that the interesting elements will be precisely those, like *but* and *therefore*, that are part of what a speaker conventionally meant, but not part of what the speaker 'said'.

In order to ensure that 'what is said' will not contain contributions made by words like *therefore*, Grice amends his definition of what is said. He does this by specifying that there is a special, central subclass of speech acts, which seems to include asserting something and telling somebody to do something.[23] He (1968/1989, pp. 121–2) then specifies that a speaker uttering *X* will have 'said' that *p* just in case she has performed a central speech act with the content *p*, and *X* embodies some conventional device whose meaning is such that it indicates the performance of this central speech act. For instance, a speaker uttering (34) has said that the grass is green because, in uttering *the grass is green*, she has performed the central speech act of asserting that the grass is green and, presumably, it is the conventional meaning of the indicative mood

in this sentence to indicate the performance of an assertion:

(34) The grass is green.

Grice's way of excluding words like *therefore, moreover* and *but* from what is said on this new definition is to say that they indicate the performance of certain non-central speech acts. For example, *therefore* would indicate the performance of the speech act of concluding, and *moreover* the speech act of adding (Grice, 1989, p. 122).[24]

In strand five of his 'Retrospective epilogue', Grice (1989, pp. 359–68) says more about this. He starts out trying to find a 'central' kind of signification and he ends up postulating two different kinds of centrality: formality and dictiveness (1989, p. 360). Signification will be formal if it falls under the conventional meaning of the expressions used. Dictiveness, on the other hand, is linked with what is said. Thus Grice says that

> special centrality should be attributed to those instances of signification in which what is signified either is, or forms part of, or is specially and appropriately connected with what the signifying expression (or its user) *says* as distinct from implies, suggests, hints, or in some other less than fully direct manner conveys.
>
> (Grice, 1989, p. 360)

In other words, an expression will be dictive if its meaning is linked (and here Grice is not being as clear and specific as one could wish) to what is said.

The elements which are of special interest to me, that is, those which, in Grice's earlier terminology, carry conventional implicatures, are now analysed as being formal but non-dictive. This just seems to be another way of saying that they are part of what a speaker conventionally meant, but not of what the speaker said. According to Grice, it might be quite surprising, 'slightly startling' as he (1989, p. 362) puts it, that there are such elements which are formal but not dictive. As before, he enlists the help of speech acts to account for this 'startling' possibility. The example he uses is (35):

(35) My brother-in-law lives on a peak in Darien; his great aunt, on the other hand, was a nurse in World War I.

(Grice, 1989, p. 361)

Grice points out that a hearer presented with (35) might well be baffled and will certainly start wondering what the contrast is between the

speaker's brother-in-law living on a peak in Darien and the great aunt being a nurse in WWI. If it should turn out that the speaker had no contrast in mind, she could certainly be accused of misusing the expression *on the other hand*. However, it would not be enough to make her statement in (35) false. Grice's (1989, p. 362) explanation for this is that, in uttering (35), a speaker in effect performs several speech acts at different, but related levels. Thus, a speaker uttering (35) is making the ground-floor statements in (36) and (37) and, at the same time, she's performing the higher-order speech act of commenting on the performance of the two lower-order speech acts. In the case of *on the other hand* (and, presumably, also *but, although* and a number of other expressions) this comment is one of contrasting, as represented in (38):

(36) My brother-in-law lives on a peak in Darien.
(37) His great aunt was a nurse in World War I.
(38) There is a contrast between asserting (36) and asserting (37).

To sum up, Grice accounts for the meaning of 'non-truth-conditional' connectives by saying that they encode conventional implicatures which concern the performance of a higher-order speech act, commenting on lower-order speech acts. It does not seem too difficult to imagine that Grice could account for the meaning of illocutionary and attitudinal adverbials, and illocutionary and attitudinal particles along similar lines. For instance, *frankly* could be seen as commenting on the performance of the ground-floor speech act by indicating that it is being performed in a frank manner. However, it's more difficult to imagine what sort of higher-order speech act would be performed in the use of focus particles. It is even less clear how Grice would deal with 'presuppositional' expressions, such as *cur, spare, deprive* and the others listed in Section 1.5.5. What does seem clear, though, is that Grice would not treat indexicals as encoding conventional implicatures. In his view, at least their referents[25] are part of 'what is said', which, according to him, is determined by the meaning of the words, disambiguation and reference assignment (Grice, 1975/1989, p. 25).

2.5.4 Bach: against 'conventional implicature'

As the last section showed, the central notion Grice employs in his treatment of those 'non-truth-conditional' expressions that he considers is that of conventional implicature. Bach (1999) takes issue with this notion. His starting point (1999, p. 327) is that the notion occupies an

uncomfortable position within Grice's framework in that it describes meaning that is semantic (that is, linguistically encoded) without being part of what is said. He then goes on to argue that all expressions that have traditionally been analysed as carrying conventional implicatures fall into one of two categories. Either they are really part of what is said or they are vehicles of second-order speech acts.[26] Here, I will only give a brief outline of Bach's argument and its import for the treatment of the 'non-truth-conditional' devices under discussion in this chapter.

The first step in Bach's argument against the notion of conventional implicature is to show that a whole host of linguistic devices that have traditionally been seen as carrying conventional implicatures really contribute to what is said. To show that this is the case, he subjects them to what he calls the 'IQ', or indirect quotation, test. This test is based on his belief that 'the "that"-clause in an indirect quotation specifies what is said in the utterance being reported' (1999, p. 339). This poses a problem for the assumption that connectives like *but* and *although* are not part of what is said, because, as (39) and (40) show, they can both occur perfectly easily in an indirect quotation:

(39) Mary said that Peter is a bore but she likes him.
(40) Mary said that she likes Peter although he is a bore.

While each of these sentences could be understood in a number of ways, the crucial point is that they can be understood as indirect reports of Mary's utterances of (7) and (8) respectively:

(7) Peter is a bore but I like him.
(8) I like Peter although he is a bore.

From this, Bach concludes that connectives of this sort really contribute to what is said, because they can occur in indirect quotations. However, he recognises (1999, pp. 343–50) that there are a number of factors that conspire against such a conclusion and he sets out to defuse each one of them.

First, he observes that *but* doesn't encode a unique contrastive relation but has an import that varies from context to context.[27] For this reason, he claims, any particular account of the meaning of *but* in truth-conditional terms is vulnerable to counter-example. His answer to this problem is to make the truth-conditional contribution of *but* underspecified and context dependent, by saying that *but* encodes something like 'there is a certain contrast between the two conjuncts'. This seems

to require a process of pragmatic enrichment ('completion' in Bach's terms) in order to derive the proposition communicated.

Second, the contrast that *but* indicates is often not part of what the speaker is asserting but is taken to be part of shared background (or pragmatically presupposed) knowledge. His way of disposing of this argument is to say that not everything that is said has to be equally important and that there is, therefore, nothing incompatible between the contribution *but* makes being part of what is said and its being pragmatically presupposed.

Third, most people would say that an utterance of (41), for example, is true just as long as both conjuncts are true, even if there is no discernible contrast between the two conjuncts:

(41) Peter is a nice guy but I like him.

Bach believes that this intuition is the result of a forced choice. According to him, one should allow for the possibility that one and the same sentence can express more than one proposition and can, therefore, be partly true and partly false.[28] For instance, (41) could be seen as expressing the primary propositions that Peter is a nice guy and that Mary likes him and the secondary proposition that Peter's being a nice guy contrasts with Mary's liking him. In this case, the two primary propositions could be judged to be true, while the secondary one could be judged to be false. The argument then is that the falsity of the secondary proposition isn't enough to make the whole utterance false, precisely because it is secondary. Thus, if one gave people more than just a choice of saying that the whole utterance is true or the whole utterance is false, they might well say that an utterance of (41) is partly true and partly false.

Finally, Bach (1999, p. 347) concedes that the idea of *but* contributing to what is said might be unattractive because it seems to result in the claim that what is said by an utterance containing *but* contains an extra clause. For instance, what is said by an utterance of the two clauses in (41) would have to be specified in three clauses, for instance (42)–(44). In fact, Bach claims that it was considerations like this that made Grice opt for a conventional implicature treatment, although he provides no evidence to support this.

(42) Peter is a nice guy.
(43) John likes Peter.
(44) There is a certain contrast between someone being a nice guy and other people liking them.

Bach counters this kind of worry by saying that what is said can be specified or reported by a sentence including *but* and that there is no need to assume that there has to be an extra clause. He (1999, pp. 350–5) argues that expressions such as *but* function as operators on propositions that preserve the original proposition(s), while also yielding a new one. For instance, Bach (1999, p. 352) sees *still* as an operator that indicates that the state of affairs described by the sentence without *still* has obtained during some interval up to the time of reference. Unfortunately, Bach doesn't say how he would see *but* affecting the two propositions it operates on.

Bach's view raises many points for discussion and criticism, and more will be said about his suggestion that a single sentence may express more than one proposition in the next chapter. For further critical discussion of Bach's approach to conventional implicature and what is said, see Blakemore (2002, pp. 53–8), Carston (2002, pp. 173–7) and Hall (2003, pp. 8–14). For now, it's enough to note that only a small number of the expressions listed in Section 1.5 behave like *but* and *although* when it comes to Bach's IQ test. Focus particles, such as *even* in (45), and elements listed under the heading of 'presuppositional' expressions in Section 1.5.5, such as *that bastard* in (46) and *manage* in (47), obviously can occur in indirect quotations. One would, therefore, expect Bach to want to account for these expressions along similar lines to *still* and *but* (that is, as elements of what is said and maybe even as propositional operators).

(45) Jack said that even John came to the party.
(46) Jack said that that bastard Peter ate his steak.
(47) Jack said that Peter managed to repair the car.

(48)–(52), on the other hand, show that other connectives, illocutionary and attitudinal adverbials and illocutionary and attitudinal particles don't pass the IQ test:

(48) *John said that Peter is a bore nevertheless he likes him.
(49) *John said that frankly, Peter is a bore.
(50) *John said that sadly, he can't stand Peter.
(51) *John said that Peter is an interesting man, huh.
(52) *John said that oh, Peter is such a bore.

All these expressions that don't pass the IQ test, Bach analyses in terms of second-order speech acts. This analysis seems to amount to nothing

other than Grice's own analysis of conventional implicatures in terms of higher-order speech acts.

Finally, there are a number of devices listed in Section 1.5 for which it isn't clear if or how the IQ test could work. For instance, although (53) is an acceptable sentence of English, it clearly can't do duty as an indirect report of John's utterance of (3):

(53) John said that he saw her yesterday.
(3) He saw her yesterday.

It seems that one would have to utter something like (54) in order to report John's utterance:

(54) John said that Jim saw Ruth on 22 May 2004.

Therefore, it seems that the linguistic meaning of indexicals isn't part of what is said on this picture. It will be seen in Section 3.6.2 that this is not Bach's position on what is said by sentences containing indexicals and that the IQ test, in these cases, doesn't quite make predictions that fit with Bach's conception of what is said.

It seems clear that non-declarative utterances can't occur in indirect quotations without some modification. For instance, (1) obviously must be reported as (55) rather than (56):

(1) Do you like chocolate?
(55) John asked whether Jack liked chocolate.
(56) *John said that does Jack like chocolate.

It seems, then, that mood indicators don't affect **what** is said, but rather what **kind of saying** is involved (see Bach and Harnish, 1979, p. 25, as discussed in Section 2.5.2). However, it seems that 'saying' in Bach's (and Bach and Harnish's) technical sense is a far cry from the natural language 'saying' that introduces indirect quotations. In other words, it's doubtful whether Bach's IQ test is the right tool for getting at 'what is said' in his technical sense.

Summing up, in this Section, I have briefly introduced Bach's treatment of some of the 'non-truth-conditional' devices surveyed in Section 1.5 and I have shown that he treats some of them as truth-conditional, while the others receive a second-order speech act analysis in line with Grice's own account of conventional implicature. Finally, it isn't clear from Bach (1999) how he would treat indexicals and mood indicators.

2.6 Conclusion

In this chapter, I've discussed the ways in which, in the last 100 years, a number of theorists have treated the range of 'non-truth-conditional' expressions within frameworks in which truth conditions play a crucial role.[29] As the different sections have shown, there doesn't seem to be a single theorist or tradition that can account for the meanings of the full range of 'non-truth-conditional' expressions. What is more, not a single theorist or tradition accounts for all 'non-truth-conditional' expressions in the same terms. This lends support to the argument made at the end of the last chapter: the 'truth-conditional'/'non-truth-conditional' distinction is not semantic in nature. That is, it does not capture a difference in types of linguistic encoding. At best, 'non-truth-conditional' is a label for a heterogeneous class of expressions that share the characteristic of not contributing to the truth-conditional content of some or all utterances in which they occur. That, however, is a pragmatic rather than a semantic matter. In other words, we are still missing a distinction between types of linguistic encoding that can capture the differences between some of the expressions discussed so far and the majority of linguistic expressions.

The next chapter is devoted to Relevance Theory, which, I will argue, provides a cognitive definition of two kinds of linguistic meaning and makes it possible to account for the full range of 'non-truth-conditional' linguistic meaning. However, it will be shown that not all of the expressions listed in Section 1.5 should be seen as encoding the same type of meaning.

3
Relevance Theory and 'Non-Truth-Conditional' Meaning

3.1 Introduction

In Chapter 1, I discussed various linguistic expressions that have been classed as having 'non-truth-conditional' meaning and, in Chapter 2, I looked at the ways in which some theorists have attempted to accommodate them in their still essentially truth-conditional frameworks. The conclusion I reached was that the notion of 'non-truth-conditional' meaning doesn't cover a natural class of expressions and that calling an expression 'non-truth-conditional' isn't a theoretically useful way of describing it. In this chapter I'll introduce the cognitive pragmatic framework of Relevance Theory (RT). I will show that this framework enables us to account for the meaning of all linguistic expressions regardless of whether (and when) they contribute to the truth-conditional content of the utterances in which they occur.

First, I'll introduce the relevance-theoretic view of communication and utterance interpretation. This provides motivation for there being two different types of information a linguistic device can encode: conceptual and procedural. This semantic distinction is explored in Section 3.3. A different (pragmatic) distinction, between explicitly and implicitly communicated assumptions, is developed in Section 3.4. I'll argue that the conceptual/procedural distinction captures a fundamental semantic difference between two types of linguistic phenomena, while the (pragmatic) distinctions between implicitly communicated and two types of explicitly communicated assumptions make it possible to capture when and whether a given expression contributes to the truth-conditional content of an utterance. In Section 3.5, I consider the role of truth conditions in RT. Finally, in Section 3.6, I'll suggest how RT can be, and has been, used to account for the 'non-truth-conditional' phenomena

listed at the end of Chapter 1 without describing them as semantically 'truth-conditional' or 'non-truth-conditional'.

3.2 Relevance and (ostensive) communication

3.2.1 The cognitive principle of relevance

Within the framework of Relevance Theory (RT), linguistic communication is seen in the broader context of human cognition and ostensive communication in general. The basic idea is that humans are predisposed to pay attention to relevant stimuli. This is captured in the cognitive principle of relevance, according to which human cognition is geared towards maximising relevance (Sperber and Wilson, 1986/1995, pp. 46–50 and 261–3). In absolute terms, a stimulus is relevant to a cognitive system at time *t* if and only if the information it carries interacts with information already within the system at *t* in one of three basic ways.[1] The result of this interaction is called a **cognitive effect** in RT. The three main types of cognitive effect are illustrated in (1)–(3):

(1) Joan is lying in bed. She can hear a patter on the roof and concludes that it's raining. She gets up, opens the shutters and sees that it is indeed raining.

In the scenario in (1), the new information Joan gains from looking out of the window interacts with a belief she's already formed. The new information – the realisation that it's raining – **strengthens** Joan's existing assumption that it's raining, which she held with less than full conviction.

(2) Joan is lying in bed. Given that there's no audible patter on the roof, she assumes that it isn't raining. She gets up, opens the shutters and she sees that it's raining.

In (2), the new information that it's raining again interacts with an existing assumption of Joan's, namely that it isn't raining. Here, the new information **contradicts and eliminates** Joan's existing assumption, because Joan holds it with greater strength than her existing assumption.

(3) Joan is lying in bed. She decides that if it's raining she won't go for a run. She gets up, opens the shutters and sees that it's raining.

In (3), the new information that it's raining interacts with Joan's existing assumption that she won't go for a run if it's raining. In this case,

the two assumptions together logically imply the third assumption that Joan won't go for a run. This third assumption is a **contextual implication** of the new information, in the context described by (3). Note that neither Joan's existing assumption nor the new information could have given rise to this third assumption on their own; the contextual implication only arises once old information and new information are combined. In all of these cases, the information that it's raining is relevant, because it achieves at least one cognitive effect. So much for the definition of relevance in absolute terms.

It seems clear that relevance is not just an absolute concept, but that different stimuli will achieve different degrees of relevance. For instance, imagine two stimuli A and B, which carry the same information but differ in that A is a lot easier and quicker to process than B. In such a case A would surely be more relevant than B. Similarly, if two stimuli C and D were to demand an equal amount of processing effort but C gave rise to more cognitive effects than D, C would be more relevant than D. In other words, the more processing effort a stimulus requires, the less relevant it is; the more cognitive effects it achieves, the more relevant it is. This is the relative (or 'comparative') definition of relevance. The question now is what role relevance plays in ostensive-inferential communication. Before going into this, let me say what relevance theorists mean by this kind of communication and why they take it to be the appropriate domain of pragmatics.

3.2.2 Ostensive communication

The kinds of stimuli discussed so far (in particular in the scenarios in (1)–(3)) all convey information in a way Grice (1957/1989) would characterise in terms of **natural meaning**. For example, the patter on the roof 'naturally means' that it's raining. Clearly, the patter on the roof doesn't **communicate** that it's raining. It seems that the notion of communication should be much closer to Grice's (1957/1989) notion of **non-natural meaning** or **meaning$_{NN}$**, discussed in Chapter 2, which involves the hearer's recognition of the speaker's intentions.[2] In fact, Sperber and Wilson (1986) define ostensive communication in a way which is very close to, but also significantly different from, Grice's notion of meaning$_{NN}$.

Taking for granted that communication crucially involves the transmission of information, Wilson and Sperber (1993, pp. 3–4) note that a stimulus (for instance, a linguistic utterance) can convey information in a variety of ways. Only in some of these cases can the information be said to have been ostensively communicated. Consider

the scenarios in (4)–(8):

(4) Peter overhears Joan talk on the phone. He notices her Irish accent and gathers from this the information that Joan is Irish.

Even though the stimulus (the utterance) produced by Joan conveys to Peter the information that she's Irish, it doesn't seem helpful to say that Joan in (4) has communicated to Peter that she is Irish, because she clearly had no **intention** of transmitting this information. In fact, Joan's utterance here seems to have natural rather than non-natural meaning: Joan's Irish accent 'means' that she's Irish much in the way the pattering on the roof 'means' rain. It seems clear that, at the very least, the kind of communication that is central to pragmatics has to involve the **intentional** transmission of information. However, the fact that information is transmitted intentionally is not sufficient for it to be ostensively communicated. This is illustrated in (5):

(5) Joan deliberately puts on her best Irish accent to make Peter think that she's Irish. However, she doesn't want Peter to realise that she wants him to think that she's Irish.

In (5), if Joan's display is successful, Peter will end up believing that Joan is Irish for the same reason as in (4) – because Peter takes Joan's Irish accent to 'mean' that she's Irish. Since Peter doesn't recognise Joan's intention to make him think that she's Irish, recognising her intention plays no role in his actually coming to think that she's Irish. Even though Joan has intentionally transmitted the information that she's Irish, she surely hasn't ostensively communicated it. In this case Joan does have what Sperber and Wilson (1986, p. 29) call an **informative intention**: she intends to inform Peter of her Irishness. However, an informative intention alone is not enough to turn information transmission into the kind of communication involved in everyday verbal (and non-verbal) exchanges. It seems that for Joan to communicate that she is Irish she must not only intentionally convey the information but also intend Peter to realise that she wants to convey the information in question. However, as (6) shows, this is still not quite enough to guarantee that information transmission is a case of fully overt communication:

(6) Joan says something in an Irish accent. She intends to inform Peter that she is Irish and she wants Peter to realise that she has this

informative intention. However, she doesn't want him to realise that she wants him to discover her informative intention.

In (6), Joan intends Peter to think that she has an informative intention, but, for some reason, she wants to hide this higher-level intention from him. So, if Joan's intentions succeed, Peter will feel that he has seen through her by realising that she is intentionally putting on her best Irish accent to make him think that she is Irish. This, too, isn't a case of ostensive communication. Because Peter doesn't think that Joan wants him to recognise her informative intention, his recognition of her intention can't play a role in its fulfilment. The scenario in (6), like (5), is a case of covert 'communication'. For Joan to communicate ostensively that she is Irish, she not only must have an informative intention, but she must also intend this informative intention to be mutually manifest to her and Peter. In other words, she must have a **communicative intention** (Sperber and Wilson, 1986, p. 29). Consider the scenario in (7):

(7) Peter asks Joan where she's from. In reply she utters:

'Why, what could she have done, being what she is? Was there another Troy for her to burn?'[3] in an obviously Irish accent.

Here, it stands to reason that Joan not only intends to make it manifest (or more manifest) to Peter that she's Irish, but that she also wants to make mutually manifest her intention. In other words, in the scenario in (7), Joan has both an informative and a communicative intention, which means that this is a case of ostensive communication. Note, however, that there is still a difference between this and the standard case of verbal communication: Although Joan has ostensively communicated that she is Irish by her utterance of 'Why, what could she have done, being what she is? …', she has not, in Sperber and Wilson's (1986, p. 178) terms, 'said' that she is Irish; she has, instead, provided direct evidence that she is, hence 'shown' that she is.[4] This becomes particularly clear, if we compare (7) with (8):

(8) Peter asks Joan where she's from. She says 'I'm Irish'.

In this scenario, Joan makes it mutually manifest that she wants to make it manifest that she's Irish by saying that she is: she utters words that go a long way towards linguistically encoding (or conventionally meaning) that she is Irish. By contrast, there is nothing about the linguistically

encoded content of Joan's utterance in (7) that means that she is Irish. Peter will derive that assumption purely inferentially, on the basis that someone's Irish accent (possibly along with their knowledge of an Irish poem) 'naturally' means that they are Irish.

In (8), as in (7), Joan has a communicative as well as an informative intention. In both scenarios, the very fact that Peter recognises Joan's communicative intention will help fulfil her informative intention. In other words, the very fact that Peter recognises that Joan wants it to be mutually manifest that she wants him to believe that she's Irish helps fulfil Joan's informative intention. In RT, acts that are manifestly intended to achieve communication, such as Joan's utterances in (7) and (8), are referred to as **ostensive stimuli**.

So far, I've used the notion of **mutual manifestness** without explicating it. Let me remedy this. According to Sperber and Wilson (1986, p. 39), an assumption is manifest to an individual at a certain time if and only if she's capable of entertaining the assumption at that time and accepting it as true or probably true. An assumption *A* is mutually manifest to two (or more) people if and only if they are capable of entertaining and accepting as true or probably true, not only *A*, but also the assumption that *A* is manifest to them. In other words, in order for a certain assumption *A* to be mutually manifest to Joan and Peter it's not necessary for either of them to **actually** be entertaining *A*, or the assumption that they are entertaining *A*, or the assumption that it is mutually manifest that they're entertaining *A*. It's enough that they both **could** entertain all of these assumptions and, if they did, accept them as true or probably true.

The above discussion should have made it clear that communication, as it is defined by Sperber and Wilson, is not just a matter of coding and decoding – in (7) Joan ostensively communicates that she is Irish without any of that information being encoded by her utterance at all. An ostensive stimulus, on this picture, is not a signal that is decoded to yield a message. Rather, the ostensive stimulus is a piece of evidence of the speaker's communicative and informative intentions, which the hearer uses as input to a series of non-demonstrative inferential processes. In cases like (8), part of this evidence is linguistically encoded, but even in such cases, what is ostensively communicated goes far beyond what is encoded. As will be seen below, the communicative principle of relevance licenses a comprehension strategy that guides the hearer in the inferential processes leading to the recovery of the assumptions the speaker intended to communicate.

3.2.3 The communicative principle of relevance

When a speaker has a communicative intention it seems reasonable to assume that she'll do her best to help the hearer recognise her informative intention. After all, the whole point of ostensive communication is that the speaker wants an informative intention fulfilled partly by virtue of the hearer's recognition of it. Since humans are geared towards paying attention to relevant stimuli, it will be in the speaker's interest to produce a stimulus that's at least relevant enough to be worth the hearer's attention; in other words, one that has sufficient cognitive effects for no undue processing effort. Therefore, once a speaker has attracted the hearer's attention and made it clear that she has a communicative intention, the hearer is licensed to expect a certain level of relevance from the ostensive stimulus the speaker has produced. This is captured by Sperber and Wilson's (1986, p. 158; 1995, pp. 266–7) **communicative principle of relevance**. According to this principle, every act of ostensive communication communicates a presumption of its own optimal relevance. An ostensive stimulus is **optimally relevant** if and only if it is: (a) relevant enough to be worth the hearer's attention; and (b) the most relevant stimulus the speaker could have produced given her abilities and preferences (Sperber and Wilson, 1995, p. 270).

On this picture, utterance interpretation is seen as a process of hypothesis formation and evaluation: taking the ostensive stimulus as evidence of the speaker's communicative intention, the hearer forms and evaluates hypotheses about the content of the speaker's informative intention. Because processing effort increases as the accessibility of an interpretation decreases (and thus relevance decreases), the hearer is licensed to follow a path of least effort, accessing interpretations as they occur to him and stopping as soon as he's recovered an interpretation that meets his expectation of relevance.[5] This is known as the **relevance-theoretic comprehension strategy** (see, for instance, Sperber and Wilson, 1998).

Within RT, a linguistic utterance is seen as simply a special kind of ostensive stimulus. It differs from non-verbal gestures and other non-linguistic but ostensively communicative behaviour in that it involves a certain amount of linguistic coding and decoding. In other words, while the addressee of an ostensive hand movement, for example, has to recover the communicator's meaning purely inferentially, the addressee of a linguistic utterance is given a certain amount of encoded information, though not enough to render inference unnecessary, as the decoding of the linguistic meaning of an utterance typically yields only a sub-propositional conceptual representation (as claimed by the

semantic underdeterminacy thesis, discussed in Chapter 1). Taking this representation as the input to a series of pragmatic computations (constrained by the relevance-based comprehension strategy), the hearer will come up with a hypothesis as to what (fully propositional) assumptions the speaker intended to communicate. Let me illustrate this with an example.

In the scenario in (9), in interpreting Mary's utterance the hearer (Peter) initially has access to the information in (10) and (11):

(9) *Peter* Does Susan have a boyfriend?
Mary She's a lesbian.
(10) Mary has uttered 'She's a lesbian'.
(11) Mary intends the information conveyed by this utterance to be (or at least to appear to be) optimally relevant to me.

Ultimately, Peter will, for example, have derived (at least) the assumptions in (12):

(12) Mary intends to communicate (intends me to realise that she intends me to believe) that

(a) Susan is a lesbian.
(b) Most lesbians don't have boyfriends.
(c) Susan isn't likely to have a boyfriend.
(d) Susan isn't likely to be interested in me as a potential boyfriend.

Without going into the intermediate steps of this process, it's clear that metarepresentation is an integral part of utterance interpretation on this picture.[6]

As will be shown in the next section, because the process of utterance interpretation involves representation and computation, it is plausible that linguistic stimuli may encode two different types of information: conceptual and procedural.

3.3 Conceptual and procedural information

3.3.1 Representation and computation

Implicit in what has been said about RT so far is that it is a cognitive theory of utterance interpretation that subscribes to a particular view of the mind, namely the kind of computational representational theory of

mind argued for by Fodor (in, for example, Fodor, 1985/1990). This view of the mind is based on the assumptions that: (a) intentional mental states (such as beliefs and desires), that is, states which represent (are about) the world, are real; and that (b) by virtue of their contents, they enter into causal relations with each other and play a causal role in behaviour.

Fodor (1985/1990) argues convincingly that the only way one can make sense of a computational representational theory of the mind, while also taking into account the productivity and systematicity of mental representations (thoughts), is by postulating a compositional system of representation, that is, a syntactically articulated system, or 'language' of thought (sometimes known as Mentalese). On this view, mental representations are 'sentences' in the language of thought, which is conceived of as being similar to public languages like French and English in that it has both structural (syntactic) and semantic properties. The 'words' in the language of thought, on this view, are concepts, or atomic mental representations. Mental representations undergo the computations they do by virtue of their syntactic rather than their semantic properties. This means that mental processes are similar to inference processes in formal logic in that they can rely on purely syntactic considerations because the formal, syntactic properties of mental representations reflect their semantic contents (at least to some reasonable extent). For instance, the way in which my belief that if it's raining things left outside get wet and my belief that it is raining cause the belief that things left outside will get wet is parallel to the logical inference from $P \rightarrow Q$ and P to Q.

On this kind of computational representational theory of the mind, cognitive processes involve both mental representation and computation. Because we're capable of integrating information from a variety of sources (such as the senses and memory), the final outputs of these processes must be in a sense-neutral medium. This medium is provided by conceptual mental representations and it is this kind of representation that concerns me here.

If one places the process of utterance interpretation in the context of the kind of view of the mind discussed above, mental representation and computation are two crucial ingredients in the process. Both the output of the language module (that is, the logical form of the utterance) and the end result of the whole interpretation process (the totality of communicated assumptions) are structured conceptual representations. However, the conceptual output of the decoding process, the logical form, is, crucially, never fully propositional. The result of the interpretation

process as a whole is a set of fully propositional conceptual representations (assumptions or thoughts), which the hearer will take the speaker to have communicated either explicitly or implicitly (more on this distinction in Section 3.4).

The role of computation in utterance interpretation is twofold. On the one hand, there are the decoding processes that deliver a subpropositional conceptual representation (the logical form). For instance, if all a hearer does is decode the linguistic content of an utterance of (13), the result will be a very minimal schematic conceptual representation along the lines of (14), where *X* and *Y* are semantically supplied variables:

(13) He likes her.
(14) X LIKE Y

As mentioned in Chapter 1, *he* and *she* don't linguistically encode their referents and, therefore, mere linguistic decoding will provide neither the subject nor the object of the proposition (13) is uttered to express.

Computation plays a more interesting role, as far as this chapter is concerned, at the next stage of utterance interpretation; namely the stage at which computations take the output of decoding as their input and deliver the set of assumptions the speaker intended to communicate. These computations are much more variable in that the same input does not lead to the same output in all contexts.[7] At this point, the hearer integrates the logical form with other information available to him from memory and from the output of other input systems (such as visual or auditory perception). As mentioned above, this process is constrained by the relevance-theoretic comprehension strategy. Since the logical form is not fully propositional, as demonstrated by (14), but the assumptions a speaker is communicating generally are,[8] communication would not be possible without the inferential processes involved in fleshing out the logical form and deriving contextual implications or implicatures.

3.3.2 Conceptual and procedural encoding

On a cognitive view of utterance interpretation like the one described here, it seems natural to assume that many, if not most, natural language words encode representational information – the building blocks of the logical form, so to speak. After all, the output of the language module is a conceptual representation. To give an example, *sky* and *grey* in (15) can respectively be seen as leading to mental representations

(or concepts) of the sky and of the colour grey:

(15) The sky is grey.

However, as Blakemore (1987) has pointed out, the RT account of utterance interpretation, with its emphasis on minimising processing effort, gives good reason to think that some encoded linguistic information is concerned directly with the inferential phase of utterance interpretation (or computation) rather than representation. After all, it is in the interests of speakers to produce utterances that require as little processing effort as possible to achieve the intended effects. Since processing effort is essentially effort expended in the computational process of constructing and testing interpretive hypotheses, any information that constrains these computational processes will be effort saving. This is the basis for the distinction between conceptual and procedural encoding.

On this picture, most natural language expressions are seen as encoding conceptual information. That is, like *grey* and *sky*, they lead directly to mental representations or concepts, which are constituents of the logical form encoded. However, some expressions seem to be more appropriately accounted for as encoding procedural information. Using the sequence of utterances in (16), let us follow the line of reasoning presented in Blakemore (1987, pp. 70–6).

(16) (a) Joan loves Bach. (b) She is very discerning.

Confronted with these utterances, it might not be immediately obvious to a hearer how the speaker intends him to interpret them. In particular, it might not be obvious to the hearer how the speaker intended (b) to achieve relevance in the light of (a), or how he is supposed to process the utterance and what effects he is intended to derive. For instance, (a) could be seen as a premiss leading to the conclusion in (b), but, equally well, (b) could be the premiss and (a) the conclusion. Therefore, it would be useful if the speaker had some linguistic means at her disposal for indicating just what kind of inferential relationship she's envisaging between (a) and (b) in (16). According to Blakemore (1987, pp. 85–91), *so* in (17) and *after all* in (18) perform precisely this function. That is, *so* in (17) indicates that (b) is a conclusion derived as a contextual implication from (a),[9] and *after all* in (18) indicates that

(b) is a premiss that strengthens the existing assumption (a):

(17) (a) Joan loves Bach. (b) So she is very discerning.
(18) (a) Joan loves Bach. (b) After all, she is very discerning.

Quite generally, for any utterance there will be no guarantee that the contextual assumptions and cognitive effects immediately accessible to the hearer are those the speaker intends. Therefore, the speaker will find it useful to employ linguistic constructions, such as *so* and *after all*, that constrain the inferential phase of utterance interpretation and thus point the hearer to the intended interpretation. Speakers can do this, as in (17) and (18), by indicating what kind of cognitive effect the hearer is to expect. Blakemore (1989) has analysed *but* (at least on one of its uses) along similar lines, that is, as encoding the instruction that the main cognitive effect of the utterance of the clause that follows it is one of contradiction and elimination. I will discuss Blakemore's account of the meaning of *but*, and various modifications that may need to be made, in Chapter 4.

On the basis of the discussion so far it would be natural to conclude that all procedural information indicates what kind of cognitive effect the speaker intends her utterance to achieve. However, as Blakemore (2000) points out, this is not the case. It seems that procedural information can also give an indication of the type of context in which the utterance should be processed, or the kind of inferential process the hearer should go through. For instance, Blakemore (2000, 2002) analyses *nevertheless* as encoding the information that the segment it introduces is relevant as an answer to a question whose relevance has already been established in the preceding discourse and that it should be processed in a context which supports a contrary answer.

(19) It's raining. Nevertheless, I need some fresh air.

Thus, in (19), *I need some fresh air* could be seen as a positive answer to the question *Are you going to go for a walk?* In this case, the first clause, *it's raining*, provides the context that suggests a negative answer. The analyses of *but, although* and *even if* in the following three chapters will suggest that there are a range of ways in which procedural meaning may constrain inference and that Blakemore's initial assumption that all procedural meaning encodes information about the intended type of cognitive effect is, indeed, too restrictive.

The distinction between conceptual and procedural encoding outlined above raises a number of questions. For instance, what exactly does it mean for an expression to encode procedural meaning? It's all very well to say that linguistic constructions with procedural meaning encode information that constrains the inferential phase of communication, but something should be said about just how these constraints operate. A further question is whether linguistic expressions only ever encode either conceptual or procedural information, or whether one and the same expression can encode both types of information. Finally, how does the theorist decide which expressions (or which aspects of an expression's encoded meaning) are conceptual and which procedural?

Section 3.3.3 is devoted to the third question. Here, I'll briefly discuss the first two questions. The first question is probably the most difficult of the three and there is not yet a general answer to it. However, Chapters 4, 5 and 6 make a contribution to an answer. On the whole, it still seems easier to say what procedural information **doesn't** look like than to say what it **does** look like. Just from the fact that procedural information is not representational the following can be concluded: procedural information doesn't appear as part of conceptual representations, therefore it doesn't have logical properties. This means that it can't entail or contradict concepts and assumptions, it can't be true or false and it can't represent states of affairs in the world (or aspects of states of affairs in the world). At least this negative characterisation enables the theorist to devise some tests to determine whether a given expression or a given aspect of the meaning of an expression is conceptual or procedural. A range of such tests will be discussed in Section 3.3.3. There is, however, scope for more tangible empirical evidence to support the existence of the distinction, if not the status of individual expressions. Such evidence may be forthcoming from the study of aphasias, processing and acquisition, and is most likely to be procured by methods employed by cognitive science, such as various scanning techniques. For, if the distinction between conceptual and procedural meaning exists, one would expect it to have implications for the way in which processing is done. For instance, it seems possible that, in aphasias, expressions with procedural meaning pattern with grammatical features, rather than with conceptual expressions, so that people with non-fluent aphasias might retain the use of conceptual but not procedural expressions. Obviously, this is highly speculative, but future research in this direction promises to be fruitful. Of course, if no difference in processing can be found between allegedly conceptual and

allegedly procedural expressions, the reality of the distinction has to be questioned.

Moving on to the second question, it is quite conceivable that a single expression could encode both conceptual and procedural information. For example, Takeuchi (1998) offers an account of the Japanese cause–consequence conjunctive particles *kara* and *node* in which she argues that they should be analysed as encoding the same causal conceptual meaning while differing in the procedural constraints they impose on foregrounding and backgrounding of assumptions. Deirdre Wilson (unpublished b) has also suggested that *but* and *if* could encode both conceptual and procedural meaning. In the case of *but*, there is a possibility that what is encoded is both a conjunctive concept and the procedural information referred to above. I'll look at this in more detail in the next chapter.

3.3.3 Tests for distinguishing conceptual and procedural aspects of meaning

Though we don't yet know how (or, even whether) procedural meaning is represented in the mind nor the exact nature of the mechanisms involved in 'constraining' the inferential phase of communication, still there are plausible conclusions about the properties of procedural meaning that can be drawn simply on the basis of its non-conceptual nature. These properties concern roughly three areas: accessibility to consciousness, truth-evaluability and compositionality. For each of these, tests can be formulated that help us decide whether a given expression encodes conceptual or procedural meaning (or whether a given aspect of the meaning of an expression is conceptual or procedural). Some of these tests have been explored by Wilson and Sperber (1993), Rouchota (1998a, 1998b) and Iten (1998b).

The first area, that of accessibility to consciousness, provides the most intuitive argument, which, on its own, wouldn't be very compelling but which in conjunction with the other arguments discussed below can provide a good indication of the type(s) of meaning an expression is likely to encode. Given that concepts are mental representations in the framework of RT, it seems plausible that the meaning of conceptual linguistic devices is directly accessible to speakers' and hearers' consciousness. Thus, if we ask any native speaker of English what the words *tree, freedom* or *because* mean, we are likely to be given a more or less satisfactory paraphrase straight away. What is more, Deirdre Wilson (unpublished b) points out that English speakers are generally able to say whether two conceptual expressions, for instance, the prepositions *over*

and *on*, are synonymous or not without having to think about it for any length of time, and, in particular, without having to test whether they are intersubstitutable in all contexts. The case of procedural expressions, on the other hand, is different. Since procedures are non-representational constraints on the inferential phase of communication, there is no reason to assume that they are easily accessible, or accessible at all, to consciousness. In fact, it seems that procedures might be very much like linguistic rules in that they are adhered to (or executed) without ever being consciously accessed. Thus, if one asks English speakers what words like *but, so* and *although* mean, one is much less likely to be given a straightforward answer. In fact, even theorists are most likely to tell one how these expressions are **used**, rather than what they **mean**.

Similarly, people aren't generally able to decide whether words like *but* and *however*, or *although* and *nevertheless*, are synonymous without testing for intersubstitutability. Finally, there is some evidence from second language learning that expressions that are likely to encode procedural information are much harder to learn than clearly conceptual linguistic devices. For instance, foreign learners of English find it notoriously hard to learn the meaning (or even the proper use) of expressions such as *well, even* and *just*. The same goes for the acquisition of *doch* and *ja* for non-native speakers of German. All of these differences can be explained on the assumption that some linguistic devices encode representational information which is directly accessible to consciousness and some encode procedural (or computational) information which isn't.[10]

The second set of tests or arguments is connected with a property of concepts discussed above, namely their truth evaluability. Since concepts are representational, they can represent aspects of states of affairs in the world:

(20) The cat is in a tree.

For example, (20) can be uttered to represent a state of affairs in the actual world, say that Mary's cat is in a tree at 10 a.m. on 12 May 2004. The word *tree* contributes a constituent to the representation of this state of affairs. In other words, the presence of the word *tree* in (20) determines an aspect of a representation that can be true or false. This means that the contribution *tree* makes to this representation can affect truth or falsity too: it may correspond to an aspect of an actual state of affairs in the world, in which case the representation will be true, or it may not, in which case the representation will be false. In the case of (20), the concept encoded by *tree* truly represents an aspect of a state

of affairs if it is a tree the cat is in at 10 a.m. on 12 May 2004. This means that the presence of a given conceptual expression in an utterance can be objected to by an utterance of 'That's not true'. For instance, a hearer objecting to the presence of *tree* in (20) could utter (21) to make known her objection:

(21) That's not true; the cat is on the mat.

Interestingly, this property of truth evaluability doesn't just seem to apply to cases where a conceptual expression is judged to contribute to 'the truth-conditional content of the utterance'. Consider, for example (22):

(22) Sadly, I can't come to your party.

Here, most people would judge that, *sadly* doesn't contribute to the main truth-conditional content of the utterance: for most people (22) is true if and only if the speaker can't go to the hearer's party and the utterance's truth or falsity does not depend on whether or not the speaker is sad that she can't go to the party. Nevertheless, someone objecting to the speaker's use of *sadly* could felicitously utter (23):

(23) That's not true: you're not at all sad.

This indicates that *sadly* contributes a constituent to a representation communicated by the utterance.[11]

Now, since procedural expressions don't encode representations of any kind, they can't be true or false. Therefore, one would expect it to be impossible to object to the inappropriate use of a procedural expression with an utterance of 'That's not true'. And, indeed, there are expressions for which this is the case. For example, a hearer objecting to the speaker's use of *after all* in (18) couldn't utter (24):

(18) (a) Joan loves Bach. (b) After all, she is very discerning.
(24) That's not true: you're not using *she's very discerning* as a premiss.
or: That's not true: loving Bach doesn't follow from being discerning.

Finally, we should expect to find significant differences between conceptual and procedural expressions as far as compositionality is concerned. It seems reasonably clear what it means for two or more concepts to combine: generally atomic concepts combine to form complex larger

conceptual representations. For instance, the concepts BLUE and EYES combine to form the complex concept BLUE EYES. Of course, this isn't always completely straightforward and there are a number of questions around the issue of just how it is that two or more concepts combine (see, for instance, Lahav, 1989; and Blutner, 2002). Whatever the precise workings of the compositionality of concepts, it is undisputed that concepts can combine and modify each other. When it comes to procedural expressions, the issue of compositionality is much less clear. Obviously, several procedural expressions can occur in one and the same utterance, so, one way or another, they have to 'combine'. For instance, Rouchota (1998a,b) argues that *so, then* and *too* in (25) and (26) all encode procedural meaning and in these utterances *so* and *then*, and *so* and *too*, must interact in some way:

(25) *A* There's a bird in the garden.
B So, the cat didn't eat them all then.
(Rouchota, 1998a, p. 117)

(26) Jane has a year off. So she's going to finish her book too.
(Rouchota, 1998b, p. 37)

However, these procedures do not seem to combine to form 'larger' or more complex procedures but to apply individually, either all at the same time or one after another. There is no evidence that they can modify each other or be modified by concepts in the same utterance. While it is quite easy to combine words that encode conceptual information with each other to an almost infinite degree of complexity, combining procedural expressions doesn't seem to work. It is, for instance, impossible to apply descriptive negation or adverbials to discourse connectives like *so, but, however, after all*. For example, while the adverbial *very much* can clearly modify *as a result* in (27), an attempt at using the same adverbial to modify *so* (which might be seen as roughly synonymous with *as a result* in these examples) leads to the unacceptable (28):

(27) He kept teasing me. Very much as a result, I hit him.
(28) He kept teasing me. *Very much so, I hit him.

I will not discuss the issue of compositionality further at this point. However, my discussion of *but* and *although* in Chapters 4 and 5, as well as observations on *even, too* and *also* in Section 3.6.7 of this chapter, will provide more detailed arguments.

Having just outlined some tests that should make it possible to distinguish what is encoded conceptually from what is procedurally encoded, I would like to issue the following caveat: it is far from clear that all procedural, or rather 'non-conceptual', meaning is cut to the same pattern. For instance, *after all* and *nevertheless* are both likely to encode procedural meaning, but, while *after all* is likely to indicate the type of cognitive effect the hearer should derive, *nevertheless*, if Blakemore's (2000, 2002) analysis is correct, constrains the context in which the hearer is to process the utterance. Therefore, the best course of action seems to be to deal with the meaning of apparently non-conceptual expressions on a case-by-case basis, trying to give an account of individual expressions rather than starting with assumptions about the properties all non-conceptual expressions share and trying to build an account of individual expressions on the foundation of general assumptions about procedural meaning. Of course, it will be desirable, in the long term, to compare different procedural semantic accounts and look for any generalisations there might be to draw, either concerning all procedural meaning or, at least, concerning different subclasses of procedural meaning.

3.4 Explicit and implicit communication

3.4.1 Drawing the explicit/implicit distinction

The second central distinction in Relevance Theory is one between ways in which assumptions can be communicated. I've mentioned above that what is communicated is a set of assumptions (entertained mentally as conceptual representations). It is widely accepted that assumptions can be communicated explicitly or implicitly and the distinction between explicit and implicit communication has been drawn in many different ways. I will not discuss the literature on the explicit/implicit distinction in any detail here (for an exhaustive discussion, see Carston 2002). However, I will look at the ordinary language use of the terms 'explicit' and 'implicit', explain how the distinction is drawn in RT and give some justification for drawing it in this way.

Let me start with an unproblematic example. If with her utterance in (29) Mary also intends to convey (31), I think the general consensus would be that Mary has communicated explicitly the information in (30) while she has implicitly communicated (31):

(29) Scenario: Joan and Mary are discussing where they should take Susan on holiday. Joan suggests they take her to Munich.

Mary She's been there.

(30) SUSAN$_X$ HAS BEEN TO MUNICH[12]
(31) JOAN$_Y$ AND MARY$_Z$ SHOULD NOT TAKE SUSAN$_X$ TO MUNICH

For many people, 'explicit' seems to be synonymous with 'linguistically encoded'. The question is whether this ordinary language understanding of the term 'explicit' can be employed when it comes to characterising 'what is communicated explicitly'. In other words, is it a tenable hypothesis that an assumption is communicated explicitly if and only if it is linguistically encoded? The linguistically encoded content of Mary's utterance in (29) falls short of what she intends to communicate explicitly, that is (30), because *she* and *there* require reference assignment. This means that, even in relatively straightforward cases, what is linguistically encoded and what is explicitly communicated are distinct and one should differentiate between the ordinary language use of 'explicit' and what is 'explicitly communicated'.

In fact, the radical version of the semantic underdeterminacy thesis embraced by Carston (2002) and adopted here predicts that what is linguistically encoded seldom, if ever, determines a complete proposition. This means that, on the 'explicit = encoded' view, what is explicitly communicated is never fully propositional, yet surely what speakers communicate has to be fully propositional.[13] This means that the first hypothesis, that only what is linguistically encoded can be communicated explicitly, does not constitute a coherent position: what is communicated has to be fully propositional, while, due to semantic underdeterminacy, what is linguistically encoded virtually never is.

What is more, even if semantic underdeterminacy didn't exist and every sentence encoded a complete proposition, the hypothesis that only what is linguistically encoded can be explicitly communicated would not be tenable because of the undeniable existence of semantic ambiguity. In cases of semantic ambiguity, where a linguistic form encodes more than one sense, what is linguistically encoded doesn't yield just one proposition but several. Surely, it's counter-intuitive to claim that in such cases the speaker is explicitly communicating several assumptions, but the only alternative in the above framework is to say that the speaker isn't explicitly communicating anything, and that is no less counter-intuitive than the first option. This means that equating explicit communication with linguistic encoding doesn't yield a satisfactory explicit/implicit distinction.

On the basis of the examples discussed so far, one might consider a modification to the above definition of explicit meaning along the following lines. True, disambiguation and reference assignment are pragmatic

processes without which nothing fully propositional can be explicitly communicated. However, in both cases, although the elements in question don't **encode** their contribution to what's explicitly communicated, there is linguistic material (either an indexical or an ambiguous expression) in the utterance that **licenses** (and, in fact, mandates or obliges) the pragmatic derivation of a constituent of the explicitly communicated proposition. Therefore, a second hypothesis would be that an assumption is explicitly communicated if and only if it is linguistically licensed. There are, however, many examples for which this second hypothesis won't work. First, consider Mary's utterance in (32), say, uttered to communicate the assumptions in (33) and (34). It seems uncontentious that, in the given scenario, the assumption in (34) is communicated implicitly, while that in (33) is explicitly communicated:

(32) *Peter* Let's go for a walk.
Mary It's raining.

(33) IT'S RAINING AT TIME T IN THE PLACE WHERE PETER$_X$ WANTS TO GO FOR A WALK.

(34) MARY$_Y$ DOESN'T WANT TO GO FOR A WALK (AT TIME T).

Though this may not be immediately obvious, even after reference assignment and disambiguation the linguistic expressions in Mary's utterance in (32) don't determine a complete proposition: her utterance is only truth evaluable if a place constituent is derived. This constituent is also necessary for the derivation of the implicitly communicated assumption in (34). After all, if Mary and Peter were in North London and Mary was explicitly communicating that it was raining in Timbuktu (an assumption perfectly compatible with the linguistic material Mary has uttered), Peter wouldn't be justified in assuming that Mary was implicitly communicating that she didn't want to go for a walk in North London: there is no sound inference leading directly from the premiss that it is raining in Timbuktu to the conclusion that someone doesn't want to go for a walk in North London, while there is such an inference from the premiss that it is raining in North London to this conclusion. The problem with this is that there is no overt indexical in Mary's utterance that linguistically licenses the derivation of the place constituent needed. Therefore, the only way in which one could preserve the hypothesis that only linguistically licensed assumptions are communicated explicitly would be by postulating non-overt or 'hidden' indexicals (maybe of the sort proposed by Stanley, 2000). Carston (2000),

Wilson and Sperber (2002) and Recanati (2002) argue convincingly against such a course of action, which means that hypothesis two has to be abandoned too.

Another, reasonably intuitive, option is to say that an assumption is communicated explicitly if it corresponds to the truth-conditional content of the utterance. This hypothesis seems to make the right predictions for the examples discussed so far; (30) is the truth-conditional content of Mary's utterance in (29), and (33) that of Mary's utterance in (32). This hypothesis can also account for examples involving semantic ambiguity. However, it runs into difficulties when it comes to utterances of non-declarative sentence types. Let's assume that, in the scenario described in (29), Joan next utters (35):

(35) Has she been to Madrid?

Obviously, (35) has no truth conditions and therefore, on the second hypothesis, Joan can't be explicitly communicating anything with her utterance here. Of course, one could modify the hypothesis to say that the **proposition expressed** is communicated explicitly. In the case of (35) that would be something like (36):

(36) SUSAN$_X$ HAS BEEN TO MADRID.

Needless to say, the problem with this is that (36) is not communicated at all and therefore can't be what's communicated explicitly. So, once again, we are left with nothing being communicated explicitly. However, that goes against intuitions. Surely by her utterance of (35) Joan has explicitly communicated the information in (37) or (38):

(37) JOAN$_Y$ IS ASKING WHETHER SUSAN$_X$ HAS BEEN TO MADRID.
(38) JOAN$_Y$ WANTS TO KNOW WHETHER SUSAN$_X$ HAS BEEN TO MADRID.

The discussion so far has shown that neither the hypothesis that explicit communication amounts to linguistic encoding, nor the hypothesis that what's explicitly communicated has to be linguistically licensed, nor the hypothesis that what's explicitly communicated is the truth-conditional content of the utterance makes the right predictions. I'll now introduce Sperber and Wilson's (1986) explicit/implicit distinction and defend the claim that it comports with intuitions better than the three possibilities discussed so far.

3.4.2 The relevance-theoretic explicit/implicit distinction

Sperber and Wilson (1986, p. 182) claim that all communicated assumptions fall into one of two categories: They're either implicatures (a notion familiar from Grice) or explicatures (a notion defined by Sperber and Wilson to parallel Grice's implicature). According to them, an assumption communicated by an utterance is an explicature if and only if it is a development of a logical form encoded by that utterance. As mentioned above, the logical form of an utterance is a (sub-propositional) conceptual representation or assumption schema. The notion of development covers not just such linguistically directed processes as disambiguation and reference assignment but also free enrichment. In other words, explicatures may have constituents that are not present (or called for) in the logical form encoded by the utterance (so-called 'unarticulated' constituents). This raises the question of how much development goes into an explicature. At this stage, I'll just say that developments of the logical form include: (a) the processes that take the hearer from the logically incomplete logical form to a complete proposition expressed (though this is not yet quite right); and (b) the processes involved in embedding the proposition expressed under speech act or propositional attitude descriptions. On this view, explicatures are derived by a mixture of linguistic decoding and pragmatic inference. Implicatures are given a mainly negative definition: They are any communicated assumptions that are not explicatures, that is, assumptions whose conceptual content is supplied purely inferentially (although that inference may be constrained by procedural meaning). Let me demonstrate that this distinction makes the right predictions for the examples discussed so far in this section.

Clearly, the assumption in (30) is a development of a logical form encoded by Mary's utterance in (29): it is derived by decoding and reference assignment.[14] (33) is a development of the logical form encoded by Mary's utterance in (32), derived by decoding, reference assignment and enrichment. Finally (37) is a development of a logical form encoded by (35). Here, the processes that lead to the recovery of the explicature are not just decoding and reference assignment but also an embedding of the proposition expressed under the speech act description JOAN$_Y$ IS ASKING WHETHER.[15]

On this picture, a distinction is made between the **proposition expressed** and **higher-level explicatures**. The proposition expressed is the basic assumption to which the speaker may be expressing an attitude. This is traditionally seen as the truth-conditional content of the utterance.[16] For instance, in making her utterance in (29) she might be

expressing the proposition in (30) and simultaneously expressing her attitude to it, as in (39):

(30) SUSAN$_X$ HAS BEEN TO MUNICH.
(39) MARY$_Z$ BELIEVES THAT SUSAN$_X$ HAS BEEN TO MUNICH.

If (39) is communicated by Mary's utterance in (29), it is a higher-level explicature of that utterance, because it is a development of an encoded logical form that involves embedding under a propositional attitude description. Note that the proposition expressed in (30) is a basic explicature of the same utterance. However, the proposition expressed is not always communicated and thus not always an explicature. For example, the utterance in (35) expresses the proposition in (36), as would the corresponding declarative, but this isn't one of its explicatures because it isn't communicated:

(36) Susan$_X$ has been to Madrid.

The way the explicit/implicit distinction is drawn in RT requires more than linguistically encoded content and allows more than truth-conditional content to count as what is communicated explicitly. At the same time, not all linguistically encoded content necessarily contributes to what is communicated explicitly on a given occasion. Procedural linguistic meaning, which, by definition, doesn't appear in the logical form(s) encoded by the utterance, can affect either the explicit or the implicit side of communication. Conceptual linguistic meaning, on the other hand, necessarily is part of what is explicitly communicated, since it appears in the logical form(s) encoded by the utterance and will, as a consequence, also be part of any 'development' of a logical form. This means that the two central distinctions made in RT yield a three-way classification of linguistic expressions in use: (a) conceptual expressions that contribute to explicit communication; (b) procedural expressions that contribute to explicit communication (as will be seen in Section 6 of this chapter); and (c) procedural expressions that contribute to implicit communication.

We now have the machinery to classify all natural language expressions, including, of course, the 'non-truth-conditional expressions' discussed in Chapter 2. In Section 3.6, I'll indicate how some of these expressions could be (and, in some cases, have been) analysed within the relevance-theoretic framework outlined so far. Before that, one further question on the topic of the explicit/implicit distinction needs to

be addressed, namely how do we distinguish between the explicatures and the implicatures of an utterance?

3.4.3 Distinguishing explicatures from implicatures

Recall that explicatures are defined as communicated developments of linguistically encoded logical forms and implicatures as communicated inferred assumptions. In other words, both explicatures and implicatures are derived inferentially at least to some extent and a pragmatically derived aspect of utterance meaning may therefore be part of the explicit or the implicit content of the utterance. This raises the question of how the theorist can distinguish between explicatures and implicatures. One might also ask whether the distinction plays any conscious psychological role for the hearer.

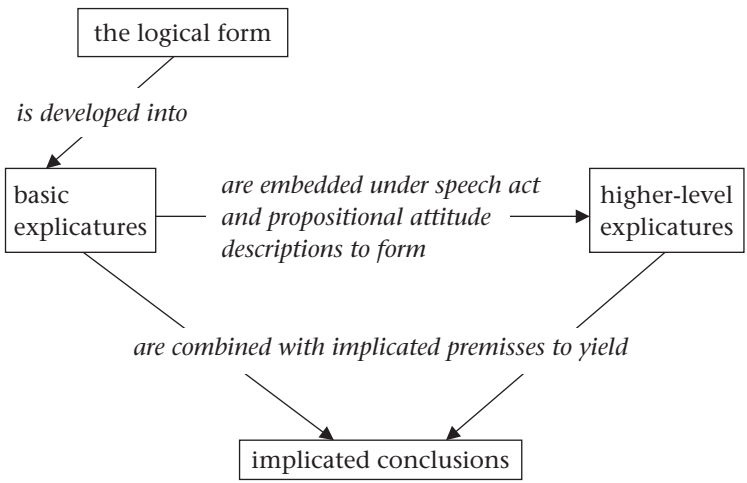
Let me start with the second question. As mentioned above, the hearer's aim in utterance interpretation is to discover what the speaker intended to communicate by uttering what she did in the particular circumstances in which she made her utterance. In other words, in RT terms, what is crucial is the content of the speaker's communicative intention: the set of assumptions she intends to make manifest or more manifest by her utterance. Clearly, this includes the whole range of communicated assumptions, both explicatures and implicatures. From a hearer's point of view, it may not matter all that much whether a given assumption has been communicated explicitly or implicitly (that is, whether it is an explicature or an implicature of the speaker's utterance). Certainly, as far as recall is concerned it doesn't: impressionistically, people remember the main import of an utterance, those implications it has that achieve the greatest number of cognitive effects, but they don't, on the whole, remember which of the communicated assumptions were explicatures. Indeed, it would be interesting to check this impression in empirical research, along with the hypothesis that people might judge that a speaker has not been truthful, even though the alleged 'truth-conditional content' of the utterance was true, if it turns out that an assumption strongly implicated by the speaker was false. For instance, I believe that most hearers of Mary's utterance in the scenario in (40) would at least feel that they had been misled, if not lied to, if it turned out that she had no intention of posting John's letter:

(40) *John* This letter urgently needs posting and I don't have a minute to do it.
Mary I've got to go to the post office anyway.

Clearly, this isn't an explicature of Mary's utterance, but it certainly is a very strong implicature. This shows that ordinary speakers and hearers may well not distinguish between explicit and implicit communicated assumptions when making judgements about the truth or falsity of utterances.

However, from the theorist's point of view, there is an interesting and important distinction to be made between the explicatures and the implicatures of a linguistic utterance. This is particularly true in the framework of Relevance Theory, where the linguistically encoded content of an utterance, its logical form, is seen as the (sub-propositional) input to a number of inferential processes, constrained by the hearer's (unconscious) search for optimal relevance, which result in the recovery of the set of communicated assumptions. Although there may be (and, I suspect, often is) a process of mutual adjustment[17] and fine-tuning between explicatures and implicatures, the finished picture, as it were, has to look as in (41):

(41)



In other words, basic explicatures (communicated propositions expressed) depend on the logical form, higher-level explicatures depend on basic explicatures, and neither implicated premisses nor implicated conclusions can be derived without explicatures. This means that there is an important difference between explicatures and implicatures (implicated premisses and conclusions): while the former are developments of the logical form(s) encoded by the utterance and always function as 'premisses' or input to inferential processes that lead to further communicated

assumptions, the latter are not developments of the logical form(s) and only some of them function as premisses. The answer to the question of how one might tell the difference between an utterance's explicatures and implicatures lies in the picture captured by the diagram in (41). Let me illustrate this using an example.

It is widely acknowledged that utterances containing *and*-conjunctions often receive a causal interpretation. For instance, an utterance of (42) is naturally interpreted as communicating (43). The question is whether (43) is an explicature of (42), or one of its implicatures:

(42) Joan dropped the teapot and Mary screamed.
(43) JOAN$_X$ DROPPED TEAPOT$_Z$ AND, AS A CONSEQUENCE, MARY$_Y$ SCREAMED

Superficially, the answer might not seem very difficult. (43) looks like a development of a logical form encoded by (42). It must, therefore, surely be an explicature. Surface form might be a useful heuristic, particularly in cases where there is no resemblance between the linguistically encoded content of the utterance and the communicated assumption whose status is under investigation. For instance, there can be no question of (44) being an explicature of (42), even though the utterance might well be used to communicate such an assumption:

(44) MARY$_Y$ IS EASILY STARTLED.

However, superficial containment, or even an entailment relation between communicated assumption and logical form, is not the deciding factor. Instead, what matters is the role an assumption plays in the inferential process of utterance interpretation. An assumption can only be an explicature if it functions as a premiss in deriving contextual implications (or other cognitive effects). In the case of (42), (43) must be an explicature because it plays a vital role in deriving cognitive effects, such as the contextual implication in (44). This implication can only be derived if (43) is combined with a contextual assumption (implicated premiss) along the lines of (45):

(45) IF *X* SCREAMS AS A CONSEQUENCE OF *Y* DROPPING SOMETHING, THEN *X* IS EASILY STARTLED.

This line of reasoning also shows that (46) is not likely to be an explicature of (42): it does not seem to lead to any cognitive effects at all:

(46) JOAN$_X$ DROPPED TEAPOT$_Z$ & MARY$_Y$ SCREAMED

To sum up this subsection, the difference between explicatures and implicatures may well not matter to hearers in any conscious way. However, in the subconscious process of utterance interpretation the two types of assumptions play importantly different roles: explicatures must function as premisses, while implicatures come in the shape of implicated premisses and implicated conclusions. This gives the theorist a useful tool for distinguishing between explicatures and implicatures.

3.5 Relevance Theory and truth conditions

The exposition of the relevance-theoretic view given so far shows that it is possible to account for linguistic meaning and communication without reference to truth conditions at all. I would like to argue that such an approach is desirable for the following reasons.

As discussed in Chapter 1, the evidence that there is no such thing as 'the truth conditions of the sentence' is quite overwhelming. This leaves utterances in contexts as possible bearers of truth conditions. More precisely, it leaves the propositions expressed by utterances of sentences in contexts as bearers of truth conditions and hence truth-values. As mentioned in Chapter 1, this notion is not likely to be of any use when it comes to accounting for linguistic meaning. However, it might still be useful for a theory of utterance interpretation. In particular, it would still explain the 'aboutness' intuition. The question this raises is how we (as theorists and as speaker-hearers) work out what the truth conditions of a particular utterance are.

There seems to be some consensus that we should trust our intuitions (and those of other speaker-hearers) when it comes to deciding what the truth conditions of a particular utterance might be. This assumption is captured most clearly in Recanati's Availability Principle, according to which:

> In deciding whether a pragmatically determined aspect of utterance meaning is part of what is said, that is, in making a decision concerning what is said, we should always try to preserve our pre-theoretic intuitions on the matter.[18]
>
> (Recanati, 1993, pp. 246–50)

The problem with this is that in many cases our intuitions are far from clear. For instance, there is a fair amount of disagreement among theorists, but also among ordinary speakers and hearers, as to whether or not

utterances of (47) and (48) are true in the indicated scenarios:

(47) The man drinking a martini is a famous philosopher. [where the man indicated is indeed a famous philosopher but isn't drinking a martini]

(after Donnellan, 1966/1977, p. 48)

(48) Napoleon, who recognised the danger to his right flank, personally led his guards against the enemy position. [where Napoleon didn't recognise the danger to his right flank, though he did lead his guards against the enemy position]

(Frege, 1892, p. 44)

Since intuitions are not always straightforwardly clear, it is standard practice in RT to use what has been termed the 'scope test' to sharpen intuitions. Indeed, relevance-theorists have generally relied on this test, where Recanati has used his Availability Principle.[19] The scope test involves the embedding of the utterance in question in the scope of a logical operator, such as *if … then* or *or*, or, alternatively, under the scope of a causal connective, such as *because*. The idea is that a given aspect of meaning is part of the truth-conditional content of the utterance (the proposition expressed, or Recanati's what is said) if it falls under the scope of the operator. For instance, *it was raining* is part of the truth-conditional content of (49), because it falls under the scope of *because* in (50), and *if* in (51). In the former, it is understood to be part of the cause of Peter's getting wet, while, in the latter, it is part of the circumstances in which Peter will have got wet. The assumption that Peter's going out was unexpected, given the rain or that Peter's going out and it raining are somehow incompatible is not understood to be part of the cause of Peter's getting wet or conditions under which Peter will have got wet in (50) and (51). This means that the meaning of *although* doesn't fall in the scope of either *because* or *if … then* and is, therefore, 'non-truth-conditional':

(49) Peter went out although it was raining.
(50) Because Peter went out although it was raining, he got wet.
(51) If Peter went out although it was raining, he'll have got wet.

One of the problems with the scope test is that not all utterances can be embedded under a logical operator with grammatical results (see, for instance, Ifantidou, 1994, pp. 140–1). Furthermore, even in cases where

an embedding yields grammatical results, the resulting intuitions in many instances are far from clear. Finally, for cases like (47) and (48), while the scope test does give a clear result, it is different from many people's intuitions regarding the unembedded utterances. For instance, many people would say that someone uttering (47) in a scenario in which the man referred to is a famous philosopher but only looks as if he is drinking a martini has said something true and something false. However, when this utterance is embedded as in (52) and (53), the definite description doesn't seem to fall under the scope of *because*:

(52) Because the man drinking a martini is a famous philosopher, you should treat him with respect.
(53) Because the man drinking a martini is a famous philosopher, he doesn't need another drink yet.

In other words, someone uttering (52) is saying that the reason the hearer should treat a certain person with respect is that he is a famous philosopher – the fact that he is drinking a martini doesn't enter into the picture. (53) shows that, even if the embedding is set up in such a way that the man's drinking a martini is potentially important (here it supports the claim in the main clause), it doesn't come across as being in the scope of *because*. That is, here the man's drinking a martini might well be a reason for his not needing another drink yet, but an utterance of (53) still conveys that the reason for his not needing another drink yet is that he is a famous philosopher.

Similarly, there is a widespread intuition[20] that someone who utters (48) in a scenario in which Napoleon didn't recognise the danger to his right flank (but he did personally lead his guards against the enemy position) has said something true and something false at the same time. Again, if one embeds this utterance as in (54) and (55), the non-restrictive relative clause doesn't seem to fall in the scope of *because*:

(54) Because Napoleon, who recognised the danger to his right flank, personally led his guards against the enemy position, he won the battle.
(55) Because Napoleon, who recognised the danger to his right flank, personally led his guards against the enemy position, I believe that he was as vigilant as ever.

That is, in both these examples the reason for the state of affairs described in the main clause is understood to be that Napoleon personally led his

guards against the enemy position. The fact that he recognised the danger to his right flank doesn't enter the picture even in (55), where the main clause has been chosen so as to make it more likely that his recognition of the danger is part of the reason for the speaker's belief that Napoleon was as vigilant as ever.

In recent literature it has been suggested, for instance by Neale (1999) and Bach (1999), that the fact that people's intuitions in these cases vary so much can be explained if one drops the assumption that examples of this sort express one and only one proposition. Instead, these philosophers argue, such utterances express two or more propositions, each of which comes with its own truth condition. Crucially, the idea is not that such utterances express the **conjunction** of all these propositions. On this picture, not all the propositions expressed by an utterance are equally important and which one is the most important on a given occasion is determined by contextual factors. Bach and Neale maintain that people will agree that an utterance can be true in case only one proposition is true and the others are false only when they are forced to decide whether the whole utterance is true or false. In such a case, the utterance will be judged true just in case the most important of the propositions expressed is true. What implications does this have for the scope test?

It seems that the scope test does a reasonably good job of pinpointing the most important proposition expressed. However, operators such as *if … then, or* and *because* can only take single propositions in their scope. (56), which constitutes an attempt at embedding two non-conjoined propositions in the scope of *because*, is ungrammatical:

(56) *Because Peter went out, it was raining, he got wet.

Because, according to Bach and Neale, utterances like (47) and (48) express multiple propositions (rather than a single conjunctive proposition), the scope test is not a suitable tool for determining whether a given assumption is a proposition expressed by such utterances or an implicature – *if, or* and *because* can only ever take scope over a single proposition. So, if Bach and Neale are right, and simple utterances can express multiple propositions, then it is no longer true that a given aspect of meaning is part of the (or a!) proposition expressed by an utterance just in case it falls in the scope of *if, or* or *because* when the utterance is embedded under one of these operators. More importantly, Bach's and Neale's observations, as well as those of Ifantidou-Trouki (1993) and Ifantidou (1994, 2001), mean that there is no such thing as

the single proposition expressed by an utterance and the single truth condition of an utterance. Instead, utterances may express several propositions and have several truth conditions. This means that the truth conditions of an utterance may well be determined by more than one proposition and that working out what the truth conditions of a given utterance are is not a straightforward matter of consulting native speakers' intuitions. Given such complications, any approach to linguistic meaning and communication that can do without the notion of truth conditions might well be at an advantage. There are, however, two facts that such an account must be able to capture:

(i) the widespread intuition that linguistic utterances are **about** things in the world; and
(ii) the fact that speaker-hearers do have intuitions (however hazy) about what it takes for an utterance to be true

If RT can capture (i) and (ii), I believe it has the edge over any account of linguistic meaning and communication that relies on the notion of truth conditions.

Indeed, the first fact is relatively easily accounted for within RT. Recall that the result of utterance interpretation is a set of fully propositional mental representations or assumptions (the intended explicatures and implicatures of the utterance). The very fact that these assumptions are representational means that they are **about** something. Indeed, it is entirely possible that these mental representations could be given a truth conditional semantics. Let me stress once more, however, that this does not mean that the RT account of linguistic meaning is ultimately truth conditional: there is very little direct mapping between the linguistic meaning of the utterance and the assumptions the speaker intended to communicate with that utterance. The hearer fills the gap between linguistic meaning and the intended interpretation inferentially, guided by the communicative principle of relevance. Truth-conditional semantics does have a role on this account, namely when it comes to capturing the thought–world relation. Note, however, that truth-conditional semantics of this sort is not linguistic semantics.

Capturing (ii) relies on a particular view of the meaning of declarative mood indicators. It seems that speaker-hearers have the intuition that there is something that makes an utterance true or false if the utterance is of declarative form. This can be explained by Wilson and Sperber's (1988a) analysis of the semantics of mood indicators, according to which declarative mood indicators encode the information that the

speaker is presenting the proposition expressed by the utterance as a description of the actual world. If this is correct, one would expect hearers to apply standards of truth or falsity to declarative utterances and declarative utterances only. This does, indeed, seem to be the case and I therefore conclude that the relevance-theoretic view of linguistic meaning presented here does have the advantage over truth-conditional approaches.

3.6 Varieties of 'non-truth-conditional' meaning

3.6.1 Preliminary remarks

As promised in the introduction to this chapter, in this Section I will give an indication of how the different types of 'non-truth-conditional' devices listed in Chapter 1 can be (and in some cases have been) treated within the relevance-theoretic framework outlined above. Obviously, I won't be able to do more than give rough sketches of analyses – giving complete analyses of each type of device (never mind each individual case) would mean writing several more books (and, for some devices, people have done just that). The one subset of 'non-truth-conditional', expressions I will discuss in depth are the 'concessive' expressions *but, although* and *even if*. There is good evidence, which I will present in Chapters 4, 5 and 6, that they encode procedural meaning that affects the implicit side of communication.

3.6.2 Indexicals

Sticking with the order of presentation adopted in the first chapter, let me start with indexicals (and other referential expressions):

(57) *She* kissed *him yesterday*.
(58) *I*'ll have some of *that*.

The propositions expressed by utterances of (57) and (58), say those in (59) and (60), obviously contain some concepts (such as SUSAN_x)that are there because of the speaker's use of the indexicals *she*, *he*, *yesterday*, *I* and *that*:

(59) SUSAN_x KISSED PETER_y ON 1 APRIL 2004
(60) MARY_x WILL HAVE SOME OF CARROT CAKE_z

For instance, the individual concept SUSAN_x appears in the proposition expressed by (57) at least partly because the speaker has uttered the word

she. However, it's equally obvious that the way in which *she* leads to the concept SUSAN$_X$ is fundamentally different from the way in which *kiss* leads to the concept KISS. In simple terms, the difference is this: independent of the context in which (57) is uttered, *kiss* will (at least initially[21]) always lead to the concept KISS. The concept that *she* 'leads to', on the other hand, differs across contexts; not even initially does *she* always lead to the concept SUSAN$_X$.

Since indexicals always seem to result in a concept that integrates with the rest of the conceptual material encoded by an utterance, the question whether they affect explicit or implicit communication can be answered relatively simply: they always affect the explicatures of an utterance. The question whether they encode conceptual or procedural information is slightly less straightforward to answer, though there is a fair amount of evidence to support the hypothesis that indexicals encode procedural information.

One such piece of evidence is simply that, if indexicals were to encode concepts, it's hard to see what those concepts could be. As just mentioned, indexicals 'contribute' or 'lead to' different concepts in different contexts. So, it seems quite obvious that *she*, for instance, doesn't encode SUSAN$_X$. However, there is a possibility that *she* could encode a much more general concept, like A CERTAIN FEMALE, which always has to be enriched to someone much more specific before it can appear in the explicit content of an utterance. This seems to be the approach taken by Bach (1987, pp. 175–94). Even if this were the right way of accounting for what is encoded by the pronoun *she*, there would be a fundamental difference between *she* and other expressions with conceptual meaning, like *kiss*, for example: The proposition expressed by an utterance containing *she* never contains the encoded conceptual content of *she*, while the proposition expressed by an utterance containing *kiss* often does just contain the concept the word encodes. For instance, a speaker uttering (61) cannot be taken to intend to express the proposition in (62); (61) always has to express a more specific proposition, such as the one in (63):[22]

(61) She likes chocolate.
(62) A CERTAIN FEMALE LIKES CHOCOLATE.
(63) JANE$_X$ LIKES CHOCOLATE.

This means that, at the very least, the conceptual representation A CERTAIN FEMALE can't be all that is encoded by *she*. In addition there must be something that tells the hearer that he is to supply a particular referent.

This additional something is most likely to be procedural. Therefore, at the very least, pronouns like *she* must encode conceptual **and** procedural information. Furthermore, an explanation would have to be given for why the alleged conceptual content never forms part of the proposition expressed.

3.6.3 Mood indicators

(64) You eat an apple a day.
(65) Eat an apple a day.
(66) Do you eat an apple a day?

As mentioned in Chapter 1, what (64), (65) and (66) have in common when they are uttered to the same hearer in the same context is that they all express the same proposition, for instance something like (67):

(67) JOHN$_x$ EATS AN APPLE A DAY

Of course, (64), (65) and (66) are also crucially different from each other, for instance in that only an utterance of (64) communicates the proposition expressed. The standard speech act account captures these differences by saying that the mood indicators encode information about the type of speech act the speaker intends to perform in making her utterance. Thus, declaratives are linked with assertive speech acts which commit the speaker to the truth of the proposition expressed, imperatives with directive speech acts which are seen as requests for the hearer to perform the action described by the proposition expressed, and interrogatives are linked with a special sub-type of directive speech act, namely a request for information.

Wilson and Sperber (1988a) argue convincingly against such a standard speech act account and, indeed, against any account that analyses the meaning encoded by mood indicators in speech act terms. Here, I will just look at some of the arguments Wilson and Sperber (1988a) give against the standard speech act account of imperatives.

Even leaving aside non-literal and non-serious cases, Wilson and Sperber (1988a, pp. 80–1) argue that there are a whole host of utterances in the imperative mood which are not requests by the speaker for the hearer to perform the action described by the proposition expressed. Imperatives can be used to perform, not just requests for action, but also a range of other (non-directive) speech acts, such as giving advice, as

in (68), giving permission, as in (69), or wishing people well, as in (70):

(68) [instruction on a carton of fruit juice]: Shake well before opening.
(69) [adult to a child who is looking longingly at a box of chocolates]: Take one.
(70) [shop assistant to customer who's leaving the shop]: Have a nice day.

In none of these examples are the conditions for a felicitous performance of a directive speech act met, yet they are all perfectly acceptable, humdrum uses of the imperative. In (68), the writer of the instruction isn't trying to get the consumer to do anything, she is merely indicating that it would be in the hearer's interest to shake the carton of fruit juice well before opening it. In (69), too, the adult isn't trying to get the child to take a chocolate, she is simply indicating that it's all right for the child to do so. Finally, in (70), the shop assistant isn't trying to get the customer to have a nice day – whether people do or don't have nice days is usually not up to them – she is just indicating that she regards it as desirable that the customer should have a nice day.

Wilson and Sperber (1988a) (also Sperber and Wilson, 1986) capture the semantics of mood indicators in terms of propositional attitudes. They distinguish between descriptive and interpretive propositional attitudes. Descriptive attitudes, according to them (1988b, p. 149), are attitudes to states of affairs. For instance, believing is seen as a descriptive attitude, because it is an attitude to a state of affairs. For example, if Mary believes that there are five eggs in her fridge, she has an attitude to the state of affairs of there being five eggs in her fridge, namely she sees it as an actual state of affairs, that is, a state of affairs that holds in the actual world. Interpretive propositional attitudes, on the other hand, are attitudes towards representations of states of affairs, such as propositions, thoughts and utterances. Wilson and Sperber analyse declarative and imperative mood indicators as encoding information about descriptive attitudes, while they see interrogative mood indicators as encoding information about interpretive attitudes. On their analysis, declaratives encode the information that the speaker entertains the proposition expressed as a representation of an actual (or possible) state of affairs. Imperatives encode the information that the speaker entertains the proposition expressed as a representation of a desirable and potential state of affairs. Finally, interrogatives encode the information that the speaker entertains the proposition expressed as an interpretation of a relevant representation.

The contribution of mood indicators to utterance interpretation clearly falls on the explicit side. For instance, the declarative mood indicators in (65) lead to the construction of a higher-level explicature along the lines of (71):

(71) Mary is presenting the proposition that John eats an apple a day as a description of an actual state of affairs.

Wilson and Sperber (1988a) use (72) as a convenient shorthand for this:

(72) Mary is saying that John eats an apple a day.

Similarly, they use *telling* as a shorthand for *presenting the proposition expressed as a description of a desirable and potential state of affairs* and *asking* for *presenting the proposition expressed as an interpretation of a relevant representation*.

This leaves the question of whether mood indicators encode conceptual or procedural information. The following quote from Sperber and Wilson indicates that, on their view, the meanings of mood indicators are most likely to be procedural:

> Thus, illocutionary-force indicators such as declarative or imperative mood or interrogative word order merely have to make manifest a rather abstract property of the speaker's informative intention: the direction in which the relevance of the utterance is to be sought.
>
> (Sperber and Wilson, 1986, p. 254)

This hypothesis is supported if one applies the tests for procedural meaning discussed in Section 3.3.3. First, at least in English, mood indicators are not what could be called 'words' by any stretch of the imagination. So, it's difficult to pinpoint even what it is the meaning of which one would be trying to bring to consciousness. Along similar lines, it's hard to imagine what it is one would be trying to 'combine' with other expressions to test the compositionality of mood indicators. Finally, it doesn't look as if the meaning of mood indicators is truth evaluable – B's utterance in (73) is completely unacceptable:

(73) *A* Do you eat an apple a day?
B *That's not true. You're not asking me whether I eat an apple a day/You don't think that 'I eat an apple a day' resembles a relevant thought or utterance.

On the other hand, the assumption that mood indicators encode procedural information that guides the hearer in the inferences he goes through in the process of deriving the higher-level explicatures of the utterance is quite plausible.[23] They could do this, for example, by making more accessible certain kinds of speech act or propositional attitude descriptions. For a much more detailed account of mood indicators in an RT framework, see Sperber and Wilson (1986), Wilson and Sperber (1988a), Clark (1991) and Jary (2002), for example.

3.6.4 Illocutionary and attitudinal adverbials

(74) *Frankly*, Peter is a bore.
(75) *Sadly*, I can't stand Peter.
(76) *Fortunately*, Mary was able to repair the car.
(77) *Regrettably*, Mary was unable to repair the car.

This type of 'non-truth-conditional' device has been dealt with in an RT framework in great detail by Ifantidou-Trouki (1993) and Ifantidou (1994, 2001). Therefore, I won't do more here than sum up her account. According to Ifantidou (1994, pp. 148–52), illocutionary and attitudinal adverbials, such as those in (74)–(77), encode concepts. The most convincing piece of evidence for this is the fact that they all have synonymous 'truth-conditional' counterparts that are clearly conceptual. For instance, in (78)–(81), *frankly*, *sadly*, *fortunately* and *regrettably* all contribute concepts to the proposition expressed by the utterance.

(78) John spoke frankly.
(79) Mary smiled sadly.
(80) Things turned out quite fortunately for her.
(81) She left regrettably soon after she arrived.

There are only two ways of accounting for the ability of these adverbials to appear either in the proposition expressed or a higher-level explicature of the utterance: either one claims that they are ambiguous or one assumes that the discourse adverbials and the corresponding manner adverbials are one and the same lexical item, in which case the simplest hypothesis is that they encode conceptual information. The first possibility doesn't seem very plausible because it would result in a systematic ambiguity, not just for the adverbials mentioned above, but for countless others as well. Furthermore, there is extra evidence in favour of the view that the illocutionary and attitudinal adverbials in (74)–(77) encode concepts. The most compelling argument for this is that all these

adverbials are compositional, that is, they combine with other conceptual expressions to form larger adverbials. Consider (82)–(85), for example:

(82) Frankly speaking, Peter is a bore.
(83) Very sadly and regrettably, I can't stand Peter.
(84) Fortunately for Peter, Mary was able to repair the car.
(85) Most regrettably, Mary was unable to repair the car.

Interestingly (and possibly somewhat worryingly), these tests don't show such clear results for all illocutionary and attitudinal adverbials. For instance, while *actually* in (86) seems to have a synonymous truth-conditional counterpart, as in (87), it's not so clear that it felicitously combines with any other elements to form more complex adverbials. Some attempts at doing this are shown in (88)–(91):

(86) Actually, I don't like Peter.
(87) Mary didn't just pretend, she actually ate the bug.
(88) *Very actually, I don't like Peter.
(89) *Sadly but actually, I don't like Peter.
(90) *Surprisingly and actually, I don't like Peter.
(91) Actually (and maybe surprisingly), I don't like Peter.

A possible explanation for this rather mixed behaviour of *actually* is that the expression in its use as a discourse adverbial is in the process of being 'proceduralised'. This is based on the idea explored by Traugott and Dasher (2001, p. 153) that many expressions that now have clearly procedural meaning historically started life as conceptual expressions, became routinely associated with certain inferential processes and finally lost their conceptual nature completely. It is at least conceivable that *actually* on its discourse use has become associated with a certain inferential process (I'm leaving open what that process could be) and is gradually becoming dissociated from its conceptual counterpart without having completely lost its conceptual nature as yet.

3.6.5 Illocutionary and attitudinal particles and interjections

(92) *Oh*, you're such a bore.
(93) Peter is an interesting man, *huh*!
(94) You like Peter, *eh*?
(95) *Alas*, I can't stand Peter.

There is a fair amount of doubt as to whether these items encode any linguistic meaning at all. Wharton (2003a) analyses at least some of them in terms of naturally (rather than linguistically) encoded procedural meaning. He uses the notion of natural codes to capture how we interpret natural expressions of emotions, such as smiles and frowns. Ultimately, it is an empirical question whether these particles and interjections pattern with natural codes or whether they do have linguistic meaning.[24] Whatever the answer to that question will turn out to be, it seems clear that any meaning illocutionary and attitudinal particles and interjections encode must be procedural rather than conceptual.

First, considering the accessibility-to-consciousness argument, it's exceedingly difficult to 'bring to consciousness' the meaning of *oh, huh, eh* and *alas* (though it might be somewhat easier in the case of *alas* – at least some crossword puzzle compilers seem to think that *alas* means *unfortunately*). Both the truth evaluability and the compositionality arguments provide very convincing evidence in favour of these 'particles' encoding procedural rather than conceptual meaning. For instance, (assuming that *oh* conveys surprise) (96) shows clearly that its meaning is not truth evaluable, B's utterance here is unacceptable:

(96) *A* Oh, it's five o'clock.
B *That's not true, you're not surprised that it's five o'clock at all.

(97) and (98) show that, while, as expected, *I'm surprised* combines happily with other expressions to form a larger conceptual representation, *oh* is not compositional:

(97) I'm really surprised it's five o'clock.
(98) *Really oh, it's five o'clock.

This leaves the question as to whether these particles contribute to the explicit or implicit side of communication. Looking at an example like A's utterance in (96) it seems reasonable to assume that *oh* constrains higher-level explicatures; it seems at least plausible that the contribution *oh* makes to the overall interpretation of this utterance is that it leads the hearer to the construction of a higher-level explicature expressing an attitude to the proposition expressed, as in (99):

(99) The speaker is surprised that it's five o'clock.

However, *oh* can perfectly happily occur as an utterance in its own right, as for example in (100):

(100) Mary discovers that someone has sent her a letter in a heart-shaped envelope and says: Oh!

In this case, Mary's utterance does not encode any conceptual meaning at all, which means that it doesn't have a logical form, which in turn means that it can't have any explicatures. Here, if anything, *oh* must be constraining the implicatures of Mary's utterance (because the only assumptions it communicates are implicatures). In sum, if items like *oh*, *huh*, *eh* and *alas* encode any linguistic meaning at all, it's very likely to be procedural meaning that can constrain either the (higher-level) explicatures or the implicatures of an utterance.

3.6.6 'Presuppositional' expressions

This is a 'class' of 'non-truth-conditional' devices that has been given little attention in RT so far. Since this is a book primarily about concessive constructions I will not be able to do more than make a few very vague suggestions as to how they might be accounted for in the framework of RT.

(101) Some dog ate my steak.
(102) Some *cur* ate my steak.

(103) You'll be *spared* a lecture.
(104) You'll be *deprived* of a lecture.

(105) Peter ate my steak.
(106) That *bastard* Peter ate my steak.

(107) Je *t*'aime.
(108) Je *vous* aime.
(109) Ich liebe *dich*.
(110) Ich liebe *sie*.
'I love you.'

(111) Peter repaired the car.
(112) Peter *managed* to repair the car.

(113) John is here.
(114) John is here *already*.

(115) Jane isn't here.
(116) Jane isn't here *yet*.

There seem to be at least three distinct types of phenomena listed in this category: (a) *dog/cur, tu/vous, spare/deprive*; (b) *that bastard, manage*; and (c) *yet, already*. The elements in group (a) all clearly contribute a concept to the proposition expressed by the utterance: *dog* and *cur* by encoding it, *tu* and *vous* most likely by instructing the hearer to supply such a concept along the lines of other indexicals. Moreover, it seems at least possible that each pair of expressions contributes the same concept (in the same context). The differences between the members of each pair seem to stem from conventions of use rather than anything they linguistically encode. At least in the case of the *tu/vous* (or *du/sie*) distinction, the conventions governing when each expression should be used are strongly reminiscent of such social conventions as how one should greet people of different social standing (say by bowing to them, shaking their hand or giving them a peck on the cheek): the knowledge of a German speaker that she should use *du* to address children, friends and relatives and *sie* to address anybody else seems very similar to the kind of knowledge that tells us whom we can greet with a peck on the cheek and whom we'd better shake by the hand or greet with a nod. In other words, unlike Levinson (1983, pp. 128–30), who proposes that the difference between *tu* and *vous* is a matter of conventional implicature, I doubt that the difference is one of linguistic meaning proper at all.

That bastard and *manage* are also both likely to encode concepts, but utterances containing these expressions seem to express more than one proposition. *That bastard* (and other expressions like it) has a strongly parenthetical feel about it, making it highly likely that utterances such as (106) actually express two propositions: one the same as that expressed by (105) and the other something like (117):

(117) PETER$_x$ IS A BASTARD.

It is less obvious that examples containing *manage*, such as (112), also express two propositions, since there is nothing parenthetical about these cases. It is, however, still conceivable that (112) is best analysed as expressing the propositions in (118) and (119):

(118) PETER$_x$ REPAIRED CAR$_y$
(119) REPAIRING CAR$_y$ WAS DIFFICULT FOR PETER$_x$

If this is the case, these examples follow a pattern similar to the examples of Bach (1999) and Neale (1999) discussed in Section 3.5.

Finally, the elements in (c) are much more likely to encode procedural information that constrains the implicit side of communication. For instance, *already* might be analysed as indicating that the utterance should be processed in a context which contains the negation of the proposition expressed by the utterance. In the case of (114), this would mean that the utterance should be processed in a context that contains the assumption that John isn't here (or that someone believes that he isn't here). *Yet* may then be analysed as the negative polarity counterpart of *already*. In other words, it may also indicate that the utterance is to be processed in a context that contains the negation of the proposition expressed – it's just that the proposition expressed in this case is negative and its negation positive. Thus, *yet* in (116) would indicate that the utterance should be processed in a context that contains the assumption that Jane will be here (or that someone believes that she is here).

3.6.7 Focus particles

These expressions seem to be prime candidates for encoding procedural rather than conceptual information: it's hard to bring their meaning to consciousness and they don't seem to be truth evaluable, as demonstrated by (123)–(125):

(120) *Even* John came to the party.
(121) John came to the party *too*.
(122) John *also* came to the party.

(123) *A* Even John came to the party.
B ?That's not true. John was quite likely to come to the party.
(124) *A* John came to the party too.
B ?That's not true. John was the only one who came to the party.
(125) *A* John also came to the party.
B ?That's not true. Coming to the party was the only thing John did.

When it comes to compositionality, things are not quite so straightforward. It seems that at least *even* can combine in interesting ways with certain other expressions, such as *if* and *not* in (126) and (127):

(126) Even if you write 2000 words every day, you won't finish your book by the end of July.
(127) Not even Bill came to the party.

The case of *even*'s interaction with *if* will be looked at in some detail in Chapter 6.

At a first pass, it looks as if all of these particles place constraints on context. One way or another, they all seem to indicate that the utterance containing them should be processed in a context that contains a range of related propositions. Focus plays an important part in determining what these propositions are, that is, they are propositions that are identical to the proposition expressed by the utterance in everything but the constituent the focus falls on.[25] For instance, assuming the focus in an utterance of (120) falls on *John*, that utterance is to be processed in the context of propositions like those in (128)–(131):

(128) Mary came to the party.
(129) Jim came to the party.
(130) Joan came to the party.
(131) Janet came to the party.

Tentatively, *also* and *too* seem to indicate that at least one of these related propositions is true, while *even* seems to indicate the same, as well as that these related propositions come on a scale of probability and that the proposition expressed is the least likely of them all. A full relevance-theoretic account of the meaning of *even* will be given in Chapter 6.

It seems that these focus particles affect the implicit side of communication. For instance, they don't seem to affect the propositions expressed (or the higher-level explicatures) of the utterances in (120)–(122). However, there are examples where this is less clear:

(132) Mary was annoyed that John even ate the cake.
(133) Mary was annoyed that John ate the cake too.
(134) Mary was annoyed that John also ate the cake.[26]

In (132)–(134), the fact that the cake wasn't all that John ate seems to be a crucial component of what the speaker is saying Mary is annoyed about.

Since discourse connectives are the topic of the next three chapters, I am not discussing them here.

3.7 Conclusion

In this chapter I have introduced the cognitive pragmatic framework of Relevance Theory. I have indicated how this framework makes it

possible to account for all linguistic meaning using two basic distinctions: the semantic distinction between conceptual and procedural encoding and the pragmatic distinction between explicit and implicit communication. This chapter has also shown how it is possible to account for linguistic meaning and verbal communication without recourse to the notion of truth conditions, while still capturing the intuitions that linguistic utterances are about things, and that at least some of them can be true or false. I therefore conclude that RT provides a viable alternative to the fundamentally truth-conditional theories of linguistic meaning discussed in Chapter 2.

In the next three chapters I will concentrate on semantic accounts of 'concessives', such as *but* and *although*, and 'concessive conditionals', typically expressed by *even if*. In each case, I will give an overview of some of the accounts proposed in the literature before offering my own relevance-theoretic analysis.

4

Denial, Contrast and Correction: The Meaning of *but*

4.1 Concessivity and its expression

This chapter and the next two are devoted to the topic of 'concessives'. 'Concessive' expressions make a particularly good testing ground for 'non-truth-conditional' theories of linguistic meaning because they are treated in 'non-truth-conditional' terms almost uniformly across the literature.[1]

Clearly, the first question to ask is what is meant by 'concessives' or 'concessivity' in language. Quirk and others (1972, p. 674) give the following characterisation:

> Concessive conjuncts signal the unexpected, surprising nature of what is being said in view of what was said before that.
>
> (Quirk et al., 1972, p. 674)

This is demonstrated by an utterance of (1), where the information that Peter went out could be seen as surprising in the light of the information that it was raining:

(1) It was raining but Peter went out.

As (2) and (3) show, the same kind of relation between two clauses can also be expressed using *although*. Here, however, the speaker is free to present the 'surprising' information first, as in (3):

(2) Although it was raining, Peter went out.
(3) Peter went out although it was raining.[2]

Finally, (4) and (5) illustrate that, at least in certain circumstances, an *even if* utterance can convey something very similar to concession:

(4) Peter will go out, even if it's raining.
(5) Even if it's raining, Peter will go out.

In fact, there is a whole host of linguistic constructions which allow a speaker to convey this kind of meaning. Some of these are given in (6)–(9):

(6) It was raining. *Nevertheless*, Peter went out.
(7) It was raining. *Still*, Peter went out.
(8) It was raining, *yet* Peter went out.
(9) *Despite the fact that* it was raining, Peter went out.

As mentioned above, there is widespread consensus that the meanings of 'concessive' expressions cannot be given in terms of the contribution they make to the truth conditions of their host utterances. Given a particular context, all the above utterances (with the possible exception of (4) and (5)), will have the same truth conditions, or will explicitly communicate the same basic proposition, namely something along the lines of (10):

(10) IT WAS RAINING AT TIME T AND PETER$_X$ WENT OUT AT T

These examples also show that 'concession' can be expressed in many different ways. It is not my aim in these chapters to give a comprehensive overview of the myriad different linguistic devices that can be used in English to express 'concession'. Rather, I will concentrate on *but* and *although*, which are widely accepted to be the two most frequent 'contrastive' conjunctions in English (see for example Grote, Lenke and Stede, 1997; Oversteegen, 1997; Rudolph, 1996; Winter and Rimon, 1994; and König, 1986), and on *even if*, which König (1986, p. 234) sees as the most typical form of 'concessive (or irrelevance) conditional'. My reasons for doing this are, first, that defining a relation of concession is difficult[3] and, second, even if it were possible to define such a relation, it is very unlikely that it would provide a useful tool in characterising the linguistic meanings of particular expressions. This is because there is no one-to-one correspondence between linguistic expressions and interpretations:[4] many expressions can give rise to several interpretations and, as seen above, many different constructions and lexical items

may be used to express the same relation. Therefore, accounting for the semantics of individual expression will be more fruitful than trying to give a taxonomy of all 'concessive' linguistic expressions. Categories, such as 'concessives', are at best definable in a secondary way, as generalisations from the meanings of a group of linguistic expressions.

This chapter is devoted to the analysis of *but*, on which there is a vast literature. Chapter 5 is concerned with *although*, on which much less has been written. Generally, the assumption seems to be that *although* covers a subset of interpretations that *but* can be given and, therefore, not much else needs to be said about *although*. I will argue that this assumption misses some important differences and that *although* deserves its own analysis. Finally, Chapter 6 deals with *even if* and, of necessity, much of it is concerned with the meaning of *even*.

The ultimate aim of this chapter is to defend a relevance-theoretic account of *but*. However, since this account does not exist in a vacuum, I will also discuss a number of alternative (and generally older) analyses of this connective. One difficulty with *but* is that it can give rise to a variety of interpretations and not everyone agrees as to the precise range of uses of *but*.[5] I will thus start by looking at the range of interpretations *but* can be given and defend the view that there are two basic uses of *but* to which all others can be assimilated. This raises the question of whether there is one *but* or two, that is, whether the English connective is ambiguous, polysemous or monosemous. The literature can be divided into analyses that assume an ambiguity and those that don't. Representatives of both camps will be discussed. However, I will ultimately argue that there is no good case for an ambiguity and that it is, therefore, worth attempting to find an account of *but* on which a single linguistic meaning gives rise to the full range of interpretations. It is such an account, in terms of a procedural constraint on inference, that I will propose and defend in the final part of this chapter.

4.2 Interpretations of *P but Q*

There is widespread agreement in the literature on *but* that there are a number of ways in which *but*-conjunctions of the form in (11) can be interpreted:

(11) *P* but *Q*[6]

However, as hinted at above, there are significant differences among theorists when it comes to listing and describing these different

interpretations. I will therefore start with the least controversial (or most frequently recognised) interpretation. This is the interpretation that is generally known as 'denial of expectation'. Possibly the most famous example in which *but* receives a 'denial of expectation' interpretation is that in (12):

(12) John is a Republican but he is honest. (G. Lakoff, 1971, p. 67)

No doubt this example has proved so popular because of its mildly humorous effect, which stems from the fact that it seems to suggest that Republicans are not normally honest. According to R. Lakoff (1971), this example and other 'denial of expectation' uses of *but* involve an implication relation between the two conjuncts. The idea is that the first conjunct (*John is a Republican*) implies an assumption that is then contradicted by the second conjunct (*He is honest*). In other words, on the basis of the first conjunct one might be led to expect something that is then denied – hence the name 'denial of expectation'. In the case of G. Lakoff's example (12), it is highly unlikely that the average hearer actually would come to expect that John isn't honest on the basis of the assertion that John is a Republican. Rather, it is likely that the hearer will only derive this implication once he's processed the whole utterance and only because of the speaker's use of *but* – hence the slightly humorous effect. *But* indicates that *he is honest* contradicts an assumption implied by *John is a Republican*.

(1) provides a rather more ordinary example of a denial of expectation use of *but*:

(1) It was raining but Peter went out.

This lacks the humour of (12) because the implication from *It was raining* to *Peter didn't go out* is a fairly everyday one and, therefore, the average hearer might well expect that Peter didn't go out once he was aware that it was raining.

In general terms, one might say that *P but Q* on a denial of expectation interpretation gives rise to (or makes use of) an assumption that *P* implies ¬*Q*. There is general agreement in the literature on *but* that something along the lines just described does, indeed, go on in the interpretation of *but*-conjunctions like (1) and (12). There is some disagreement as to whether what is denied has to be something as strong as an expectation. Indeed, I will suggest in the final part of this chapter

that 'expectation' is far too strong a term. Nevertheless, the general point stands: on a very standard interpretation, *but* seems to indicate that the clause it introduces denies an assumption that might have been derived on the basis of the previous clause. That this is a matter of the linguistically encoded meaning of *but*, rather than the context alone, can be illustrated by comparing an utterance containing *but* with one that is different only in that it contains *and*. For instance, (14) necessarily receives an interpretation on which the speaker's reading the book is unexpected in the light of her mother's recommendation, while (13) may be interpreted as communicating that the speaker's reading the book follows from her mother's recommending it:

(13) My mother recommended this book and I read it.
(14) My mother recommended this book but I read it.

Some theorists, such as Anscombre and Ducrot (1977), Abraham (1979), König (1985) and Blakemore (1989), also distinguish a slightly different variety of the denial of expectation use of *but*. Consider an utterance of (15):

(15) It's raining but I need some fresh air.

Clearly, this can't be understood as conveying that *P* (*it's raining*) implies ¬*Q* (*I don't need any fresh air*). Instead, there seems to be an indirect relation between *P* and *Q*. A plausible scenario in which (15) could be uttered is one where the speaker and the hearer are debating whether to go for a walk or not. In such a scenario, *P* (*it's raining*) could easily be understood as implying that the speaker didn't want to go for a walk, while *Q* (*I need some fresh air*) would imply just the opposite. König (1985, pp. 5–6) refers to this kind of interpretation as 'adversative'. In more formal terms, following Anscombre and Ducrot (1977), this can be captured as (16):

(16) (a) $P \rightarrow \neg R$
(b) $Q \rightarrow R$
(c) *Q* carries more weight

Applying this to (15), *P* (=*It's raining*) implies ¬*R* (=*I don't want to go for a walk*), *Q* (=*I need some fresh air*) implies *R* (=*I want to go for a walk*) and, overall, the speaker seems to implicate that, on balance, she wants to go

for a walk, that is *Q* (*I need some fresh air*) carries more weight than *P* (*It's raining*).

Apart from capturing the most likely interpretation of (15), (16) has the advantage of applying to examples like (1) and (12) as well. Such examples fit the schema in (16) if one assumes that $R = Q$. This means that the schema would read something like (17):

(17) (a) $P \rightarrow \neg Q$
(b) $Q \rightarrow Q$
(c) *Q* carries more weight

In other words, *P* (say, *It was raining*) implies ¬*Q* (say, *Peter didn't go out*), *Q* (say, *Peter went out*) trivially implies *Q*, *Q* carries more weight than *P* and, therefore, *P but Q* implies *Q* (also trivially, because *Q* is entailed). Thus, cases in which the first conjunct *P* implies the negation of the second conjunct *Q* are simply a special case of the general denial of the expectation use of *but*, according to which the two conjuncts support opposite conclusions (or have contradicting implications), with the second outweighing the first.

Some theorists maintain that there is a use of *but* on which the relation between the two conjuncts is not one of denial of expectation or implication but one of simple contrast. For instance, it is not immediately obvious that an interpretation of (18) has to involve a suggestion that either the first conjunct implies the negation of the second or that the two conjuncts have contradicting implications, although such interpretations can, of course, be imagined:

(18) John is tall but Bill is short. (R. Lakoff, 1971, p. 133)

It seems at least possible that (18) could be uttered simply to draw attention to the difference in height between John and Bill. This is, in fact, how R. Lakoff (1971) interprets it. According to her, there is no implicational relationship between the two conjuncts in this example or in others like it. Instead, there is a contrast between them due to the presence of antonymous lexical items in the two clauses (*tall* vs. *short*). For this reason, R. Lakoff (1971, p. 133) dubs this 'semantic opposition' *but*. However, as she herself concedes, the lexical items involved don't always have to be strictly antonymous (assuming there is an adequate definition of that notion to start with).

Blakemore (1987, p. 132) considers a whole range of examples which don't involve any sort of antonymy, and which don't, on the face of it, look like cases of denial of expectation either. (19)–(22) are adaptations of Blakemore's examples:

(19) Susan is tall but Anne is of average height.
(20) The onions are fried but the cabbage is steamed.
(21) Mary likes skiing but Anne plays chess.
(22) His father owns a Mini but mine has a Porsche.

Because the 'opposition' in these cases is not of a semantic nature, Blakemore prefers to call them 'contrast' uses of *but*.[7] For instance, in (20) *fried* and *steamed* are clearly not antonyms. At the same time, it's not very likely that a speaker uttering this sentence would want to implicate that the onions being fried somehow implies that the cabbage isn't steamed.[8] However, it is quite easy to access an interpretation on which there is an indirect incompatibility between the two clauses, that *the onions are fried* has an implication which is contradicted by an implication of *the cabbage is steamed*. For instance, (20) could be uttered by Joan to the health-conscious Susan who is worried about the fat content of the meal. In such a context, *the onions are fried* might well imply that the meal is going to be high in fat, while *the cabbage is steamed* would imply that the fat content of the meal isn't going to be very high. Similar interpretations can be imagined for the other examples. In other words, all of these examples can be given a denial of expectation reading.

In fact, Abraham (1979, pp. 106–7), Foolen (1991, pp. 84–5) and Winter and Rimon (1994, pp. 373–4) all argue that R. Lakoff's semantic opposition and Blakemore's (1989) contrast uses of *but* can be reduced to denial uses. For instance, Foolen (1991, p. 85) maintains that semantic opposition or contrast readings are the artificial result of looking at examples out of context and that, if one were to look at examples like (18) in a natural context, one would find that they actually involve the denial of an expectation. (23) gives a scenario along the lines proposed by Foolen:

(23) *A* John and Bill are both quite tall, aren't they?
B Actually, John is tall but Bill is short.

When uttered by B in this scenario, it does indeed seem that (23) is interpreted as involving an indirect denial of expectation: *P* (*John is tall*) is an argument for ¬*R* (*A is right – John and Bill are both quite tall*), *Q* is an

argument for *R* (*A is wrong – John and Bill aren't both quite tall*) and *Q* is the stronger argument (therefore, A is wrong – John and Bill aren't both quite tall). I will return to the question as to whether semantic opposition or contrast *but* can really be reduced to denial of expectation *but* in Section 4.7.2.

While it is at least conceivable that 'semantic opposition' or 'contrast' *but* may be reduced to 'denial of expectation' *but*, there is another use of *but* which doesn't seem amenable to such treatment. This use of *but* has been distinguished by many theorists (most notably Anscombre and Ducrot, 1977) on the following cross-linguistic grounds. As used in all the examples above, *but* translates into German as *aber* and into Spanish as *pero*. However, in certain circumstances, *but* must be translated as *sondern* in German and *sino* in Spanish. (24) gives an example of this with the German translation in (25):

(24) That's not my sister but my mother.
(25) Das ist nicht meine Schwester, sondern meine Mutter.

It seems that there is neither direct nor indirect denial involved in the interpretation of an utterance of (24): it is not the case that the first conjunct (*that's not my sister*) implies the negation of the second (*that's not my mother*), nor is it the case that the first conjunct implies something that is denied by an implication of the second conjunct. In English, such a denial reading is possible only if there is no ellipsis:

(26) That's not my sister but it is my mother.
(27) Das ist nicht meine Schwester, aber (es ist) meine Mutter.

Thus, an utterance of (26) would have to be interpreted as a denial of expectation. For instance, the first conjunct (*that's not my sister*) implies that the woman in question isn't related to the speaker, the second conjunct (*it is my mother*) implies that she is related to the speaker, and the whole utterance clearly (analytically) implies that the woman in question is related to the speaker. Note, however, that such a reading can only be achieved in German if *but* is translated as *aber*, as in (27).

If the utterance is as in (24), and so *but* is translated into German as *sondern*, then the interpretation has to be something along the following lines. In the first clause (*that isn't my sister*) the speaker is negating an assumption that her hearer has either voiced explicitly or that the speaker is attributing to the hearer, namely that the woman in question is the speaker's sister. The function of the second clause (*it is my mother*)

is one of correction: the second clause provides a correct replacement for the 'offending' part of the negated assumption, which is why I've dubbed this use of *but* 'correction'. (28) gives a natural scenario for an utterance of (24):

(28) *A* You look a lot like your sister.
B That's not my sister but my mother.

Because correction uses of *but* seem to occur most naturally in circumstances in which the hearer has either communicated the assumption that's being negated in the first clause or the negated assumption can at least be attributed to the hearer, this use of *but* has been associated with the phenomenon of metalinguistic negation (see for example Anscombre and Ducrot, 1977, pp. 26–7; Horn, 1989, p. 407). This will be discussed in more detail below.

Apart from a denial of expectation *but* (corresponding to German *aber* and Spanish *pero*) and correction *but* (corresponding to German *sondern* and Spanish *sino*), Abraham (1979, pp. 112–15) further distinguishes a use of *but* on which it can be translated into German as *dafür* (literally 'for that'). Grote, Lenke and Stede (1997, p. 97) also discuss this kind of *but*, using the notion of substitution. (29) and (31) can both be translated into German using *dafür*, as in (30) and (32):

(29) He is a bit short of breath but he has long legs.
(30) Er ist etwas kurzatmig, dafür hat er lange Beine.
(31) There was no chicken, but I got some fish.
(32) Es gab kein Huhn, dafür habe ich Fisch gekauft.

According to Abraham, the relation between the two clauses is the following. The first clause is usually not followed by the second, so there is a denial of expectation. However, in addition, the predicate of the second clause is signalled as preferred to that of the first, and the second clause is 'dominant'; in Abraham's (1979, p. 13) words, the second clause 'receives the stronger accent of the two events'. In the case of (29), these conditions do indeed seem to be fulfilled (although the denial or incompatibility between the two clauses is more likely to be indirect than direct): the first clause (*he is a bit short of breath*) could, for instance, imply *he isn't a good runner*, while the second clause (*he has long legs*) would imply *he is a good runner*. The property attributed to 'him' in the second clause (that of having long legs), is clearly preferred to that attributed in the first clause (that of being a bit short of breath). Finally,

the second clause does indeed seem to be 'dominant' or carry more weight – the overall conclusion would be that 'he' is likely to be a reasonably good runner. Abraham (1979, p. 113) labels these kinds of examples 'compensatory' or 'negatively concessive'. I am not listing this use separately because these 'compensation' examples can clearly be reduced to (indirect) denial of expectation.

I'll end this Section by looking at two types of occurrence of *but* that don't so much involve different interpretations as different, possibly 'non-standard', uses of *but*. Bell (1998, p. 527) contends that there is a use of *but* that can't be accounted for in terms of denial of expectation (and it clearly isn't a correction use either). He calls this 'discourse' or 'sequential' *but* and gives the example in (33):

(33) *A* We had a very nice lunch. I had an excellent lobster.
B But did you get to ask him about the money?

According to Bell, *but* in B's utterance signals a return to the main topic of discourse. In general, Bell (1998, p. 530) sees the *but* clause in its 'discourse' use as cancelling 'the topic domain' of what went before. This use of *but* seems to be quite widespread in newspapers, where *but* is often used to introduce a new paragraph. (34), taken from an article dealing with illegally kept DNA samples, gives an example of this:

(34) Disclosure of the degree to which police are failing to use new forensic technology is embarrassing to the police at a time when the government is making a further £36 m available to develop the national DNA database.

But the most significant aspect revealed by the inspector of constabulary report, Under the Microscope, is its confirmation that 'many thousands of such samples are being held outside the rules'.

(The *Guardian*, 1 August 2000)

Most of the accounts of the meaning of *but* considered in this chapter do not deal with this use of *but*, which is, nevertheless, very standard. This is unfortunate, because it's not obvious how the notions of denial of expectation, contrast, correction, or even compensation could shed light on this particular use of *but*. I will consider a possible solution to this problem in my discussion of the relevance-theoretic approach to *but*.

The final type of occurrence of *but* I'd like to consider comprises utterance-initial and discourse-initial uses of *but*. Again, it's not clear

that these uses involve radically different interpretations of the connective, but they are quite common and don't fit straightforwardly into most accounts of *but*. In utterance-initial uses, *but* starts a rejoinder to a previous utterance, as in (35) and (36):

(35) *A* John's in Paris at the moment.
B But I've just seen him in Oxford Street.
(36) *A* It's time for bed now.
B But you said I could watch the end of Brookside.

(37) [Peter puts some salmon on Mary's plate]
Mary But I'm allergic to fish.
(Rouchota, 1998b, p. 25)

(37) illustrates that *but* can also appear at the beginning of an utterance, where no previous utterance has been made. In cases like (35)–(37), *but* seems to introduce protests or objections.

I won't discuss this type of example at great length here, but since it seems clear that there is nothing strange or marked about these uses of *but*, any adequate account of the meaning of *but* should at least acknowledge their existence and show that it can accommodate them.

We now have a fairly extensive selection of uses of *but* against which to measure the descriptive success of any theory of the connective's meaning or meanings. Given the variety of interpretations *but* can give rise to, the most pressing question is how many meanings it has. There are, broadly, two camps: the ambiguity camp and the monosemy or possible polysemy camp. In the next Section, I will discuss Anscombre and Ducrot's influential ambiguity account and take it as representative of a variety of other ambiguity accounts. Note, however, that some other ambiguity accounts, such as those of R. Lakoff (1971), G. Lakoff (1971) and Blakemore (1989), take *but* to be ambiguous between denial of expectation and contrast, while Anscombre and Ducrot and Horn (1989) take it to be ambiguous between denial of expectation and correction.

4.3 An ambiguity account

4.3.1 Anscombre and Ducrot's two *mais*

The treatment of the meaning of *but* (or rather its French equivalent, *mais*) given by Anscombre and Ducrot (1977) is probably the most

influential account in the literature, certainly as far as denial of expectation *but* is concerned. As mentioned above, Anscombre and Ducrot (henceforth A & D) draw a distinction between denial of expectation *but* and correction *but* (though they use different labels). The basis for this distinction lies in the cross-linguistic fact that both German and Spanish have (at least) two non-synonymous expressions to translate *but* or *mais*. Denial of expectation *but* is translated into German as *aber* and into Spanish as *pero*. Correction *but*, on the other hand, is translated as *sondern* in German and *sino* in Spanish. For this reason, A & D term denial *but* '$mais_{PA}$' and correction *but* '$mais_{SN}$'. I'll start by looking at A & D's treatment of correction *but*.

4.3.2 $Mais_{SN}$

According to A & D (1977, pp. 24–5), for correction *but* to be able to connect two sentences *P* and *Q*, the conditions in (38) have to obtain:

(38) **Correction ($mais_{SN}$)**

(a) *P* has the form of *not P′*
(b) The same speaker is uttering all of *P but Q*[9]
(c) The speaker presents *Q* as her reason for rejecting *P′*
(d) *Q* has to refute *P′* directly, i.e., *Q* and *P′* have to characterise the same kind of fact (in ways which the speaker deems incompatible with each other). *Q* has to be capable of replacing *P′*.

Clearly, these conditions are met in (24), the correction example from above:

(24) That's not my sister but my mother.

The first conjunct does, indeed, contain an overt, unincorporated negation (*not*), both conjuncts are uttered by the same speaker, the second (*she is my mother*) is presented as the reason for rejecting the positive counterpart of the first (*she is my sister*) and *P′* (*she is my sister*) and *Q* (*she is my mother*) do indeed describe the same kind of fact in an incompatible way (the woman in question can't simultaneously be the speaker's sister and her mother). However, there are a number of problematic aspects of the conditions given by A & D.

First, the notion of 'the same kind of fact' is vague and would benefit from further explication. For instance, somebody being the speaker's sister and somebody being her mother are intuitively the same kind of facts, but it is doubtful whether the same can be said for attending

peace talks and tending pea stalks, as should be the case, since an utterance of (39) is clearly acceptable (and equally clearly a correction use of *but*). This point will probably hold for virtually all corrections of linguistic form.

(39) Peter didn't attend the peace talks but tend the pea stalks.

(40), a similar example in German, must contain *sondern* for it to be interpreted parallel to (39). (41), the same example using *aber* can only be interpreted as a denial of expectation (a suitable context for which is not easy to find):

(40) Fritz hat nicht Hilfe gebraucht, sondern die Hälfte geraucht.
'Fritz did not need help but smoke half.'
(41) Fritz hat nicht Hilfe gebraucht, aber die Hälfte geraucht.

(39) is most likely to be uttered to correct someone who has misheard an utterance of 'Peter tended the pea stalks' as 'Peter attended the peace talks' and maybe asked 'Which peace talks did Peter attend?'. In such a scenario *Peter attended the peace talks* and *Peter tended the pea stalks* don't **describe** the same kind of **fact** but they **represent** the same **utterance**. This seems to indicate that, rather than characterising the same kinds of fact, an utterance of *P′* and an utterance of *Q* should perform the same communicative function.

A further problem is also connected with condition (d): the requirement that the speaker should deem *P′* and *Q* incompatible is open to interpretation. It is reasonably clear what this incompatibility is in the case of (24), because the likelihood of one and the same person being the speaker's sister and her mother is small to say the least. However, it is much less clear how the facts described by *P′* (*we saw the hippopotamuses*) and *Q* (*we saw the hippopotami*) in (42) can be incompatible, since they clearly describe exactly the same fact.

(42) We didn't see the hippopotamuses but the hippopotami.

Again, it seems that the incompatibility isn't between **facts** but between **utterances**. This assessment is supported by the fact that in both (39) and (42) the negation in the first clause isn't descriptive but metalinguistic, that is, the speaker is not so much concentrating on the propositional content of the utterance as objecting to it on other grounds.

In fact, (39) does not fit the typical characterisation of metalinguistic negation entirely, as the propositional content of *P′* is at least part of what the speaker is objecting to.[10]

The fact that these metalinguistic cases don't seem to fit A & D's characterisation of correction *but* is surprising given that they (1977, pp. 26–7) state that the negation in *P* must have what they call 'polemic' character. In this context, they intend this not in its strict sense, in which it can only be used to object to an actual preceding utterance, but in a looser sense, that is, one in which it can also be used to object to a potential utterance. Clearly, A & D's 'polemic' negation is very close indeed to Horn's (1985, 1989) metalinguistic negation. In fact, by saying that metalinguistic negation:

> occur[s] naturally only as responses to utterances by other speakers earlier in the same discourse contexts, or as mid-course corrections after earlier utterance by the same speakers

Horn (1989, p. 375) makes it clear that his metalinguistic negation corresponds to A & D's strictly interpreted polemic negation. It seems, then, that Carston's (1996b) definition of metalinguistic negation is much closer to A & D's polemic negation interpreted more loosely (as it has to be in order to apply to all *sondern*-type uses of *but*). She argues that:

> The correct generalization about the metalinguistic cases is that the material in the scope of the negation operator, or some of it at least, is echoically used, in the sense of Sperber and Wilson (1986), Wilson and Sperber (1988[b], 1992).
>
> (Carston, 1996b, p. 320)

Crucially, echoic use does not necessarily involve an actual thought or utterance. Instead:

> the thought being echoed may not have been expressed in an utterance; it may not be attributable to any specific person, but merely to a type of person, or people in general; it may be merely a cultural aspiration or norm.
>
> (Wilson and Sperber, 1992, p. 60)

In other words, Carston (1996b) gives a full account of metalinguistic negation that tallies with A & D's intuitions on the type of negation that is involved in the use of *but* on which it corresponds to *sondern* (or *sino*).

In spite of the problems discussed above, A & D's account of *sondern* and correction *but* is essentially convincing: neither *sondern* nor *but* on its 'correction' interpretation can combine with incorporated negation and the second clause is, indeed, understood as replacing the first (or a particular aspect of it) rather than denying an expectation created by it. Furthermore, it also seems absolutely right that *P but Q* on a correction interpretation must be uttered by the same speaker, or, if it isn't, as in (43), it must be understood as the second speaker continuing the first speaker's utterance rather than making her own new utterance.

(43) *A* Peter isn't a hero …
B But a complete and utter prat.

In the final section of this chapter, I will try to show how a general relevance-theoretic constraint can capture A & D's intuitions concerning the correction use of *but*, while avoiding the vagueness endemic to concepts such as 'the same kind of fact'.

4.3.3 *Mais*$_{PA}$

The second kind of *but* (or *mais*) A & D recognise is equivalent to German *aber* and Spanish *pero* – hence *mais*$_{PA}$. As already noted, they (1977, p. 28) claim that the rules in (44) govern the appropriate use of this kind of *but*:

(44) **Denial of expectation (*mais*$_{PA}$)**

(a) *P* is an argument for ¬*R*.
(b) *Q* is an argument for *R*.
(c) *Q* is a stronger argument for *R* than *P* is for ¬*R*.

Leaving aside any reservations regarding the notions of 'is an argument for' and 'is a stronger argument', which are discussed in some detail in Iten (2000a), this is a very elegant account. Without a doubt, it captures the most natural interpretation of (15):

(15) It's raining but I need some fresh air.

Uttered in the scenario described above, where the speaker and the hearer are debating whether or not to go for a walk, *P* (*it's raining*) is an argument for ¬*R* (*I don't want to go for a walk*), *Q* (*I need some fresh air*) is an argument for *R* (*I want to go for a walk*) and, intuitively *Q* is the

stronger argument, because the overall drift of the speaker's utterance will surely be that she wants to go for a walk (in other words, the overall conclusion is *R*). However, the beauty of this account is that (44) not only does a good job in accounting for examples that involve indirect denial of expectation, it is also perfectly suited to account for examples that involve direct denial of expectation. For instance, (12) could be analysed as follows:

(12) John is a Republican but he is honest. (G. Lakoff, 1971, p. 67)

P(*John is a Republican*) is an argument for ¬*R* (*John isn't honest*), *Q* (*he is honest*) is an argument for *R* (*he is honest*) and *Q* is the stronger argument than *P*. As this shows, in such a case $R = Q$, and the condition that *Q* be a stronger argument for *R* than *P* for ¬*R* is fulfilled trivially, since it is hard to imagine that *P* could be a stronger argument for something than *Q* is for itself.

Assuming that compensation *but* and contrast *but* can be reduced to denial of expectation *but*, A & D's account is very successful. Although it is not, on the face of it, equipped to deal either with discourse (topic-shifting) *but* or with utterance- and discourse-initial uses of *but*, it is at least conceivable that the account could be modified so as to accommodate these uses. For instance, if *P* were not restricted to just the propositional content of a linguistic clause, but instead were free to be any kind of assumption accessible in the context, discourse uses of *but* and *but* in utterance- and discourse-initial positions, such as (37), would no longer be problematic:

(37) [Peter puts some salmon on Mary's plate]

Mary But I'm allergic to fish.

This, however, would be quite a radical move away from A & D's account and into the kind of account I will ultimately want to give in a relevance-theoretic framework.

It is a sign of the success of A & D's (1977) account of *but* that many theorists have adapted it to fit their own frameworks, or even adopted it wholesale. For instance, Winter and Rimon (1994) give an account of *but* (and other 'contrastive' connectives) in the formal semantic framework of Veltman's (1986) data logic, which is based on A & D's intuitions about denial *but*. However, they (1994, p. 374) believe that A & D's Argumentation Theory does not provide 'an explanatory model of the

facts' and is 'rather informal'. By contrast, König (1985, p. 6) more or less adopts wholesale A & D's account of $mais_{PA}$ in defining his notion of ' "adversative" relations', which, according to him, are typically expressed by *but*. Recanati (2001a) also seems to base his conventional implicature account of denial *but* largely on A & D's (1977) analysis, without, however, subscribing to the Argumentation Theory within which A & D's account is framed.

4.4 How many *but*s?

4.4.1 Ambiguity or no ambiguity?

Given the wide range of different interpretations that utterances of the form *P but Q* can be given, the question is what accounts for this diversity? The answer given by Anscombre and Ducrot (1977), Abraham (1979), R. Lakoff (1971), G. Lakoff (1971) and Blakemore (1989) seems to be that at least some of these interpretations arise because English *but* has two (or, for Abraham, three) distinct senses. Indeed, at least Anscombre and Ducrot and Abraham seem to believe that there isn't just one lexical item *but* in the English language, but that there are several. In other words, according to them English *but* isn't just polysemous, but lexically ambiguous.[11]

If one bears in mind that most of these analyses date from a time at which Grice's pragmatic programme hadn't taken root as firmly as it subsequently has, it is not surprising that none of these theorists seems to be unduly worried about postulating lexical ambiguities. Indeed, pre-Grice, there didn't seem to be any really convincing way in which one could have accounted for differences in interpretation using general pragmatic principles rather than postulating lexical ambiguities or polysemies.

However, Grice's 'conversational logic', using his Cooperative Principle (CP) and maxims, provides a means of explaining how one and the same lexical item can receive different interpretations in different contexts. Once there is this possibility of pragmatic accounts of differences in meaning, there must be a way of choosing between them and the more traditional homonymy or polysemy accounts. Grice's (1978) Modified Occam's Razor, which states that senses should not be multiplied beyond necessity, provides a heuristic for making this decision, according to which pragmatic explanations should be preferred whenever their explanatory power is equal to that of ambiguity accounts because of their greater parsimony. Ultimately, of course, the answer to the question of whether English *but* is lexically ambiguous

depends on whether or not a specific unitary account of *but* can be found, on the basis of which the various different interpretations of *but* can be explained pragmatically. However, before considering this, I think it is worth asking what, if any, reasons there are to assume that English *but* has more than a single encoded meaning. For, if there were good reasons, trying to give *but* a unitary semantics would be a pointless enterprise. In the rest of this section I will examine the reasons, particularly those given by A & D (1977), for assuming that *but* is ambiguous.

4.4.2 The case for ambiguity

In general, what seems to have led to the idea that English *but* (and French *mais*) could be ambiguous is cross-linguistic data that shows that there are several languages with more than one lexical item corresponding to English *but*. Thus, Horn seems to speak for many theorists when he states that, where the two functions of *but* (denial and correction, which he terms 'concession' and 'contrast') are concerned:

> the cross-linguistic evidence supports the hypothesis that there is a lexical rather than merely a pragmatic ambiguity involved.
>
> (Horn, 1989, p. 406)

Horn adds weight to his argument by observing that the same distinction is made lexically not just in German and Spanish (1989, p. 406), as discussed by A & D (1977), but also in Swedish and Finnish (and it could be added that a distinction is also made in Hebrew[12]). Surely, one could argue, if so many different languages make the same lexical distinction, then there must be a distinction in languages with only one surface form, such as English and French, too. In fact, I will argue in Section 4.4.3 that, intuitively enticing though this line of argument may be, it isn't actually logically compelling at all.

Horn (1989, p. 407) seems to use as an argument for an ambiguity the fact that correction *but* and denial *but* show different distributional properties. In this, he echoes A & D (1977, p. 33) who argue that there are distributional and syntactic properties that distinguish the two types of French *mais* (and by extension English *but*). They (1977, pp. 34–40) use six arguments to show this. In what follows I will discuss only three of them, since the other three don't seem to work in English as well as they do in French.

First, they argue that, because the first clause of *P but Q* on a correction reading has to contain an explicit negation, while it obviously doesn't

on a denial reading, the two clauses can be reversed with acceptable results in the latter case but not in the former. For instance, while both (45) and (46) are okay, (48) is not. This becomes particularly clear (to German speakers like myself, at least) when these sentences are translated into German, as in (49)–(50) and (51)–(52):

(45) He isn't tall but he is strong.
(46) He is strong but he isn't tall.

(47) He isn't tall but very tall.
(48) *He is very tall but not tall.

(49) Er ist nicht gross, aber (er ist) stark.
(50) Er ist stark, aber (er ist) nicht gross.

(51) Er ist nicht gross, sondern sehr gross.
(52) *Er ist sehr gross, sondern nicht gross.

Second, A & D (1977, p. 35) observe that *but* can be interpreted as involving correction only if the negation in *P* is unincorporated – incorporated negation is not enough. Thus, (53) and (55) are acceptable while (54) and (56) aren't:

(53) It isn't possible but necessary.
(54) *It is impossible but necessary.[13]

(55) Es ist nicht möglich, sondern notwending.
(56) *Es is unmöglich, sondern notwendig.[14]

The third argument A & D give is that, in the case of correction *but*, if *P'* (the unnegated *P*) and *Q* have any part in common, that part is deleted. In the case of denial *but*, however, this shared part is either there explicitly or referred to anaphorically. For instance, *but* in (57) can't be given a correction interpretation (though it can of course be interpreted as a denial of expectation). In order to get a correction interpretation, the material the two clauses have in common has to be ellipsed, as in (24):

(57) That's not my sister but it's my mother.
(24) That's not my sister but my mother.

Note that in German, where the difference between denial of expectation and correction is clearly linguistically encoded, both readings

can be achieved with or without ellipsis – (58)–(61) are all equally acceptable:

(58) Sie ist nicht meine Schwester, sondern sie ist meine Mutter.
(59) Sie ist nicht meine Schwester, sondern meine Mutter.

(60) Sie ist nicht meine Schwester, aber sie ist meine Mutter.
(61) Sie ist nicht meine Schwester, aber meine Mutter.

In fact, A & D (1977, p. 36) claim that if material is ellipsed and the first clause contains an explicit negation, *but* can only be given a correction interpretation. For example (24), this seems right:

(62) *A* You look a lot like your sister.
B She's not my sister but she's my mother.
B' She's not my sister but my mother.

In the scenario in (62), B's utterance will be interpreted as involving a denial of expectation: *P* (*she's not my sister*) implies that A was wrong, while *Q* (*she's my mother*) implies that A wasn't totally wrong (because the woman in question is a close relative of B's). B', on the other hand, can only be taken to be correcting A's mistake without comforting A that he wasn't completely wrong. However, I will argue below that there are some examples where the presence of explicit unincorporated negation and ellipsis are not enough to force a correction reading.

4.4.3 The case against ambiguity

I've shown in the last section that the two main reasons for assuming an ambiguity in English *but* are that a number of other languages have separate lexical items for correction and denial uses of *but* and that the two interpretations have different distributional properties. In this section I will argue that neither of these arguments is compelling.

Granted, the fact that other languages have two (or more) non-synonymous lexical items to capture different interpretations of a single English word makes it tempting to assume that the English word is, therefore, ambiguous. And it certainly is the case that clearly ambiguous words do get several different translations corresponding to their different meanings. For instance, the English word *bat* is translated into German as *Schläger* or *Fledermaus*, into French as *batte* or *chauve-souris* and into Italian as *mazza* or *pipistrello*, depending on whether it is interpreted as 'cricket bat' or 'flying rodent'. In fact, it seems highly unlikely

(though, of course, possible) that there is another language that has one and the same word to describe a hitting implement and a flying rodent. In this respect, *but* is quite different from an undoubtedly ambiguous word like *bat*: although some languages have separate words for denial and correction *but*, many others have the same word for both.

Furthermore, there are many instances where a single word in one language has two non-synonymous translations in another, and the single word is clearly not ambiguous. For instance, surely nobody would want to maintain that the English *cousin* is ambiguous. Nevertheless, German has two different words: *Vetter* for a male cousin and *Base* or *Kusine* for a female cousin. To give one more, maybe slightly more contentious, example: depending on what the adjective *awkward* is combined with, it receives different translations in German. Thus, (63)–(65) receive the translations in (66)–(68), with *awkward* being translated as *veflixt*, *peinlich* or *linkisch*:

(63) This is a very awkward situation.
(64) There was an awkward silence.
(65) He's an awkward lad.

(66) Das ist eine verflixte Situation.
(67) Es entstand eine peinliche Stille.
(68) Er ist ein linkischer Junge.

In spite of *awkward* receiving three different translations, there is no reason to assume that it is actually ambiguous (or even polysemous). What the three German adjectives have in common is that they all attribute various kinds of difficulty or uncomfortableness to the entities denoted by the nouns with which they combine. In other words, it seems at least possible that *awkward* means something quite general, such as 'involving uncomfortable feelings'. Whether this particular example works or not, I believe there is sufficient evidence to urge caution in drawing conclusions about the semantics of a word in one language on the basis of evidence from other languages – although other languages might act as an inspiration, the proof of the pudding has to be found within one and the same language. In other words, the claim that *but* is ambiguous in English must be supported with evidence from English. This is, of course, what the discussion of different distributional properties aims to do.

However, showing, in effect, that correction *but* and denial *but* have complementary distributions is a curious way of supporting the

ambiguity claim. Complementary distribution of senses across linguistic environments is clearly not a property of uncontentiously lexically ambiguous items. Indeed, if both senses of an ambiguous linguistic expressions serve the same syntactic function, one would expect both senses to be available (though not equally accessible) in all utterances. After all, both senses will be linguistically encoded. For instance, both senses of the word *bank* are possible in virtually any linguistic environment. Even in (69), where the linguistic context heavily biases things towards a 'financial institution' reading, *bank* could have its 'river-bank' sense.

(69) Peter took the cheque to the bank.

If *but* is linguistically ambiguous between denial and correction, there should be at least some genuinely ambiguous sentences containing *but*. If this is not the case, there are still two options: either *but* is not ambiguous or the two senses of *but* must serve different syntactic functions. That, however, needs to be demonstrated on independent grounds.

It seems to follow from A & D's discussion that there are no genuinely ambiguous sentences containing *but*. According to them, *but* must receive a correction interpretation if the first clause contains an explicit unincorporated negation and any shared material between the two clauses is ellipsed. In other words, they seem to view the two *but*s as syntactically different. From their analyses it seems that the distinction they draw is the following: denial *but* is a discourse connective that can only connect two fully sentential units, while correction *but* is a conjunction that may connect constituents smaller than complete sentences. This leaves to be explained why examples such as (70) are perfectly standard cases of the denial use of *but*, even though they seem to involve the same amount of ellipsis as standard correction examples:

(70) She is poor but honest.

In fact, contrary to A & D's claim that any example involving explicit unincorporated negation and ellipsis must receive a correction interpretation, the same sort of denial reading is available for examples like (71):

(71) He is not good-looking but successful.

Indeed, this example seems to be genuinely ambiguous between a denial and a correction reading, though the correction reading might, in fact,

be harder to get. However, in the right context, for instance the, admittedly far-fetched, scenario in (72), a correction reading is available:

(72) [A and B are convinced that all male American soap opera characters are either good-looking or successful. They are discussing which characters fall into which category.]

A JR is good-looking.
B He is not good-looking but successful.

Examples (70) and (71) show that the syntactic differences between correction *but* and denial *but* are not as clear-cut as A & D assume. Thus, the option of a syntactically based ambiguity is barred. At the same time, (71) suggests that there are genuinely ambiguous sentences containing *but* and a straightforward ambiguity is no longer completely ruled out. Indeed, it seems that there are other examples where both readings are possible. Consider for instance (73):

(73) Mary did not fail the exam but her name was at the top of the pass list.

Out of context, the most easily available interpretation of this sentence seems to be a correction one: the hearer mistakenly thought Mary had failed the exam when, in fact, her name was at the top of the pass list. However, in the right context, a denial interpretation is available too: if we assume that both failing the exam and appearing at the top of the pass list are seen as embarrassing by the speaker and the hearer, (73) could receive an indirect denial interpretation along the following lines. The first clause (*Mary did not fail the exam*) might imply that Mary's not going to be embarrassed, while the second (*her name appeared at the top of the pass list*) implies that she is.

It seems, then, that a denial interpretation is available for all *but* sentences,[15] while a correction reading is only available for sentences whose first clause contains an explicit unincorporated negation. Which reading is chosen on a given occasion depends on the context more than the syntactic properties of the co-text. Now, this does not rule out a genuine ambiguity, but it doesn't provide an argument in its favour either.

This shows that the reasons for believing that English *but* is ambiguous aren't nearly as good as they might at first appear. It seems, then, that the search for a unitary semantics for *but* might at least be worthwhile. The next few sections of this chapter are devoted to the discussion of analyses that have attempted to do just that.

4.5 *But* the Gricean way

In this section I will very briefly look at some approaches to *but* that could, roughly, be seen as Gricean. I start with what little Grice himself said on this and a brief speculation on how his account might have looked in greater detail. This is followed by discussion of Rieber's (1997) reinterpretation of the Gricean notion of conventional implicature and how this applies to *but*. Finally, I consider how Bach (1999) sees *but*. Even though these three approaches differ in some important aspects, they also share some interesting features. In particular, they all account for the meaning of *but* using a notion of contrast. The analyses of Rudolph (1996) and Fraser (1998) also use a general notion of contrast and, therefore, share many of the problems of the accounts I'm about to discuss.

Let me start with Grice. As already hinted at, he never actually gave a detailed analysis specifically of *but*. All he says is that *She was poor but honest* implies:

> (very roughly) that there is some contrast between poverty and honesty, or between her poverty and her honesty.
>
> (Grice, 1961, p. 127)

He also makes it clear that he regards this implication of contrast as neither part of what is said (the truth-conditional content of the utterance), nor as what he would later come to call a conversational implicature. Instead, he (1961, p. 129) maintains that 'the fact that the implication obtains is a matter of the meaning of the word "but" '. In other words, the implication of contrast is what he (1975/1989, pp. 25–6) later refers to as a conventional implicature. Since the notion of conventional implicature was discussed at some length in Chapter 2, I won't pursue it further here. Let me just say that it is most likely that Grice would have treated *but* (like *on the other hand*, discussed in Section 2.5.3) as indicating the performance of a higher-order speech act of contrasting two ground-floor speech acts. It will be seen below that defining the notion of contrast in such a way as to cover the full range of interpretations of *but* is a challenge. Nevertheless, given Modified Occam's Razor, it seems that Grice would have wanted to do just that. In other words, his account would most likely have seen *but* as encoding a very general concept of 'contrast', with more specific interpretations derived pragmatically.

Rieber (1997) has his own take on the notion of conventional implicature, which he sees in terms of parenthetical performatives. For instance, according to him (1997, p. 53), an utterance of (74) can be analysed along the lines of (75):

(74) Sheila is rich but she is unhappy.
(75) Sheila is rich and [I suggest this contrasts] she is unhappy.

Rieber makes it clear that the contrast in question can be manifested in a variety of ways (1997, p. 54). For instance, it may be a contrast between the contents of the two clauses, or a contrast between implications of the clauses. It seems, therefore, that it is Rieber's intention to make the notion of 'contrast' general enough to cover all possible interpretations of *but* (though he does not consider the 'correction' use of *but*). I will not discuss Rieber's treatment of *but* further, except for some general comments at the end of this Section. Blakemore (2000, 2002) gives a comprehensive and convincing critique of his approach to *but* (and other discourse markers).

Finally, as mentioned in Section 2.5.4, Bach (1999) rejects the notion of conventional implicature in accounting for *but* and opts, instead, for a framework in which single utterances can express multiple propositions.[16] According to him, the meaning of *but* contributes to 'what is said'.[17] More specifically, he (1999, p. 347) takes an utterance of (74), for example, to express the three propositions in (76)–(78):

(76) Sheila is rich.
(77) Sheila is unhappy.
(78) There is a certain contrast between being rich and being unhappy.

As this shows, Bach also opts for the notion of contrast in accounting for the meaning of *but* and he, too, ensures that 'contrast' covers as many interpretations of *but* as possible by making it as general as possible. His view is that the notion of a 'certain contrast' will be pragmatically enriched on particular occasions of utterance. For instance, in the case of (74), the contrast is likely to be that, in general, wealth combats unhappiness.[18]

All three accounts (as well as those of Rudolph, 1996 and Fraser, 1998) have in common the fact that they use a concept of contrast to account for the meaning of *but*: Grice himself might have seen *but* as indicating the performance of an illocutionary act of contrasting; Rieber sees it as indicating the performance of a speech act of suggesting a contrast; and

Bach seems to see it as encoding the vague concept of 'a certain contrast'. It also seems that all three of them would at least try to account for the different interpretations or uses of *but* in the same terms, which means that their notion of contrast has to be vague or general enough to cover a whole range of interpretations. This makes the job of defining CONTRAST rather difficult. In fact, it is telling that neither Grice, nor Rieber or Bach actually make explicit what they mean by 'contrast'. Intuitively, any two things in the world can contrast with each other (just as any two things in the world will have some degree of similarity with each other). So, it seems unlikely that contrast will amount to something as straightforward as contradiction.

Furthermore, no matter how generally or vaguely it is defined, it is hard to see how the concept of contrast could cover correction *but*. Clearly, neither (79) nor (80)–(82) can do justice to the meaning of (24):

(24) That's not my sister but my mother.
(79) That's not my sister and [I suggest this contrasts] that is my mother.
(80) That's not my sister.
(81) That is my mother.
(82) There is a certain contrast between that not being my sister and it being my mother.

This illustrates the difficulty of defining the concept CONTRAST in such a way as to enable a unitary semantic account of *but* in conceptual terms. Indeed, I very much doubt that any concept could be found that would make possible a monosemy account. The question is, therefore, whether *but* is best analysed in representational/conceptual terms, or whether an account in procedural terms would be more promising. This is the topic of the next section.

4.6 Concept or procedure?

The preceding discussion has made it clear that any monosemy account of *but* has to be rather general and abstract in order to capture the wide variety of uses and interpretations this connective can be given. I would argue, in line with Blakemore (1987, 1989), that this can only be achieved if one assumes a procedural semantics for *but*. One of the arguments in favour of this is that the task of finding a concept that *but* could encode, which is general enough to capture all its uses is very difficult, if not impossible. Furthermore, examining *but* in the light of the three tests

for procedural meaning identified in Section 3.3.3 yields more evidence in favour of it encoding procedural, rather than conceptual, meaning.

First, there is the point that most English speakers would find it hard to answer the question 'what does *but* mean?'. Surely, it is easier to answer 'how is *but* used?'. Indeed, A & D's account in terms of felicity conditions illustrates this point beautifully. This is a first indication that the meaning of *but* is probably of a procedural nature and can't easily be brought to consciousness in the way that conceptual representations can.

Second, whatever exactly it is that *but* conveys – it's not truth evaluable. For instance, B's reply in (83), which is objecting to the 'contrast' or 'incompatibility' between *John is a nice guy* and *John is gay* suggested by *but*, is not felicitous. B′ shows that this isn't because this suggestion is intrinsically something that can't be objected to:

(83) *A* John is gay but he's a nice guy.
B *That's not true – there's no incompatibility between him being nice and him being gay.
B′ Come on. You can't seriously suggest that being gay is incompatible with being nice.

The final test is that of compositionality, where the argument is that conceptual expressions easily combine with other conceptual expressions to form larger conceptual representations, while procedural expressions don't enter into this kind of compositional construction. It seems that *but* can't combine with anything else.[19] In this there is a marked difference between *but* and expressions that would have to be taken as (more or less) synonymous with *but* on the conceptual accounts proposed by Rieber (1997) and Bach (1999). Thus, while (84) and (85) are perfectly acceptable, (86) and (87) are not only ungrammatical but uninterpretable:

(84) Sheila is rich and [I strongly suggest this contrasts] she is unhappy.
(85) Sheila is rich and [I don't suggest this contrasts] she is unhappy.
(86) *Sheila is rich strongly but she is unhappy.
(87) *Sheila is rich not but she is unhappy.

Furthermore, (88) demonstrates that descriptive negation clearly can't apply just to the meaning of *but*:

(88) ??John isn't gay but he's a nice guy – (because) there's nothing incompatible between his niceness and his sexuality.

All in all, then, there is a lot of good evidence in favour of *but* encoding a procedure rather than a concept. The rest of this chapter is devoted to the question of what this procedure could be. Of course, I am moving towards a relevance-theoretic account that is explicitly couched in procedural terms. Before getting there, though, I'll consider a number of accounts by theorists from other backgrounds which are also expressed in non-representational terms. I have termed these 'functional' views because they tend to analyse *but* in terms of what it does rather than what it means.[20]

4.7 Functional monosemy views of *but*

4.7.1 *But* as a cancellation marker

Dascal and Katriel, D & K (1977), provide what must be the first unified account of the meaning of *but*. This is particularly remarkable since they're mainly considering data from Hebrew, which, like German, Spanish, Finnish and Swedish, has two words for *but*, roughly corresponding to denial and correction *but*. Thus, it would be understandable if they, like A & D, had reached the conclusion that *but* must be ambiguous. However, while recognising that Hebrew *aval* and *ela* perform subtly different functions, their analysis indicates that there is no reason at all to assume that English *but* can't be accounted for in a unified way.

The claim at the heart of D & K's (1977) analysis is that utterance meaning has several 'layers':

> ranging from the more to the less explicit, from an inner 'core' of content to contextually conveyed implicatures *via* layers and sublayers such as presuppositions, modality, illocutionary force and felicity conditions.
>
> (Dascal and Katriel, 1977, p. 153)

The idea is that, generally, the speaker and hearer assume that all of these layers are conveyed simultaneously. The function of *but* in this framework is to indicate that not all of these layers are accepted by the speaker. As D & K (1977, p. 153) put it:

> The point of using an 'aval' or 'ela' utterance is to mark explicitly some particular separation between a pair of layers (or sublayers), or a contrast within a given layer. Such sentences foremostly indicate a refusal to accept all the layers of meaning of an utterance *en bloc*.

They then proceed to demonstrate the variety of layers of meaning that *aval* and *ela* can be used to cancel, covering the whole gamut from semantic presuppositions and assertions to conversational implicatures (via illocutionary force, modality and felicity conditions). In what follows, I give an example of each of these categories (indicating in brackets whether the particle used in the Hebrew example was *aval* or *ela*).

According to D & K (1977, pp. 154–5), what B and C's utterances in (89) cancel is the minor assertion that the Pope is the only leader of the Christians, while in (90) they cancel the semantic presupposition that Dan beat his wife:

(89) *A* The Pope, who is the only leader of the Christians, is elected by the cardinals.
B That's right, but the Christians have other leaders. (*aval*)
C He's not the only leader but one of the most important. (*ela*)

(90) *A* Dan stopped beating his wife a long time ago.
B But he has never beaten her. (*aval*)
C He didn't beat her but only threatened to do so. (*ela*)

According to D & K, *aval* and *ela* can also be used to cancel aspects of the illocutionary content of an utterance (1977, p. 156). For instance, D & K claim that B and C's utterances in (91) cancel A's commitment to the command she's issued:

(91) *A* Throw out all this material.
B Okay, I'll throw it out, but I know that tomorrow you'll want it again. (*aval*)
C You don't really mean that I should throw it out but just say so. (*ela*)

What is cancelled in (92), according to D & K (1977, p. 157) is the modal force of A's utterance:

(92) *A* It is possible to postpone the exam for next week.
B But three exams have already been set for next week. (*aval*)
C It's not possible but obligatory. (*ela*)

(93) shows that *aval* and *ela* can cancel felicity conditions. Here, B and C's utterances cancel a preparatory condition of A's request, namely that the hearer is in a position to perform the required action

(D & K, 1977, p. 158):

(93) *A* Open the door, please.
B But it's open. (*aval*)
C It's not closed but only looks closed because it's made of glass. (*ela*)

Finally, D & K (1977, p. 159) see *aval* in B's utterance in (94) as cancelling a conversational implicature of the first conjunct of her utterance. They don't give an example of *ela* cancelling a conversational implicature and it seems that that's not possible.

(94) *A* What do you think of the new Prime Minister?
B He has a clever wife but I don't mean to imply that there is anything wrong with him.

So far, I've only reported how D & K see *aval* and *ela* as functioning in similar ways, namely as cancellative operators. However, there are differences between the two – D & K (1977, pp. 160–1) discuss the following three.

First, *P aval Q* functions to separate different layers of meaning, that is, *P* indicates acceptance of one layer and *Q* indicates the rejection of another. An utterance of *P ela Q*, on the other hand, relates statements belonging to the same layer of meaning, that is, *P* indicates the rejection of one element and *Q* indicates its replacement by another of the same order. Second, *ela* utterances are symmetrical in the sense that they explicitly mention both what is cancelled and its replacement, whereas in *aval* utterances acceptance of one layer of meaning is often implicit. Finally, the function of negation in the first conjunct differs between *aval* and *ela* utterances. With *aval* if there is a negation in *P*, it expresses a negative assertion, while it expresses denial, or rejection of a previously made statement in *ela* utterances. This tallies well with Anscombre and Ducrot's observations concerning the differences between correction *but*, which seems to correspond to *ela*, and denial *but*, which corresponds to *aval*.

Summing up, D & K state that:

> Both [*P aval Q*] and [*P ela Q*] utterances are to be primarily understood as reactive speech-acts, through which some cancellatory function relative to a prior utterance or its contextual equivalent is performed. (1977, p. 171)

This quote brings out both the strong points and the weaker points of D & K's analysis. One of its weaker points is the claim that *but* utterances are reactive speech acts, which seems to imply not only that discourse-initial uses of *but* are impossible, but also that it is impossible to open a discourse with a complete *but* utterance (an utterance of the form *P but Q*). As seen above, both of these things are, of course, perfectly possible. Perhaps an explanation for such a counter-intuitive conclusion lies with the kind of examples D & K consider. Unlike anyone else in the literature, they base their analysis almost exclusively on examples that involve exchanges between two people with the *but* utterance being made as a reaction to an initial utterance. Now, while these uses of *but* are certainly possible, I doubt that they are as typical as D & K seem to think (though, of course, I can only speak for their frequency in English and not in Hebrew). Another point of D & K's analysis one might want to question is in the detail of their view of the different layers of meaning. While it is standard practice to assume that utterances convey several propositions or assumptions, some explicitly and some implicitly, it is doubtful whether utterances actually communicate assumptions about their felicity conditions. However, these are relatively small worries. The great strength of D & K's analysis lies in providing a basis for a unitary semantic analysis of *but* in English. In the spirit of D & K, *but* could be seen as a general cancelling operator, which, unlike Hebrew *aval* and *ela*, doesn't encode any information about what 'layer' of meaning is being cancelled. Bell (1998) provides just such an analysis of *but* based on Dascal and Katriel's work.

Bell analyses *but* (and other 'contrastive' markers) in terms of cancellation. According to him, a relation of cancellation obtains between two discourse segments, *P* and *Q*, if 'an aspect of information derived from *P* is canceled in *Q*' and:

> An aspect of information is any piece of information which is derivable, though not necessarily derived, by the hearer from the prior discourse context either globally or locally with respect to any feature of the act of communication such as propositional content, illocutionary force, perlocutionary effects in terms of face, politeness, mood, etc., and conversational conventions such as turn-taking and topic change.
>
> (Bell, 1998, p. 527)

Unlike D & K, Bell seems to allow for the possibility of *but* cancelling aspects of information that don't just arise from immediately preceding

linguistic material; rather, he sees *but* as 'operating on aspects of information within the global and local discourse context' (1998, p. 518). This could be interpreted as saying that the information that is being cancelled doesn't necessarily have to be the result of communication, which would mean that Bell can account not just for utterance-initial but also for discourse-initial uses of *but*. However, he doesn't seem to intend this, as he states that 'Cancellation, therefore, can be understood as acting on all aspects of communication' (Bell, 1998, p. 529). This seems to imply that *but* can't be used to initiate communication the way it does in (37):

(37) [Peter puts some salmon on Mary's plate]

Mary But I'm allergic to fish. (Rouchota, 1998b, p. 25)

While Bell may have some difficulty in accounting for discourse-initial *but*, he has no problems explaining denial of expectation and discourse *but*. According to him, the (discourse) use of *but* in examples like (33) indicates the cancellation of the 'topic domain' of the previous paragraph:

(33) *A* We had a very nice lunch. I had an excellent lobster.
B But did you get to ask him about the money?

He will, however, have some work to do to explain correction *but*: the *but clause* in (24) certainly can be seen as cancelling something, namely the assumption that the woman in question is the speaker's sister, but that something is quite clearly not part of what is communicated, at least not by the speaker uttering (24):

(24) That's not my sister but my mother.

Furthermore, the way in which Bell (1998, p. 529) sees what is communicated, following coherence theory, is not entirely uncontentious. Nevertheless, I believe that, like Dascal and Katriel, Bell is essentially on the right track.

4.7.2 Denying expectations

Foolen (1991), too, gives a promising account of *but*. He sees the connective as having functional meaning relevant to the integration of

new information (the *but clause*) into the previous discourse (the first clause and its context). In particular, he analyses *but* as indicating denial of expectation. As mentioned in Section 4.2, he (1991, pp. 84–5) argues that contrast or 'semantic opposition' uses of *but* still involve denial of expectation. He uses the examples in (95)–(97) to support his claim:

(95) *A* John and Peter don't live in the same place, do they?
B No, John lives in Amsterdam and/??but Peter lives in Rotterdam.

(96) *A* John and Peter both live in Amsterdam, don't they?
B No, John (indeed) lives in Amsterdam but/??and Peter lives in Rotterdam.

(97) *A* Where do John and Peter live?
B Well, John lives in Amsterdam and/but Peter lives in Rotterdam.

According to Foolen, these examples show that *but* can only introduce the second clause in contexts in which it can be seen as denying an expectation. In (95), where there is an expectation that John and Peter don't live in the same place and, therefore, there is no expectation for the *but clause* to deny, Foolen believes that *but* sounds odd. In (96), on the other hand, where there is an expectation that John and Peter do live in the same place, which is denied by the second clause, the use of *but* is more felicitous than that of *and*, according to Foolen. Finally Foolen maintains that in (97) either *but* or *and* can be used because there is no specific expectation apparent. However, he (1991, p. 85) believes that the use of *but* indicates that B thinks that A might have thought that John and Peter live in the same place (maybe because A asked about them in the same breath). I find Foolen's argument convincing. There does, indeed, seem to be a marked difference between the use of *and* and *but* in these examples (and in general), though not everyone agrees with Foolen's intuitions about the acceptability of *and* and *but* in (95)–(97). This, however, could be because other readings than those envisaged by Foolen are possible.[21] On the whole, I believe that Foolen's account can deal with denial of expectation and contrast without too many problems. How does he deal with the other uses of *but*?

Foolen's position on correction *but* is intriguing. He acknowledges that the difference between denial *but* and correction *but* could readily be seen as a case of polysemy, but he prefers to maintain that the denial

of expectation function of *but* is its univocal core meaning and remains even in correction uses. According to him correction *but* indicates 'that the second conjunct denies the possible expectation that the previous, quoted, assertion might be a true one' (1991, p. 88). And in his conclusion he says that:

> for example, *not big but small* might be paraphrased as: 'small and not big', 'big' being a reasonable expectation on the basis of the previous discourse.
>
> (Foolen, 1991, p. 90)

I believe that this way of looking at correction *but* is essentially correct. However, it cannot be quite right, because it doesn't explain metalinguistic cases. For instance, Foolen's paraphrase of the perfectly acceptable (98), would be the unacceptable (99):

(98) She's not happy but ecstatic.
(99) *She's ecstatic and not happy.

More generally, the idea that *but* denies an **expectation** seems too strong. I will argue below that *but* can be used to deny assumptions that nobody expects and, more importantly, that nobody anticipates to be expected by anyone.

Even though Foolen doesn't consider discourse uses of *but*, I believe that his account could handle them. Arguably, the first paragraph of (34), the example from *The Guardian*, raises the expectation that the article is dealing exclusively with the police's failure to use DNA technology, which is promptly denied by the second paragraph, which is about the police's illegal holding of samples. Furthermore, utterance-initial uses of *but* present no problem for this account, because it analyses *but* as indicating the denial of an expectation raised (or supposedly raised) in the previous discourse, which may or may not have been produced by the same speaker. Unfortunately, Foolen's account, just like Dascal and Katriel's and Bell's, doesn't seem too well equipped to deal with discourse-initial uses of *but*. In the next Section, it will be seen that Blakemore's relevance-theoretic account has no problems accounting for discourse-initial uses of *but*. In the final section of this chapter, I will propose a unitary account of the meaning of *but* that combines the best points of the functional analyses discussed in this Section with the best points of Blakemore's account.

4.8 Towards a relevance-theoretic account

4.8.1 Denial and contrast: Blakemore

Out of all the potentially different interpretations or uses of *but*, Blakemore (1987, 1989) concentrates on denial of expectation and contrast.[22] She gives an account of *but* on both of those interpretations in procedural terms. While she gives the same account of denial *but* in 1987 and 1989, her analysis of contrast *but* changes in interesting and important ways. Let me start by looking at how she accounts for denial of expectation examples, such as (12):

(12) John is a Republican but he is honest. (G. Lakoff, 1971, p. 67)

According to Blakemore, the procedure encoded by *but* reduces the hearer's processing effort by pointing him towards the intended contextual effects of the clause it introduces. More precisely, *but* indicates that what follows contradicts and eliminates an assumption the hearer is likely to have derived in the context. This means that *but* not only indicates to the hearer how the clause it introduces is relevant, but it also provides some evidence as to how the speaker thinks the hearer might have interpreted the previous clause (or discourse). In the case of (12), the denial is direct: the proposition expressed by the *but* clause directly contradicts (and eliminates) the assumption that John is dishonest.

Blakemore notes that the *but clause* doesn't always deny an assumption directly (1987, p. 129; 1989, pp. 25–7). In other words, it's not always the propositional content of the *but* clause itself that contradicts the assumption. For instance, in (15) it is an implication of the *but* clause that contradicts (and eliminates) an implication of the previous clause:

(15) It's raining but I need some fresh air.

Mary might utter this sentence in response to Jack asking whether she's coming for a walk. In this context, Jack might well infer from the first clause that Mary isn't coming for a walk. This assumption is denied by the implication of the second clause that Mary is coming for a walk. Thus, the second clause has an implication that contradicts and eliminates an implication of the first. By using *but* to introduce the second clause, Mary indicates that the first clause may have led Jack to derive

an assumption that is going to be contradicted. In this case, the denial is indirect.

The advantage of this account over, say, Anscombre and Ducrot's, Dascal and Katriel's or Bell's is that it can handle not just utterance-initial, but also discourse-initial uses of *but*. This is because it only claims that *but* indicates that the clause it introduces contradicts and eliminates (or denies) an assumption available in the context and there is no requirement that the assumption has to have been communicated. In fact, it will be seen later that this point is crucial. Let me demonstrate how Blakemore's account works for B's utterance in (36) and Mary's utterance in (37):

(36) *A* It's time for bed now.
B But you said I could watch the end of Brookside.

There are (at least) two ways in which B's utterance (36) can be interpreted as a denial. It could be seen as (indirectly) denying the proposition expressed by A's utterance, that is, as implying that it isn't time for B to go to bed. Another option is that B's utterance indirectly denies an implication of A's utterance – maybe something like *it's reasonable for A to ask B to go to bed now*.

(37) [Peter puts some salmon on Mary's plate]

Mary But I'm allergic to fish.

In (37), too, *but* indicates that Mary's utterance denies an assumption available in the context. Since Peter hasn't actually communicated with Mary at all, this assumption can't be one he communicated. However, in the scenario in which he has just put a piece of salmon on Mary's plate it is relatively easy to access an assumption that is (indirectly) denied by her utterance. For instance, most people will put food on other people's plates with the expectation that the recipient is going to eat the food. Thus, Peter is highly likely to be entertaining the assumption that Mary will eat the salmon. However, Mary's utterance clearly implies that she won't eat the salmon, because she is allergic to fish. In this way, Mary's utterance denies an assumption Peter is likely to be making.

When it comes to dealing with 'contrast' examples, such as (18), Blakemore has offered two different approaches: Blakemore (1987, as well as 2000 and 2002) accounts for contrast *but* as a special case of denial *but*, while Blakemore (1989) treats it as encoding a separate (though related) constraint.

(18) John is tall but Bill is short. (R. Lakoff, 1971, p. 133)

Blakemore (1987, pp. 137–8) essentially believes that *but* indicates that the clause it introduces is relevant as a denial in all instances. It may not be immediately obvious that this is the case in (18), but Blakemore (1987) makes a convincing case for her position. The key, she argues, is to consider in what kinds of circumstances someone would utter a sentence like this. The answer is that there are roughly two possibilities. The first is that there is some reason to believe that one might take the first clause (*John is tall*) to imply that Bill is tall too (say, because they're twin brothers). In such a scenario, (18) would receive a straightforward denial of expectation interpretation: *Bill is short* directly denies an implication of *John is tall*. While this is a perfectly possible scenario, it is, perhaps, not the most likely. It is more probable that (18) will be uttered to convey something like 'Bill isn't like John'. In such a case, what the *but clause* denies, according to Blakemore (1987, p. 138), is the consequent of a conditional premiss. This conditional premiss will be something like 'If Bill is like John, then he is tall.' By denying the consequent of this premiss, the *but* clause gives rise to the implication that Bill isn't like John. However, she doesn't give a complete explanation of why this conditional assumption concerning the ways in which John and Bill are alike (rather than one concerning ways in which they differ) should be accessed. I'll return to the question of how 'contrast' uses of *but* can be accounted for in Section 4.9.1.

As mentioned above, Blakemore's (1989) account of 'contrast' *but* is different from her (1987) account. There, she (1989, p. 17) claims that *but* has more than a single meaning and that the interpretation of 'contrast' cases involves a different procedure from the one involved in denial uses. The most important difference between the two meanings of *but* is that *but* is seen as a discourse connective only on a denial of expectation reading, while contrast *but* is a conjunction. That is, where Blakemore (1987) saw *P. But Q.* as the 'real' structure of *P but Q* on either reading of *but*, she now sees it as applying only to denial *but*. The structure of a *but* utterance on the contrast reading, she now maintains, is conjunctive and thus captured adequately by *P but Q*. What the contrast *but* in (18) indicates, according to Blakemore (1989, p. 34), is that the hearer should derive a proposition of the form *not (F(Bill))*. It is the function of the first clause to give the hearer access to a property *F* whose ascription is negated in the second clause. In this, Blakemore's contrast *but* is closely related to her denial *but*. The main difference seems to be that denial *but* denies an assumption or proposition made accessible by

the first clause, while contrast *but* denies a property (also made accessible by the first clause).

Since Blakemore (2000, 2002) returns to an analysis framed in the Gricean spirit, according to which *but* encodes a single constraint, and there is good independent evidence that contrast *but* is best accounted for as a kind of denial use, I will not dwell on her (1989) distinction further. Instead, I'll concentrate on a more important question. According to Blakemore, *but* indicates that the clause it introduces is relevant as the contradiction and elimination of an assumption. The question this raises is where the contradicted and eliminated (or denied) assumption comes from and what its status is. In other words, is it an assumption the speaker has previously communicated, one the hearer might have mistakenly assumed the speaker to have communicated, one the hearer might have inferred without necessarily assuming that the speaker intended to communicate it, or an assumption from a different source altogether?

4.8.2 What is denied: communicated assumptions, manifest assumptions or accessible assumptions?

Blakemore's answer to the question of the status of the assumption a *but* clause denies is not entirely straightforward. In different places she describes it as 'part of [the] interpretation' of the first clause (1987, p. 129), 'a contextual implication' (1989, p. 27) or an assumption 'derived from the first [clause]' (2000, p. 479). The first two formulations clearly point in the direction of the denied assumption being part of what the speaker intended to communicate with the previous clause. According to Sperber and Wilson (1986, p. 63), a speaker who intends to communicate an assumption *I* makes it mutually manifest to herself and her hearer that she intends to make *I* manifest or more manifest. Recall that, according to Sperber and Wilson (1986, p. 39) an assumption *I* is manifest to an individual at a certain time just in case she is capable of entertaining it and accepting it as true or probably true at that time. In somewhat simplified terms, then, a communicated assumption is one the speaker intends the hearer to be capable of entertaining and accepting as true or probably true as a result of her utterance.

This makes it unlikely that *but* indicates that the clause it introduces denies a **communicated** assumption. First, as Rieber (1997, p. 69) rightly points out, this picture would raise the question why any speaker would communicate an assumption and then immediately deny it with the *but* clause. Furthermore, discourse-initial examples, such as (37)

show that *but* clauses can be used in circumstances where absolutely nothing has been communicated previously:

(37) [Peter puts some salmon on Mary's plate]

Mary But I'm allergic to fish. (Rouchota, 1998b, p. 25)

This leaves Blakemore's (2000, p. 479) formulation, according to which the denied assumption is 'derived' from the first clause (or, by extension, the context). This is much less strong than the idea that the denied assumption is communicated by (or part of the interpretation of) the previous clause. In fact, it seems to amount to the claim that the denied assumption is **manifest** in the context. Note that this is not the same as **intended to be made manifest or more manifest** by the speaker. All manner of assumptions may become manifest (or more manifest) to a hearer on the basis of a speaker's utterance, but only a subset of those will have been intended by the speaker. Take, for instance, Mary's utterance in (100):

(100) *Peter* Do you have the time, please?
Mary [in an Irish accent] It's a quarter past five.

This utterance is not only likely to make it manifest to Peter that it's a quarter past five in the afternoon but also that Mary is Irish. However, it's clear that Mary only intended to make manifest the former. The assumption that Mary is Irish becomes manifest to Peter independent of Mary's intentions. Something similar might go on in the case of utterances containing *but*. For example, it might become manifest to Jack that Mary isn't coming for a walk on the basis of her utterance of the first clause of (15):

(15) It's raining but I need some fresh air.

It's not very likely that she intends to **communicate** this assumption, but she is highly likely to be aware that the assumption could become manifest to Jack on the basis of her utterance of *it's raining*. She could then use *but* to indicate that the following clause is going to contradict and eliminate a manifest assumption, in this case the assumption that she isn't coming for a walk. This raises the question why Mary doesn't just state outright that she's coming for a walk. The simple answer to this question is that Mary manages to communicate much more than

that she's coming for a walk by her utterance of (15): she's acknowledging that it's raining (or possibly alerting Jack to something he hadn't noticed); she's giving a reason for wanting to go for a walk (her need for fresh air); and she's making it clear that she understands that rain might be a good reason for not going for a walk – one which is, however, not stopping her on this occasion.

The idea that the denied assumption is manifest without being communicated is rather promising, though Blakemore's (2000) claim that the assumption is 'derived from the first [clause]' is clearly too restrictive (it doesn't apply to cases where there is no first clause). This could be easily remedied by saying that the *but* clause denies an assumption that is derived (or likely to be derived) in the context. However, there are a number of examples that are *prima facie* problematic for this account. The most obvious problem is posed by examples of correction *but*. For instance, the *but* clause in (24) is most likely to be intended to deny the assumption that the woman in question is the speaker's sister. However, it's not clear that this assumption could still be manifest to the hearer because the function of the first clause seems to be to deny this very same assumption:

(24) That's not my sister but my mother.

Another example that seems to cast doubt on the idea that *but* indicates the denial of a manifest assumption is given in (101):

(101) Tom should have been there but he got stuck in traffic.

At least on the face of it, it seems that the *but* clause (*he got stuck in traffic*) denies the assumption that Tom was there – an assumption that is no longer manifest after the first clause (*Tom should have been there*) has been processed. Indeed, it seems that *Tom should have been there* makes manifest the very opposite of the assumption the *but* clause seems to deny, namely that Tom wasn't there.

It was on the strength of examples such as these that I suggested in Iten (2000c) that the denied assumption needn't be **manifest** but only **accessible** in the context. What I meant by 'accessible in the context' was weaker than manifest: that is, by saying that the *but clause* denies an assumption which is accessible, but not necessarily manifest, I meant that the assumption must merely be 'entertainable' and doesn't necessarily have to be accepted as true or probably true. This clearly gets around the perceived problems with examples like (24) and (101). It is widely accepted that utterances expressing negative propositions

make accessible their positive counterparts. Thus, *That's not my sister* might not make **manifest** the assumption that the woman in question is the speaker's sister, but it certainly makes it **accessible**. Similarly, the subjunctive utterance *Tom should have been there* makes accessible the proposition that Tom was there. Indeed, it is most naturally interpreted as communicating that TOM$_x$ WAS AT PLACE P AT TIME T should have been true.

In Iten (2000c), I went on to demonstrate that all uses of *but* could be accounted for on the assumption that the connective procedurally encoded the information that the following clause contradicts and eliminates an assumption accessible in the context. However, there are a number of reasons this analysis cannot be correct. First, as pointed out by Hall (2003), it's not clear what the hearer would gain from being informed that a certain accessible assumption, quite possibly one he was never even going to consider, should be eliminated. Indeed, it's hard to see how something that was never represented as true or probably true could be contradicted and eliminated. Second, if an assumption need be no more than accessible for a *but* clause to be able to deny it, *but* should be acceptable in circumstances in which it clearly isn't. Consider, for instance, (102):

(102) ?John doubts that Mary is nice but she isn't.

On the analysis proposed by Iten (2000c), this utterance should be acceptable: the *but* clause denies the assumption that Mary is nice, which is surely made accessible (though clearly not manifest) by the first clause (*John doubts that Mary is nice*). In reality, of course, the utterance is not acceptable on that interpretation. The only interpretation on which it is acceptable is one where *John doubts that Mary is nice* is seen as implying (or making manifest) that Mary is nice. This would, for example, be the case in a context in which it is mutually manifest to the speaker and the hearer that John has such bad judgement that, whatever he thinks of people, the opposite is likely to be true. Similarly, if the assumption the *but* clause denies is manifest rather than just accessible, it makes sense that the speaker would want to make it clear that it's being denied (otherwise, the hearer might come away with the wrong impression). This indicates that, if a denial account of *but* is on the right track, the denied assumption must surely be one that is manifest in the context. Accessibility is just too weak a requirement to do the job. Of course, how such an account can explain correction uses of *but* and examples along the lines of (101) remains to be explained. This is what I will do in the final section of this chapter.

4.9 Denial of a manifest assumption

4.9.1 Accounting for the examples

I propose that the single meaning of English *but* is best captured by saying that it encodes the procedure in (103):

(103) What follows (*Q*) contradicts and eliminates an assumption that is manifest in the context.

There are a few important points to be made about this analysis. First, the question of who this assumption is manifest to is left open, though in most cases it will be the hearer.[23] Second, the requirement is just that the assumption be manifest (or, to be more precise, seem to the speaker to be potentially manifest), that is, the hearer need not have actually represented the assumption prior to processing the *but* clause. Once the *but* clause is processed, of course, the hearer has to grasp what sort of assumption the speaker wants him to delete. If the hearer can't see what sort of assumption the speaker intends to be contradicted and eliminated, the hearer will perceive the use of *but* as unacceptable. This could, for instance, be the case with an utterance of (104):

(104) ?My mother works in an office but my grandfather was an accountant.

Third, there is no requirement that the denied assumption be made manifest by the clause immediately preceding the *but* clause. In other words, the assumption to be denied could, in principle, be made manifest by anything at all. However, it follows from the precepts of Relevance Theory that for the interpretation of the *but* clause to go along the lines the speaker intended, the denied assumption has to be easily accessible. Otherwise, trying to find the assumption the speaker intended to be contradicted and eliminated would demand too much processing effort from the speaker, thus rendering the utterance less than optimally relevant (and so making it unlikely that the hearer will process the utterance fully). Because an assumption that is made manifest by the immediately preceding clause is generally going to be more accessible than one made manifest by something else, the relevance-theoretic prediction is that the preferred interpretation is one on which the *but* clause denies an assumption made manifest by the first clause wherever possible.

I have indicated in the previous section how the analysis of *but* proposed here can account quite easily for typical 'denial of expectation'

uses of *but* and I will only briefly repeat the account here. For instance, the *but* clause in (1) is most likely to be intended to contradict and eliminate the assumption that Peter didn't go out:

(1) It was raining but Peter went out.

This assumption is highly likely to have become manifest to the hearer on the basis of *it was raining*. A similar explanation can be given for the indirect denial example in (15):

(15) It's raining but I need some fresh air.

It's raining is likely to make manifest the assumption that the speaker won't go for a walk, *I need some fresh air* indirectly denies this by implicating that the speaker will go for a walk. In both these cases the *but* clause denies an assumption that is highly likely to have become manifest to the hearer on the basis of the first clause. This, however, is not the case in all *but* utterances. Consider, for example (12):

(12) John is a Republican but he is honest. (G. Lakoff, 1971, p. 67)

As mentioned at the beginning of this chapter, this example is mildly humorous. I suggest that this is because the *but* clause here denies an assumption that is not very likely to have become manifest to the hearer on the basis of the first clause. In order for the speaker's use of *but* to make sense, the hearer has to realise that the speaker thinks that it might have become manifest to the hearer that John is dishonest on the basis of the assumption that he is a Republican. It seems that this is funny because the belief that Republicans are dishonest is the sort of thing that could get one into legal trouble if it were expressed explicitly. In this example, the hearer might have to back-track in order to work out which assumption the speaker wishes to be eliminated and to discover the contextual assumption that would have led to the denied assumption becoming manifest in the first place.

Since the evidence indicates that 'contrast' uses are in fact the same as 'denial' uses of *but*, the proposed analysis can account for these too. Indeed, the fact that the denied assumption is merely required to be manifest, rather than represented or 'expected', means that it can easily account for examples, such as (18), where it's far from obvious that the first clause raises an **expectation** that the second clause denies.

(18) John is tall but Bill is short. (R. Lakoff, 1971, p. 133)

It's at least possible that John is tall makes manifest the assumption that Bill (or any other person that might be talked about next) is tall, even if just very weakly. It could, for instance, be that the mere fact that the speaker is talking about John and Bill in the same utterance makes it more likely that they share the property being talked about.

As hinted at above, the use of *but* which is hardest to account for on the proposed analysis is the correction use. For instance, it's not immediately clear that the assumption that the woman in question is the speaker's sister could still be manifest by the time the hearer comes to process the *but* clause in (24):

(24) That's not my sister but my mother.

However, I believe that the typical circumstances in which such an utterance would be made sheds light on this question. More specifically, the key lies with Anscombre and Ducrot's assertion that correction *but* can only be used when the negation in the first clause is 'polemic' or 'metalinguistic' in the loose sense. In other words, utterances containing *but* can only be interpreted as involving correction if the assumption negated in the first clause is attributed to someone other than the speaker (normally the hearer). Thus, (24) would typically be uttered in a scenario along the lines of (105):

(105) *A* Your sister looks a lot like you.
B That's not my sister but my mother.

Here, it is clear from A's utterance that he thinks the woman in question (let's call her C) is B's sister. Depending on how strongly A believes this, it's entirely possible that B's assertion that C isn't her sister is not enough to make A discard the assumption that C is B's sister. In other words, from B's point of view, it's quite likely that the assumption that C is her sister is still manifest to the hearer by the time he comes to process the *but* clause. It thus makes sense for B to use a *but* clause to contradict and eliminate the assumption the first clause hasn't quite succeeded in eliminating. The assertion that C is B's mother is likely to succeed in eliminating A's mistaken assumption: after all, it's rare (if not entirely impossible) for one and the same person to be someone's mother and sister and thus the assumption that C is B's mother is good evidence for her not being B's sister. This shows that, even in correction cases, *but* is

used if the speaker thinks there is a danger that an 'undesirable' assumption could be manifest to the hearer.[24]

If the account of correction *but* just given is correct, one would expect its use to be infelicitous in utterances where it's unlikely that the hearer's mistaken assumption is still manifest after it's been negated. Examples such as (106) seem to confirm this:

(106) *A* You look tired.
B ?I'm not tired but full of energy.

B's utterance here does not seem particularly felicitous. This could be explained on the assumption that *but* indicates the denial of a manifest assumption: if the hearer is going to believe the speaker in this matter, the assertion that she is not tired should be enough to convince him and thus there would be no manifest assumption for the *but* clause to deny. If, on the other hand, he's not going to believe her, the assumption that she's tired will still be manifest to him after he's processed the first clause, but her assertion that she's full of energy is no more likely to convince him than the first clause. I believe this supports the proposed account of *but*.

Blakemore (2002, pp. 113–15) mentions a number of other examples that seem to be incompatible with an analysis according to which *but* indicates that the clause it introduces contradicts and eliminates a manifest assumption and suggests that they provide reasons to adopt the analysis of Iten (2000c), on which the *but* clause denies an accessible assumption. The first of these is an example along the lines of (101), discussed briefly in the previous section:

(101) Tom should have been there but he got stuck in traffic.

According to Blakemore, what the *but* clause denies here is not the assumption that Tom was there but a consequence of this assumption had it been true. In her own words:

> it seems that the speaker of, for example [(101)], expects the hearer to speculate on the consequences of [the assumption that Tom was there] should it have been true, or in other words, that the hearer is expected to consider the consequences of [the assumption that Tom was there] being true in a possible world which is in all other respects the actual world.
>
> (Blakemore, 2002, p. 113)

However, this is not an adequate defence of the 'denial of an accessible assumption' view. As pointed out by Hall (2003, 2004), the only circumstances in which there is any point in the speaker's denying an assumption are those where she senses that there is some danger that the assumption might be, or might become, manifest to the hearer. This casts serious doubt on Blakemore's account of examples such as (101): if the assumption that Tom was there is not manifest, its possible consequences can't be manifest either (at least not by virtue of being consequences of Tom being there). Therefore, there is little point in the speaker denying them. Contrary to the picture painted in Section 4.8.2, it's at least possible that *Tom should have been there* could make (weakly) manifest the assumption that he was there and that it is this assumption that gets denied by the *but* clause in (101). However, it seems more likely that the *but* clause is intended to deny another assumption. Following Hall's (2003) account of a similar example, it could be that *Tom should have been there* makes manifest the assumption that he's at fault for not turning up, which is indirectly denied by *he got stuck in traffic*, which implies that it wasn't Tom's fault he didn't make it to the meeting.

Blakemore considers two further examples that, according to her, seem to undermine the claim that *but* indicates the denial of a manifest assumption (2002, p. 114). The first of these is (107), which she attributes to Rieber (1997):

(107) Tom thinks that Sheila is rich but unhappy. But I have always thought that all rich people are unhappy.
(108) This is Paul. He's a syntactician, but he's quite intelligent.
(109) Sheila is happy.
(110) Paul is not intelligent.

Blakemore believes that in these cases:

> the speaker's use of *but* does not indicate that he presumes the assumptions in [(109) and (110)] to be manifest to the hearer – at least not as assumptions which she is capable of accepting as true (or probably true) – but only that they are manifest as attributed assumptions.
> (Blakemore, 2002, p. 114)

While I agree with that claim, I do not agree with Blakemore's implicit assumption that *but* therefore can't encode the information that what follows contradicts and eliminates a manifest assumption. Neither of

these examples constitutes a straightforward use of the connective: in (107) the use of *but* is attributed to Tom, and in (108) it is most likely to be ironic, and thus attributed to someone other than the speaker (or the speaker at a different time). If these examples are looked at in this way, there is no reason whatsoever to assume that *but* doesn't encode the procedure in (103): the people to whom the use of *but* is attributed in these examples would, indeed, think that the denied assumptions in (109) and (110) are likely to be manifest to the hearer.

This section has shown that the proposed analysis can account for the full range of examples in spite of initial misgivings. If *but* indicates denial, it must be the denial of a manifest assumption, rather than a communicated assumption or a merely accessible one. However, one last challenge to the proposed analysis remains, according to which *but* doesn't encode denial at all, but instead indicates that the clause it introduces cuts off an inference.

4.9.2 A challenge to the proposed analysis

Hall (2004) proposes an analysis of *but* on which it encodes the procedure in (111).

(111) Suspend an inference that would result in a contradiction with what follows.[25]

Hall maintains that an account along the lines proposed in the previous Section encounters serious difficulties and that her analysis does a better job of accounting for examples involving indirect denial and examples involving counterfactuals, such as (101). I will first examine Hall's arguments against the account I've proposed above, before moving on to the positive arguments she offers to support her own analysis.

The first worry with the 'manifestness' account that Hall mentions arises from her disagreement with Blakemore's (2000, p. 474) claim that the *but* clause often not only contradicts and eliminates an assumption that might have become manifest in the context but also the contextual assumption that leads to the denied assumption. For instance, the *but* clause in (1) might be seen as contradicting and eliminating not only the assumption that Peter went out but also the assumption that Peter doesn't go out in the rain:

(1) It was raining but Peter went out.

My intuitions align with Blakemore's here. However, Hall has a point in that there might be a more general assumption, say something along the

lines of (112), that is not denied by the *but* clause:

(112) People don't normally go out in the rain.

In fact, there is a sense in which the very use of *but* confirms this assumption. After all, if the hearer didn't think that rain is the sort of thing that stops people from going out, the assumption that Peter didn't go out could not possibly have become manifest to him on the basis of *it was raining* and there would have been no need for the speaker to utter the *but* clause. Thus, the very fact that the speaker is using *but* indicates that she thinks there is a danger that the hearer might have inferred that Peter didn't go out, quite conceivably on the basis of a general assumption like (112).

The interesting thing is that, according to Hall, her own analysis predicts that the *but* utterance always strengthens the contextual assumption that leads to the cut-off inference. In other words, if Hall is right, a *but* utterance couldn't be used to contradict and eliminate the contextual assumption that licenses the inference that is cut off by the *but* clause. This, however, is not borne out by the evidence. B's utterance in (113), for instance is perfectly acceptable. Note that the corresponding utterance containing *although* is much less so:

(113) *A* Republicans are dishonest.
B That's not right: John is a Republican but he is honest.
B′ ?That's not right: John is honest although he's a Republican.

This could be explained on the assumption that *but* indicates the denial of an assumption, while *although* indicates the cutting off of an inference. It is, however, hard to see how this difference could be explained if both connectives encode the information that an inference is to be cut off.

Hall's second objection to the proposed account of *but* is that the assumption contradicted by the *but* clause is not always completely eliminated. For example, she feels that B's utterance in (114) merely indicates that the expected conclusion doesn't follow from the assumption that John is honest. In other words, rather than making manifest that John can't be relied on, B's utterance only makes it manifest that it doesn't follow that John can be relied on:

(114) *A* Do you think we can rely on John?
B Well, he's honest, but he's a Republican, so I don't know.

B′ I don't know.
B″ ?Well, he's honest, but he's a Republican, so it could go either way.

The problem with this example is that *I don't know* itself is most likely to be interpreted as a negative. For instance, if the response in (114) were *I don't know*, on its own it's most likely that A would interpret that as meaning that John probably can't be trusted. Thus, if the conclusion is to be genuinely up in the air, a formulation such as *it could go either way* would be more appropriate. Interestingly, B″ is much less clearly acceptable than B. This casts doubt on Hall's claim that the *but* clause doesn't fully eliminate the contradicted assumption.

Hall's third objection is connected with the example in (115), first discussed by Blakemore (2002):

(115) *A* Do all the buses from this stop go to Piccadilly Gardens?
B The 85 and the 86 do, but the 84 and the 87 go to Cross Street.

According to Hall, the only assumption the *but* clause in B's utterance could be denying here is that all buses from this stop go to Piccadilly Gardens. She seems to think that this is problematic because A's question is neutral as to whether he expects this or not. However, given the relevance-theoretic account of interrogatives as indicating that the propositional content of the utterance represents a relevant proposition that resembles it (Wilson and Sperber, 1988a), it's highly likely that the assumption that all buses do go to Piccadilly Gardens is at least weakly manifest to A and that he is seeking confirmation of this assumption.

It's less clear that this is the case in (116):

(116) *A* Not all buses from this stop go to Piccadilly Gardens, do they?
B No. The 85 and the 86 do, but the 84 and the 87 go to Cross Street.

Here, it's more likely that the assumption that is manifest to A is that not all buses from this stop go to Piccadilly Gardens. However, the reason that *but* can be used here with felicitous results could well be that the first part of B's utterance is likely to make it weakly manifest that the next buses mentioned will also go to Piccadilly Gardens. After all, B's

utterance might have continued as in (117):

(117) The 85 and the 86 do, as do the 84 and the 87. The 116 and the 195 don't, though.

This would admittedly not have been an ideal utterance, but, nevertheless, one that a speaker who is thinking on the spot might have produced. This shows that the account proposed above can deal adequately with these examples. Furthermore, it's not clear that Hall's own analysis would be at an advantage here: if A isn't expecting all the buses from this stop to go to Piccadilly Gardens, what inference would the *but* clause be cutting off if not one that leads to the conclusion that the next buses mentioned also go to Piccadilly Gardens?

In fact, this highlights a general problem: it's initially rather difficult to see what substantial difference there is between Hall's account and the one I proposed in the previous Section. After all, if there's an inference to be cut off, then there is also likely to be an assumption (conclusion) that is (or would be) the result of such an inference. Since the *but* clause only occurs after the assumption that might have triggered an inappropriate inference, it's likely that the inference will have yielded an undesirable conclusion, which will have to be eliminated if the inference is cut off. In other words, it's hard to see how there could be any examples that can be explained by the 'cutting off' analysis but not by the denial one. Indeed, it seems that the 'cutting off' account entails the denial account, but not vice versa: inferences always yield assumptions (conclusions), but denial does not presuppose that the denied assumption must have been **inferred** in the context.

The final objection Hall has to the denial account is that it can't deal with correction examples. However, I have already demonstrated in Section 4.9.1 that this is not the case. Furthermore, I believe that Hall's analysis is in a worse position with regard to correction examples than my own. As shown above, it's plausible that the assumption that the woman in question is the speaker's sister is still manifest to the hearer by the time she starts processing the *but* clause in (24):

(24) That's not my sister but my mother.

Thus, the *but* clause could still be denying a manifest assumption. It is much harder to see what inference could be cut off. Presumably, the inference to be cut off would have to result in either the assumption that the woman in question is the speaker's sister or that she's not the

speaker's mother. In the first case, it's not clear that there is an inference to be cut off: the hearer is already convinced that the woman in question is the speaker's sister – there's no question of the *but* clause preventing this undesirable inference from going through. In the second case, there might be an inference, namely the one that leads from the assumption that the woman is the speaker's sister to the conclusion that she's not the speaker's mother. However, it's not at all clear that the point of the utterance in (24) is to cut off this inference. Surely, the point is to make the hearer discard her assumption that the woman is the speaker's sister.

Hall's account encounters further difficulties with examples of *but* where it is used to introduce an objection to a previous utterance. For instance, B's utterance in (35) is most simply analysed as contradicting and eliminating the manifest assumption that John is in Paris:

(35) *A* John's in Paris at the moment.
B But I've just seen him in Oxford Street.

Again, it's not really clear what inference could be being cut off, except maybe the one that leads from the assumption that John is in Paris to the assumption that he's not in Oxford Street. Again, that doesn't seem to be the point of B's utterance and Hall's analysis is left unable to account for this type of example.

4.9.3 Conclusion

In conclusion, it seems that the account of *but* proposed in Section 4.9.1 stands up to a number of objections and counter-examples and does a better job of accounting for all uses of *but* than any current alternatives. This shows that a satisfactory unitary analysis of the meaning of *but* is possible and that there is no need to assume an ambiguity or even a polysemy. Ultimately, however, the question of how many meanings *but* encodes can only be answered on the basis of empirical evidence. It's still entirely possible that people who have acquired only one meaning of *but*, namely the procedure in (103), in addition also separately store the information that *but* clauses can be used to specify a replacement for a negated constituent. Whether this is the case or not lies well beyond the scope of this book, however.

This chapter started with a discussion of so-called 'concessive' expressions and the argument that any classification of linguistic expressions into semantic types would have to be made on a 'bottom-up' basis,

starting with analyses of individual expressions and only then checking whether any interesting generalisations can be made. The rest of the chapter was devoted to the analysis of *but*. In the next two chapters I will analyse two more allegedly 'concessive' expressions so that, in the final chapter, I'll be in a position to see whether any generalisations emerge.

5
Concession and Denial: The Meaning of *although*

5.1 Differences between *but* and *although*

In the introduction to Chapter 4, I observed that (1) and (2) receive the same 'concessive' interpretation as (3):

(1) Peter went out although it was raining.
(2) Although it was raining, Peter went out.

(3) It was raining but Peter went out.

This is reflected in much of the literature, where *Q although P/Although P, Q* is treated as having a subset of the interpretations possible for *P but Q*. For instance, König (1985) describes *P but Q* as the prototypical means of expressing an 'adversative' relation, while he sees *Q although P/Although P, Q* as the prototypical 'concessive' expression, and concessives are a subcase of adversatives. According to him (1985, p. 4), concessives have the properties in (4) and adversatives have the properties in (5):

(4)	*typical form*:	although *P, Q*
	entailments:	*P, Q*
	(non-logical) implication:	Normally (if *P*, then not-*Q*)
(5)	*typical form:*	*P* but *Q*
	entailments:	*P, Q*
	(non-logical) implications:	$P \rightarrow R$, $Q \rightarrow$ not-*R*, *Q* carries more weight

He (1985, p. 6) analyses 'adversatives' in line with Anscombre and Ducrot's (1977) account of denial *but*. In other words, 'adversative' interpretations are the same as the denial interpretations of *but* discussed in

Chapter 4 and 'concessive' interpretations amount to the same as direct denial. That is, concessives are a special case of adversatives, which is reflected in their non-logical implications.

This may make it seem as though König is claiming that *but* expresses an adversative relation, while *although* expresses concessivity. However, he makes it clear that not only can *but* express a concessive relation but *although* can express adversativeness. This casts doubt on his earlier assumption that *Q although P/Although P, Q* can only be given a subset of the interpretations of *P but Q* and raises the question whether the two types of sentences in fact have the same meaning. König certainly thinks that they do as far as truth-conditional content goes – the entailments in (4) and (5) are exactly the same. Indeed, intuitions support this view: the truth of *P* and the truth of *Q* are jointly sufficient for the truth of both, *Q although P/Although P, Q* and *P but Q*. For instance, an utterance of (1) or (2), as well as an utterance of (3), seem to be true just in case Peter went out and it was raining.

Given that *but* and *although* can express the same relations and that (1), (2) and (3) seem to receive the same interpretation, it looks as though there is no difference in meaning, truth conditional or otherwise, between *Q although P/Although P, Q* and *P but Q*. Indeed, as mentioned at the end of Chapter 4, Hall's (2004) analysis of *but* is identical to the analysis of *although* that will be proposed and defended here. However, I argued in that chapter for a different analysis of *but* from her, and, although there are clearly interpretive similarities between *but* and *although*, I believe it would be a mistake to treat these two connectives along the same lines.[1] I will give some reasons for this view now.

First, there are some clear syntactic and semantic differences between *but* and *although*. Possibly, the most obvious one is that in order to achieve the same interpretation for *Q although P/Although P, Q* and *P but Q*, *but* must introduce *Q*, while *although* introduces *P*. If they both introduce the same clause, the *although* utterance receives a radically different interpretation from the *but* utterance – as (6) and (7) demonstrate:

(6) It was raining although Peter went out.[2]
(7) Although Peter went out, it was raining.

This may seem a painfully obvious point but it is, nevertheless, worth making, particularly in the light of Fraser's (1998, p. 314) insistence that (8), (9) and (10) are all equivalent:

(8) She fried the onions, but she steamed the cabbage.

(9) She fried the onions. However, she steamed the cabbage.
(10) She fried the onions, although she steamed the cabbage.

The second obvious difference between *but* and *although* is that the former is a coordinating conjunction, while the latter is a subordinating conjunction. This distinction is brought out by a number of syntactic tests. First, only subordinate clauses can be preposed. For instance, while (2) is perfectly acceptable, (11) is clearly ungrammatical:

(2) Although it was raining, Peter went out.
(11) *But Peter went out, it was raining.

Second, according to Green (1976, p. 385), negative NP preposing, as in (12), is only possible within a main clause:

(12) Not for a moment did she hesitate.

This test, too, brings out a clear difference between *but* and *although*: (13) is perfectly acceptable, while (14) is ungrammatical:

(13) The cliff was high but not for a moment did she hesitate.
(14) *Although not for a moment did she hesitate, she was quite frightened.

These tests clearly show the difference in syntactic status of *but* and *although*.[3] This observation combined with the first one (that for the same interpretation to be maintained, *although* must introduce *P* where *but* introduces *Q*) provides sufficient reason not to analyse *although* along the same lines as *but*. Even setting aside these observations, the claim that *but* and *although* are completely synonymous is untenable, for it is only in a relatively restricted subset of examples that *although* can replace *but* (obviously, once the necessary syntactic changes have been made). This is illustrated in the next section.

5.2 Interpretations of *Q although P*/*Although P, Q*

5.2.1 When can *Q although P*/*Although P, Q* and *P but Q* receive the same interpretation?

In order to bring out further differences between *but* and *although* I will look at the range of interpretations that *but* can receive, as discussed in Section 4.2, and see whether *although* can replace *but* in all cases, once

the necessary syntactic changes have been made. (1)–(3) have already shown that *although* can do duty for direct denial of expectation *but*. (15)–(17) show that this also goes for indirect denial, where *R* is *I'll go for a walk*, for instance. Here, there is an interesting difference between (16), where the subordinate clause is postposed, and (17), where it is preposed. The latter is slightly, but noticeably, more acceptable than the former. I will suggest an explanation for this in Section 5.5:

(15) It's raining but I need some fresh air.
(16) I need some fresh air although it's raining.
(17) Although it's raining, I need some fresh air.[4]

As (18)–(20) illustrate, R. Lakoff's (1971) 'semantic opposition' or Blakemore's (1987, 1989) 'contrast' can also be expressed using *although*, but this shouldn't be surprising since I argued that this use can be reduced to denial of expectation. Again, there is a slight difference in interpretation or acceptability between (19) and (20) – the former is more likely to be interpreted as involving direct denial, and the latter as involving indirect denial:

(18) John is tall but Bill is short.
(19) Bill is short although John is tall.
(20) Although John is tall, Bill is short.

As (21)–(23) show, *although* doesn't have a correction use: (22) is completely unacceptable and (23) is only acceptable on a denial of expectation reading (for instance one on which *that's not my sister* is taken to imply something like *that's not one of my relatives*, which is then denied by *that is my mother*):

(21) That's not my sister but my mother.
(22) *That is my mother although not my sister.
(23) Although not my sister, that is my mother.

It seems unlikely that *although* could replace *but* on its discourse use. Recall, that discourse *but* is analysed as introducing a new paragraph and signalling a return to the main topic of the discourse. Since *although* would actually have to introduce the preceding paragraph to parallel the examples discussed so far, and, more importantly, since *although* is a subordinating conjunction and subordinate clauses can't, as a rule, stand on their own, *although* couldn't do the job of *but* in contexts in which it receives a discourse interpretation.[5]

Finally, utterance- and discourse-initial uses of *but* can't be replaced by *although* for obvious reasons. As mentioned above, *although* actually has to introduce the first clause, rather than the *but* clause for the same interpretation to be preserved when replacing *but* with *although*. However, in utterance- and discourse-initial uses of *but* there is by definition no first clause. So, it is clear that there couldn't possibly be a case of *although* replacing *but* in utterance- and discourse-initial positions. Still, this doesn't rule out the possibility that an isolated *although* clause could occur utterance- or discourse-initially in its own right. However, this doesn't seem to be possible. Mary's utterances in (24) are no more than borderline acceptable, while those in (25) will most likely be understood as a continuation of Peter's utterance:

(24) *Mary* [catching Peter munching his way through a box of chocolates] ?Although you're on a diet./?Although you're on a diet?

(25) *Peter* I think John is wonderful.
Mary ?Although he cheated on you./Although he cheated on you?

To sum up the discussion so far, it seems that *although* can do duty for *but* only when the intended interpretation is one of denial of expectation. Furthermore, *Q although P* seems to lend itself more to the expression of direct than indirect denial. This supports my earlier claim that *although* must be given a distinct analysis, which takes into account its status as a subordinating conjunction and which explains why *although* can be used to express some of the same things as *but* but not others.

5.2.2 *Although* in three domains

Sweetser (1990) accounts for different meanings or interpretations of expressions, such as modal verbs and conjunctions, by claiming that they can operate in three different domains: **real-world** (or **content**), **epistemic** and **speech act**. The idea is that the real-world meaning of an expression can be metaphorically extended to the domains of reasoning (epistemic domain) and speech acts. She uses this to explain the diachronic fact that sensory verbs like *see* have come to have epistemic meanings (compare (26) and (27)), as well as synchronic facts about different interpretations of modals, *if … then*, and various conjunctions:

(26) I see the cat.
(27) I see the problem.

She (1990, pp. 78–9) applies this framework to what she calls 'adversative' connectives, such as *although* and *despite*, and causal connectives, such as *because* and *since* in the following way.

(1) and (28) are examples of *although* and *because* operating in the **real-world** or **content** domain. That is, the relations they express hold between states of affairs in the real world:

(1) Peter went out although it was raining.
(28) Peter got wet because it was raining.

In the case of (28) this is relatively easy to see; the relation expressed is one of real-world causality: the rain caused Peter to get wet. It's a bit harder to see in what sense the 'adversative' relation expressed by *although* in (1) holds in the real world. In order to make clearer the real-world nature of the connection in such examples Sweetser (1990, p. 79) provides a paraphrase. Analogous to her own examples, the paraphrase for (1), which is not one of the examples she considers, would be something like (29):

(29) Peter's going out occurred in spite of the rain, which might naturally have led to his not going out.

This shows that *although* doesn't actually express a real-world relationship between two states of affairs in the way *because* does. Instead, the relationship *although* expresses is one that exists in the speaker's mind and is based on her knowledge of a real-world causal relation between the state of affairs described in the subordinate clause and the negation of the main clause. In other words, the real-world relationship in (1) doesn't hold between Peter's going out and the rain, but rather between the rain and Peter's not going out. In fact, while real-world causality clearly exists, it is doubtful whether there is such a thing as real-world 'adversativeness' or 'concessivity'.

Sweetser (1990, pp. 103–4) herself speculates that there probably is no real-world use of *but*, because there is no real-world relation of contrast. Given that she is happy to accept that *although* has a real-world use, this seems quite curious, especially when we recall examples like (3) that show that *but* can perfectly well be used to express the relation expressed by *although* in (1) and (2):

(3) It was raining but Peter went out.

It seems to me that it is quite likely that there is no real-world use of *although*, at least not in the same way in which there is a real-world use of *because*.

In (30), *because* operates in what Sweetser calls the **epistemic** domain:

(30) It's been raining, because Peter is wet.

That is, rather than expressing a causal relation between two events or states of affairs in the world, it expresses a causal relationship between the speaker's knowledge that Peter is wet and the conclusion that it's raining. Similarly, *although* in (6) could be seen as operating in the epistemic domain:

(6) It was raining although Peter went out.

Sweetser's (1990, p. 79) paraphrase of this example would be something like (31):

(31) The fact that it was raining is true in spite of the fact that Peter went out, which might reasonably have led me to conclude that it wasn't raining.

Here, the epistemic relationship could be seen as holding between the fact that it was raining and the assumption that Peter went out.

Finally, (32) gives an example of *because* applying to Sweetser's speech act domain.

(32) Is it raining, because Peter looks wet.

Here, *because* expresses a causal relation between the state of affairs described in the subordinate clause and the speech act performed in the main clause. In other words, the fact that Peter looks wet is the speaker's reason for asking whether it's raining. In (33), *although* applies to the speech act domain. Sweetser's gloss for this kind of example is given in (34):

(33) Is it raining, although I'll have to go out anyway.
(34) I ask you if it's raining in spite of the fact that I have to go out anyway.

Again, the relation here could be seen as holding between the fact that the speaker has to go out and her speech act of asking whether it's

raining. It seems, then, that the question is what exactly *P* and *Q* in *Q although P* and *Although P, Q* stand for. From Sweetser's discussion one could conclude that she would advocate that *Q although P* can have (at least) three different non-logical implications, namely one of (35)–(37), where *X* is the proposition expressed by *P* and *Y* that expressed by *Q*, depending on whether *although* is understood as operating in the real-world/content, the epistemic or the speech act (SA) domain:

(35) Normally (*X* causes not-*Y*)
(36) Normally (*X* leads to the conclusion that not-*Y*)
(37) Normally (*X* causes the speaker not to SA that *Y*)

While I wouldn't want to go along with Sweetser's idea that the meaning of *although* can be analysed as being metaphorically transferable from the real-world to the epistemic and speech act domains, she points out some interesting examples of *although* utterances. Any adequate analysis of the meaning of *although* should explain not just the interpretation of standard examples involving *although*, such as (1) and (2), but also that of its 'epistemic' and 'speech act' uses. In what follows, I'll briefly look at some analyses of *although* before I introduce my own, relevance-theoretic account, which I will argue can capture Sweetser's intuitions about the different ways in which language can function without recourse to the notion of metaphoric transfer.

5.3 Traditional approaches to the meaning of *although*

5.3.1 Winter and Rimon, and Sidiropoulou

Like König (1985), Winter and Rimon (1994) don't actually propose a detailed analysis of the meaning of *although*. Instead, they are concerned with giving a semantics for what they call 'contrastive conjunctions', of which *although* is one. Nevertheless, their approach seems worth discussing, at least briefly, simply because they are among the few theorists who mention *although* at all and they have a view on the difference between (denial) *but* and *although*.

According to Winter and Rimon (1994, p. 369), *although* can only express what they call restricted contrast (which is the same as König's 'concessivity'), that is, *although* can only link *P* and *Q* if *P* implies *not-Q*. *But*, on the other hand expresses general contrast, which they capture in terms close to A & D's (Anscombre and Ducrot, 1977) account of denial *but*, where *P* implies *not-R, Q* implies *R*. This means that they

would regard (16) and (17) as unacceptable (unless they were interpreted as implying that the rain should stop the speaker from wanting fresh air). However, they admit that some native speakers find (38) acceptable when, for example, uttered by the doctor who operated on the son to the father who is concerned that the operation wasn't successful:

(16) I need some fresh air although it's raining.
(17) Although it's raining, I need some fresh air.
(38) Your son walks although he walks slowly.

In such a case *P* (*your son walks slowly*) would imply *not-R* (*the operation wasn't a success*) and *Q* (*your son walks*) would imply *R* (*the operation was a success*). I believe that Winter and Rimon may find *although* unacceptable in cases where *Q* doesn't directly deny an implication of *P* because they only consider cases of the form *Q although P*. As with (16) and (17), I find the preposed counterpart of (38) more acceptable:

(39) Although your son walks slowly, he walks.

It will be seen in Section 5.5 that this difference can be explained in terms of the order in which the clauses are processed.

On Sidiropoulou's (1992) account, set within the framework of Discourse Representation Theory, *although* is taken to have two basic interpretations. According to her, *Although P, Q* can be given either a 'Shared Implicature Concession (SIC)' reading or a 'Speaker's Attitude Concession (SAC)' reading (1992, pp. 204–6). SIC simply amounts to the same as König's 'concessive' reading, Winter and Rimon's 'restricted contrast', and what I've called 'direct denial of expectation'. SAC, on the other hand, is a variety of König's 'adversative' reading, Winter and Rimon's non-restricted contrast, and my own indirect denial. According to Sidiropoulou, SAC involves the:

> *signaling of a change in the speaker's attitude* with respect to what follows, or precedes, the *although* conjunct.
>
> (Sidiropoulou, 1992, p. 206, emphasis in original)

She, therefore, analyses *although* as indicating in these cases that the speaker either has a positive attitude to *P* and a negative attitude to *Q* or the other way round. For instance, she might analyse Winter and Rimon's example in (38) as conveying that the speaker has a negative

attitude to *P* (*your son walks slowly*) and a positive attitude to *Q* (*your son walks*). Now, while this might be plausible for this particular example, I find it difficult to see how (16) and (17) could be analysed along similar lines. It seems likely that in this case the speaker will have a negative attitude towards *P* (*it's raining*), but it's not clear that saying that the speaker has a positive attitude towards *Q* (*I need some fresh air*) either does justice to the situation or is particularly enlightening. Furthermore, this example clearly shouldn't get a SIC reading either (there is no implication that the speaker doesn't normally need fresh air when it's raining).

The upshot of this very brief discussion of Winter and Rimon (1994) and Sidiropoulou (1992) is that, apart from a proliferation of terminology, there is very little variety when it comes to analyses of the meaning of *although*. The only point on which there seems to be some disagreement is whether or not *although* can link *P* and *Q* in cases in which the incompatibility between them is not direct. Whether a theorist believes that it can or can't seems to be largely dependent on whether the examples they consider are of the form *Q although P* or *although P, Q*. Winter and Rimon predominantly consider the former and conclude that *although* must express direct (or restricted) contrast, Sidiropoulou exclusively considers the latter and concludes that *although* can express either direct or indirect contrast. However, essentially they all agree with König's (1985) analysis of *Q although P/Although P, Q*, although, of course, their accounts differ in some of the detail. None of them give a particularly satisfying account of what exactly it is that *although* encodes linguistically.

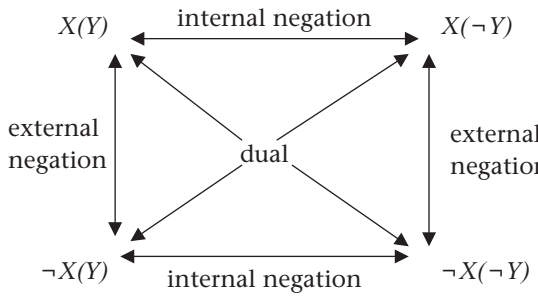
5.3.2 A duality account

While the account of *although* given by König (1986) doesn't go beyond stating that *Although P, Q* is the prototypical concessive construction, König (1989) takes a more interesting approach. In this paper, he proposes that concessive relations are the **dual** of causal relations. Let me explain what he means by this. He (1989, p. 197) follows Löbner (1987, 1990) in defining the semantic (in the sense of *truth-conditional*) relation of duality as follows.

Duality is a relation that arises when there are two possibilities for negating a proposition: internal and external. For instance, negation can apply to *all Fs are G* either externally, as in *not(all Fs are G)*, or internally, as in *all Fs are not-G*. More generally, there are three ways of combining negation with any proposition of the form *X(Y)*: *X(¬Y)*, *¬X(Y)*, and *¬X(¬Y)*. König (1989, p. 197) represents these possibilities in the

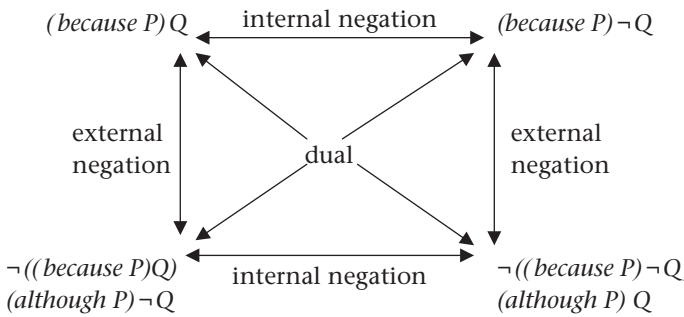
'duality square' in (40):

(40)



As this square indicates, the relation of duality holds between the positive proposition and the external negation of its internal negation. For instance, *all Fs are G* and *not(all Fs are not-G)* (=*some Fs are G*) are duals. The relevance of this here is that the relationship between *all Fs are G* and *some Fs are G* appears to be paralleled by that between *because P, Q* and *although P, Q*; that is, causal relations and 'concessive' relations are duals of each other. If this is right, then *not(because P, not-Q)* should be (at least truth-conditionally) synonymous with *although P, Q*. The duality square for *because P, Q* in (41) illustrates this:

(41)



König argues that such a close connection between causality and concessiveness is well supported by intuitions (1989, pp. 195–7). For instance, he refers to Hermodsson (1978), who proposes to reanalyse (and rename) 'concessives' as 'incausals'. This is based on an intuition close to that of Sweetser (1990) who seems to see the relation expressed by *although* as one between obstacle or impediment (the content of the *although*-clause) and a consequence one would have expected to be impeded or prevented from coming about given the truth of the

although-clause. This means that causal utterances, such as (42), and concessive utterances, such as (43), can be formed on the basis of one and the same underlying causal connection:

(42) Peter got wet because it was raining. *Q because P*
(43) Peter didn't get wet although it was raining. *not-Q although P*

König (1989, p. 196) captures these similarities in (44) and (45).

(44) (a) Since/because *P, Q*
(b) *P* & *Q* (entailment)
(c) if *P*, normally *Q* (presupposition)

(45) (a) Although/even though *P, not-Q*
(b) *P* & *Q* (entailment)
(c) if *P*, normally *Q* (presupposition)

There certainly is something plausible about this intuition. Furthermore, if there really is a relation of duality between causal and concessive connections, this would have one particular advantage. As König (1989, p. 201) points out, while merely stating that there is this relation between concessivity and causality doesn't amount to giving an account of either, it does mean that, once one has an account of causality, an account of (the truth-conditional properties of[6]) concessivity follows automatically (assuming one has an account of negation). Of course, it should also work the other way around: an account of concessivity should also yield an account of causality. However, this order of explanation is not very likely – the chances of getting a grip on causality seem much better than those of getting a grip on concessivity. Moreover, starting with an analysis of *Although P, Q* and simply analysing *Because P, Q* as *not(Although P, not-Q)* isn't an option because *although* can't fall under the scope of (external descriptive) negation. (46) quite clearly doesn't capture the meaning of (47):

(46) It is not the case that although it was raining, Peter didn't get wet. *Not (although P, not-Q)*
(47) Because it was raining, Peter got wet.

In this, the *although/because* pair differs markedly from other duals. For instance, *all Fs are G* can be captured by *not (some Fs are not-G)*.

There are a number of other problems with König's attempt at accounting for the meaning of *Although P, Q* in terms of causality and

duality. Possibly the most fundamental one is that, at best, this account only captures the meaning of *Although P, Q* in those cases where it receives a 'concessive' interpretation, that is, where there is a direct incompatibility between *P* and *Q* and it (non-logically) implies *normally (if P, then not-Q)*. In other words, it doesn't apply to 'adversative' uses of *although*, where there is no direct relation (causal or otherwise) between *P* and *Q*. In fact, it seems doubtful that such an account would even be an analysis of the meaning of *although*. At most, it seems, König's duality account offers an analysis of the concessive relation. However, I have argued in Section 4.1 that giving an analysis of a concessive relation is only interesting if it helps account for the meaning of certain linguistic expressions, such as *but* and *although*. The fact that neither *but* nor *although* always express a concessive relation indicates that defining this relation doesn't lead to a full account of the meaning of either expression. Moreover, Iten (1997, 1998a) gives a range of arguments to show that *Because P, Q* and *Although P, Q* don't in fact stand in a relation of duality to each other, even assuming that *although* is being used 'concessively'. Here, I will just reiterate the strongest argument.

This argument against König's duality account of concessives is connected with the truth conditions of *because P, Q* and *although P, Q*. It is generally accepted that, while the truth of *P* and the truth of *Q* are necessary conditions for the truth of *Because P, Q,* they are not sufficient. For an utterance such as (28) to be true, it is not enough that it was raining and that Peter got wet, but the rain must have been the cause of Peter's getting wet:

(28) Peter got wet because it was raining.

This is shown nicely by (48), where the (descriptive) negation applies just to the causal connection between the rain and Peter's getting wet:

(48) Peter didn't get wet because it was raining – it was raining, but he got wet because he fell in the pond.

The 'concessive' relation between the rain and Peter's not getting wet expressed by *although* in (43), on the other hand, is not a matter of truth conditions.[7] As mentioned in Section 5.1, all it seems to take for an utterance like this to be true is the truth of each conjunct:

(43) Peter didn't get wet although it was raining. *not-Q although P*

The unacceptable (49) shows that it is impossible to negate (descriptively) just the concessive relation.

(49) *Peter didn't not get wet although it was raining – it was raining, but Peter didn't get wet although he fell in the pond.

This difference raises some other interesting issues for König's duality account. For instance, *not(because P, Q)* and *although P*, ¬*Q* should be equivalent according to the duality square in (41). However, it is not immediately clear that they are. *Although P*, ¬*Q* is true just in case *P* is true and ¬*Q* is true. In other words, the truth of *P* and the truth of ¬*Q* are necessary and jointly sufficient conditions for the truth of *although P, Q*. It is not obvious that the same conditions are necessary and jointly sufficient for the truth of *not(because P, Q)*. Of course, they are jointly sufficient for the truth of *not(because P, Q)*. However, they are not necessary. The truth of *P* and ¬*Q* is only one of four sets of propositions that are sufficient for the truth of *not(because P, Q)*. All four possibilities are given formally in (50):

(50) (a) *P*, ¬*Q* [and, therefore, ¬*(P* causes *Q)*]
(b) ¬*P, Q* [and, therefore, ¬*(P* causes *Q)*]
(c) ¬*P*, ¬*Q* [and, therefore, ¬*(P* causes *Q)*]
(d) *P, Q*, ¬*(P* causes *Q)*

To give a concrete example, assuming that the negation is understood as taking wide scope, (51) could be true due to any of (52)(a)–(d):

(51) Peter didn't get wet because it was raining.
(52) (a) It was raining, but Peter didn't get wet (and, therefore, the rain didn't cause Peter to get wet).
(b) It wasn't raining, but Peter got wet (the rain didn't cause Peter to get wet).
(c) It wasn't raining and Peter didn't get wet (and, therefore, the rain didn't cause Peter to get wet)
(d) It was raining and Peter got wet, but it wasn't the rain that caused Peter to get wet.

In other words, for *not(because P, Q)* to mean the same as *although P, not-Q*, it has to receive a very specific interpretation. Since this interpretation is one out of four possible ones, that is, one out of four interpretations compatible with the semantics of *not(because P, Q)*, it follows that *not(because P, Q)* and *although P, not-Q* are only going to receive the same interpretation in certain circumstances. This means that their equivalence (if equivalent is what they are) is not a matter of their semantics

but it arises pragmatically. Therefore, König's conclusion that *because* and *although* are semantically duals of each other is misguided. Nevertheless, there is something interesting to be explained here, namely the fact that, at least sometimes, *not(because P, Q)* and *although P, not-Q* really do seem to receive the same or a very similar interpretation. For instance, König's examples (53) and (54) (1989, p. 196) are likely to be interpreted along similar lines:

(53) This house is no less comfortable because it dispenses with air-conditioning.
(54) This house is no less comfortable although it dispenses with air-conditioning.

I believe (and will show) that this can be explained straightforwardly once one has an adequate analysis of the encoded meaning of *although*.

Summing up, I have shown that König's claim that *because P, Q* and *although P, Q* are duals of each other – that *not(because P, not-Q)* and *although P, Q* are truth-conditionally equivalent – is not tenable. Furthermore, even if it could be shown that a relation of duality holds between causality and concessivity, such a truth-conditional account would be missing an explanation of the crucial differences in cognitive effects of the two relations. For, cognitively, *because P, Q* and *not(although P, not-Q)* are certainly not equivalent. In the next section, I propose a relevance-theoretic analysis of *although*, which gives due weight to these differences and still accounts for the fact that, sometimes, utterances such as (53) and (54) can receive very similar interpretations.

5.4 A relevance-theoretic account

5.4.1 Concept or procedure?

Given that *although* essentially seems to have only a single function (something to do with direct or indirect denial) there might be an initial temptation to try and treat it as encoding conceptual information. However, since it never contributes to the truth conditions of utterances in which it occurs, it seems unlikely that this is the case. In this section, I will use the three tests identified in Section 3.3.3 to argue that all available evidence points in the direction of *although* encoding procedural information.

Let me start with accessibility to consciousness. It seems quite clear that most native speakers of English would find it more than averagely difficult to say what *although* 'means'. Even linguists who spent a lot of time thinking about *although* generally end up saying how it is **used**

rather than what it **means**. Furthermore, *although* is probably not one of the easiest words for foreign learners of English to acquire. Of course, this does not so much amount to an argument for procedural encoding as to a vague indication to that effect. Nevertheless, it forms part of an overall circumstantial case.

The second argument involves truth evaluability. Recall that expressions that encode concepts are truth evaluable whether or not they contribute to the truth conditions of a particular utterance. For instance, although *sadly* doesn't contribute to the truth conditions of A's utterance in (55), B's reply to it is perfectly acceptable:

(55) *A* Sadly, my mother-in-law died.
B That's not true, you're not sad about her death.

By contrast, the unacceptability of B's reply in (56) shows that the contribution *although* makes to the meaning of an utterance is not truth evaluable and its meaning, therefore, not likely to be conceptual:

(56) *A* Peter went out although it was raining.
B *That's not true, he always goes out in the rain.

The final, and strongest, test concerns compositionality. While conceptual expressions freely combine with each other to form larger conceptual representations, procedural expressions don't combine with each other to form larger procedures and they can't be modified by other procedures or by concepts. For *although*, this is brought out by examples, such as (57) and (58). These show that, while other subordinating conjunctions, such as *because*, can be modified by an adverbial like *mainly*, a combination of *mainly* with *although* has ungrammatical results:

(57) Peter went to the party mainly because he wanted to see Susan.
(58) *Susan went to the party mainly although she didn't want to see Peter.

Similarly, in (59) *partly* modifies *because* with a perfectly acceptable result, while in (60) the same can't be said of an attempt to use *partly* to modify *although*:

(59) Peter went to the party partly because he wanted to see Susan and partly because he had nothing better to do.
(60) *Susan went to the party partly although she didn't want to see Peter and partly although she had a lot of work to do.

Furthermore, (61) shows that one can use descriptive negation to negate just the meaning of *because*, while (62) demonstrates that descriptive negation can't be applied just to the meaning of *although*. Obviously, where the negation is clearly metalinguistic (or echoic), *although* can be negated, as in (63):[8]

(61) Peter didn't go to the party because he wanted to see Susan but because he had nothing better to do.
(62) *Susan didn't go to the party although she didn't want to see Peter but although she had a lot of work to do.
(63) Susan didn't go to the party *although* she had a lot of work to do, but *because* of it.

Clearly, there is no syntactic reason for these differences in acceptability between (57) and (58), (59) and (60), and (61) and (62): *because* and *although* are both subordinating conjunctions. It seems, therefore, likely that this difference is due to the fact that the two conjunctions encode different types of meaning.

To sum up this section, all the available evidence points in the direction of *although* encoding a procedure rather than a concept. In Section 5.4.3, I shall present my proposal for the particular procedure that *although* encodes and test it on the data discussed earlier. Before that, however, something ought to be said about the explicit content of utterances of the form *Q although P* and *although P, Q*.

5.4.2 The proposition(s) expressed

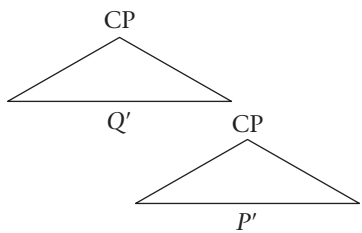
As mentioned in Section 5.1, the general consensus is that utterances of sentences of the forms in (64) and (65) are true just in case *P* is true and *Q* is true. The question is whether this amounts to the claim that these utterances express the conjunctive proposition in (66), where & stands for syntactic coordination.[9]

(64) *Q* although *P*
(65) Although *P, Q*
(66) *P* & *Q*

Obviously, if the proposition expressed were intended to capture nothing more than pure truth-conditional content, then this question would be pointless. However, recall that the proposition expressed, within the framework of Relevance Theory, is a development of a logical form

encoded by the utterance and that syntactic structure is a crucial part of what is encoded. In other words, the question is whether the logical form encoded by (64) and (65) is an *and*-conjunction. As demonstrated in Section 5.1, these sentences involve subordination while *and*-conjunctions have coordinate structure. It, therefore, seems highly doubtful that anything of the form in (66) could correspond to a logical form encoded by any utterance involving subordination. So, if the logical form encoded by (64) and (65) doesn't involve a coordinate conjunction, what is its structure? I can imagine two possibilities. First, one might opt for simple subordination, where the subordinate clause is a CP embedded under the main clause CP. In this case, the logical form encoded by (64) and (65) would be as in (67), where *Q*′ stands for the conceptually encoded content of the main clause and *P*′ for that of the subordinate clause:

(67)



For instance, a rough representation of the logical form of (1) could be given as (68):

(1) Peter went out although it was raining.
(68) $[_{CP}$X WENT OUT $[_{CP}$IT WAS RAINING$]]$[10]

Alternatively, one might want to say that (64) and (65) don't encode a single logical form at all, but, instead, that they encode the set of logical forms in (69):

(69) (a) *Q*′
(b) *P*′

There are a number of reasons why (69) seems to have the advantage in spite of the greater syntactic plausibility of (67). First, it allows one to account relatively straightforwardly for examples that involve Sweetser's speech act use of *although*, such as (33):

(33) Is it raining, although I'll have to go out anyway.

It seems clear that someone uttering this is likely to communicate the higher-level explicatures in (70), among others:

(70) (a) THE SPEAKER IS ASKING WHETHER IT'S RAINING
(b) THE SPEAKER IS SAYING THAT SHE'LL HAVE TO GO OUT ANYWAY

Now, recall that higher-level explicatures are defined as embeddings of the proposition expressed under speech act or propositional attitude descriptions. Clearly, (70)(a) and (b) are embeddings of something under speech act descriptions, and, according to the RT definition, the something they embed must be the proposition(s) expressed by the utterance. The proposition(s) expressed, in turn, must be a development of a logical form encoded by the utterance. If one assumes that *although* utterances encode two logical forms, it is easy to see how each of them can be developed into a proposition expressed and how each proposition expressed can be embedded to form its own set of higher-level explicatures, for example those in (70)(a) and (b). If, on the other hand, the assumption is that such utterances encode one single logical form comprising the conceptually encoded content of both its clauses, it is not at all clear how this could be 'developed' into two separate propositions, each of which is an embedding of only one of the clauses. However, since there is something a bit marked and unusual about speech act uses of *although,* one might be tempted to look for an alternative explanation of them and not take them very seriously as evidence for *although* utterances encoding two logical forms. I think this would be a mistake.

Even perfectly 'ordinary' *although* utterances, such as (1), present a problem for the assumption that they encode one single logical form. It seems uncontentious that a speaker uttering (1) is communicating each of (71)(a) and (b) in its own right and that she is, surely, doing so explicitly:

(71) (a) PETER$_x$ WENT OUT
(b) IT WAS RAINING

In other words, it is not just in speech act uses of *although* that each clause must come with its own set of explicatures. It seems, then, that (69) should be preferred to (67), and that *although* utterances should be seen as encoding two separate logical forms and as having two separate sets of explicatures.

However, the initial syntactic implausibility of (69) should be taken seriously too: it makes it look as though the two propositions, *P* and *Q*, are completely unrelated syntactically, which is, quite obviously, not the

case. This is brought out particularly clearly by examples of the form *although P, Q*, where the first clause may contain indexicals that are bound by constituents of the second clause. For instance, *he* and *it* in the first clause of (72) are bound by *Peter* and *the spinach* in the second:

(72) Although he_i didn't like it_j, Peter_i ate $[\text{the spinach}]_j$

(73)(b) shows that it's not easily possible for pronouns in the first of two juxtaposed sentences to be bound by constituents of the second sentence:[11]

(73) (a) Peter_i ate $[\text{the spinach}]_j$. He_i didn't like it_j.
(b) He_i ate it_j. $\text{Peter}_{*i/k}$ didn't like $[\text{the spinach}]_{*j/l}$.

These syntactic properties of utterances like (72) can be captured by (67) but not by (69). It seems, then, that neither of these two alternatives to (66) is quite ideal.

It is not clear to me how the claim that *Q although P* and *although P, Q* encode two logical forms could be adapted to capture the syntactic properties of these sentences. However, Carston (2002) offers a way of reconciling the idea that these sentences encode a single logical form, maybe along the lines of (67), with the fact that the main clause and the subordinate clause can each have their own set of explicatures. In Section 2.3.1, she considers examples such as (1) and proposes a modification of the relevance-theoretic definition of explicature to account for the undoubted intuition that, for instance, an utterance of (1) has the explicatures in (71). Her definition of explicature is given in (74):

(74) An assumption (proposition) communicated by an utterance is an 'explicature' of the utterance if and only if it is a development of (a) a linguistically encoded logical form of the utterance, or of (b) a sentential subpart of a logical form.
(Carston, 2002, p. 124)

This definition makes it possible not only to explain how (71)(a) and (b) can both be explicatures of (1), but also how (33) can have the higher-level explicatures in (70). In both of these cases, the explicatures in question aren't developments of a logical form encoded by the utterance but developments of a sentential subpart of a logical form. This raises the question of whether, in the case of *although*-conjunction, the whole logical form is ever developed to form an explicature. That is, do utterances of

the form in (64) and (65) ever communicate a proposition that is a development of the entire logical form? This is an interesting question because it seems that in the case of other subordinating conjunctions, such as *because* and *when*, this does happen. For instance, according to Carston (2002, p. 122), *because* utterances, such as (28), standardly communicate explicitly three propositions, for instance those in (75):[12]

(28) Peter got wet because it was raining.
(75) (a) PETER$_x$ GOT WET
(b) IT WAS RAINING
(c) PETER$_x$ GOT WET BECAUSE IT WAS RAINING

Similarly, an utterance containing *when*, such as (76), is best seen as communicating the three propositions in (77):

(76) It was raining when Peter went out.
(77) (a) IT WAS RAINING
(b) PETER$_x$ WENT OUT
(c) IT WAS RAINING WHEN PETER$_x$ WENT OUT

It seems clear that, in both these cases, the (c) proposition must be communicated because both *because* and *when* actually contribute to the truth conditions of the utterances in which they occur. However, if truth conditionality is the criterion, then one would expect there not to be a (c) proposition for *although* utterances. Indeed, it is hard to see, as I have shown in the previous subsection, what conceptual constituent *although* could contribute to such a proposition. Although there isn't anything inherently wrong with the idea that *although* utterances encode a single logical form, but never communicate a proposition that is a development of the whole of this logical form, there is something slightly strange about it. I believe that there may be a way of avoiding this 'strangeness'.

In fact, it seems highly likely that utterances of the form *Q although P* or *Although P, Q* don't only communicate propositions that are developments of sentential subparts of the logical forms they encode, but that they also communicate propositions developed from the entire logical forms. For instance, contrary to the claim in Section 5.1 that the truth of *P* and the truth of *Q* guarantee the truth of *Q although P*, it seems highly likely that (1) not only expresses the propositions in (71) but also one along the lines of (78):

(78) PETER WENT OUT WHILE IT WAS RAINING

Embedding an *although* utterance in the scope of an operator (recall discussion of the scope test in Section 3.5) suggests that it is a proposition along these lines that determines the truth conditions of an utterance of (1). Surely, a speaker uttering (79) isn't conveying that the reason Peter got wet is that he went out **and** that it was raining, but, crucially, that Peter went out **while** it was raining:

(79) Because Peter went out although it was raining he got wet.

Now, one might take this to indicate that *although* actually encodes WHILE plus something else. However, this is clearly not tenable. For instance, rather than expressing a proposition that contains WHILE, it seems likely that an utterance of (80) would express one like (81), which contains BEFORE:

(80) Peter got drunk although he had to give a lecture.
(81) PETER_x GOT DRUNK BEFORE PETER_x HAD TO GIVE A LECTURE

Similarly, (82) seems likely to express a proposition containing AFTER, along the lines in (83):

(82) Peter went out although Mary told him not to.
(83) PETER WENT OUT AFTER MARY TOLD PETER NOT TO GO OUT

In other words, it's unlikely that *although* encodes anything like 'conceptual subordinating conjunction plus something else' – the evidence presented in the last section speaks against that quite strongly already. Instead, it is possible that its syntactic function as a subordinating conjunction makes available a slot in the logical form which is then pragmatically filled by a subordinating concept. Which concept this will be is determined both by the context, and, indirectly, by the procedure encoded by *although*, which, at the very least, must rule out a BECAUSE enrichment.

5.4.3 What procedure does *although* encode?

I mentioned in Chapter 4 that Hall's (2004) analysis of *but* amounts to the same as the analysis of *although* which I gave in Iten (2000b) and a slightly modified version of which will also be defended here. I have given some arguments against both her specific analysis of *but* (see Section 4.9.2) and the general assumption that *but* and *although* can be analysed along similar lines (see Section 5.2.1). It is now time to

introduce my analysis of *although*. This is based on the observation that, rather than indicating denial (that is, contradiction and elimination), the use of *although* seems to prevent an inference from going through that would end up contradicting an aspect of the interpretation of the main clause. I therefore suggest that *although*, in utterances of the form *Q although P/although P, Q*, encodes a procedure along the lines in (84):

(84) Suspend an inference from what follows (that is, *P*) to a conclusion that would have to be eliminated.

Understood like this, *although* functions rather like a road sign warning of a cul-de-sac: it warns the hearer of a possible inferential dead end. Its doing so has the side effect of making manifest (or more manifest) the assumption which, in combination with *P*, would give rise to the conclusion that would need to be eliminated. Note that, in Sweetser's terms, this is a fundamentally epistemic analysis of *although*: the connective indicates the suspension of an **inference**, not a real-world causal relation.[13] It will be seen below that this means that the same account applies to examples involving Sweetser's real-world domain and those involving her epistemic domain. Since it is doubtful that *although* has a real-world application at all (see Section 5.2.2), I believe that this is an advantage of my analysis.

Let me now demonstrate how this analysis applies to the range of examples introduced above:

(1) Peter went out although it was raining.

In (1) the hearer first processes *Q* (*Peter went out*), then *although* indicates that there is an inference from *P* (*it was raining*) that has to be suspended because it would yield a conclusion that would have to be discarded. In this particular example, it is quite conceivable that *P* (*it was raining*) gives immediate access to the assumption that people don't go out if it's raining. This assumption licenses an inference from IT WAS RAINING to PETER$_x$ DIDN'T GO OUT, which would obviously contradict the basic explicature of *Q* (PETER$_x$ WENT OUT). Since the contradicted assumption is clearly communicated by the speaker's utterance of *Q*, the inferred conclusion would have to be eliminated. In other words, the use of *although* saves the hearer the effort of inferring a conclusion that would have to be discarded again immediately because it contradicts a more manifest assumption. As a side-effect, the use of *although* indicates that the speaker recognises the contextual assumption that licenses the inference

with the undesirable result, and this may make that contextual assumption manifest or more manifest.

In cases where the form of the utterance is *Q although P* rather than *Although P, Q*, the most easily accessible candidate for potentially eliminating an inferred conclusion is one of the assumptions that have just been communicated, that is, one of the explicatures or implicatures of *Q*. As will be seen in Section 5.5, things are slightly different for utterances of the form *Although P, Q*. It will be seen in Section 5.6 that the procedure in (84) can explain when and why *although* utterances can be used to express something similar to the corresponding *but* utterances. I will, in that Section, also produce further evidence against treating *but* and *although* as encoding the same procedure.

I have already demonstrated above that the proposed procedure can account for what König calls 'concessive' uses of *although* and for cases where *although* operates in Sweetser's real-world or content domain. In (6), repeated here, *although* applies to Sweetser's epistemic domain, but it is still 'concessive', that is, intuitively, *although* seems to indicate that *P* gives one reason to conclude *not-Q*:

(6) It was raining although Peter went out.

The procedure in (84) accounts for this type of example without any problems. *Although* indicates that the hearer is to suspend an inference from *P* (*Peter went out*) to a conclusion that would need to be eliminated. In most cases where *Q* precedes *although P*, the most accessible assumption that could result in the elimination of the inferred conclusion is the proposition expressed by *Q* (IT WAS RAINING). This means that the most accessible inference to be suspended is the one that leads from PETER$_x$ WENT OUT to IT WASN'T RAINING. Of course, there is only a point in using *although* if there is some danger that this inference might go through. In other words, for the use of *although* to be appropriate, there must be a contextual assumption licensing the suspended inference. This contextual assumption must be one that involves the possibility of concluding that it isn't raining from the fact that Peter is going out – maybe because he is the kind of person who hates the rain so much that he avoids it at all cost. The problem with this assumption is that it is less generally manifest than the assumption that people don't go out if it's raining, because it involves more idiosyncratic information about Peter. Furthermore, the fact that it is raining can be the cause of somebody's not going out, while somebody's going out is most decidedly not a possible cause of there being no rain. In other words, out of context, (1) is

easier to process than (6) because the assumption that licenses the suspended inference is more readily accessible in the case of (1). Of course, for people who know Peter very well and maybe often joke about his dislike of rain (6) may well be as easy to process as (1).

In the case of an utterance of (33), where *although* applies to the speech act domain in Sweetser's view, the suspended inference is from *P* (*I'll have to go out anyway*) to the negation of a higher-level explicature of *Q* (THE SPEAKER WOULD NOT LIKE TO KNOW WHETHER IT IS RAINING):

(33) Is it raining, although I'll have to go out anyway.

This inference is licensed by assumptions such as PEOPLE WHO HAVE TO GO OUTSIDE WHATEVER THE WEATHER DON'T WANT TO KNOW WHAT THE WEATHER IS LIKE. This shows how the procedure in (84) can explain 'concessive' uses of *although* quite easily.

'Adversative' uses of *although*, such as (16) and (17), can be explained along the following lines:

(16) I need some fresh air although it's raining.
(17) Although it's raining, I need some fresh air.

Again, *although* indicates that the hearer is to suspend an inference from *P* (*it's raining*) to a conclusion that would have to be eliminated. Here, the most likely candidate for the communicated assumption that would eliminate the inferred conclusion isn't the proposition expressed by *Q* (THE SPEAKER NEEDS SOME FRESH AIR) or a higher-level explicature (for instance, THE SPEAKER IS SAYING THAT SHE NEEDS SOME FRESH AIR), but an implicature of *Q* (say, THE SPEAKER WANTS TO GO FOR A WALK). The inference from IT'S RAINING to THE SPEAKER DOESN'T WANT TO GO FOR A WALK is licensed by a relatively easily accessible and generally accepted assumption, such as PEOPLE DON'T NORMALLY WANT TO GO FOR A WALK IN THE RAIN.

I have now shown that the procedure in (84), not only makes it possible to account for the whole range of examples involving *although*, but can also explain why, at least taken out of context, some *although* utterances are easier to process, and therefore more likely to be judged acceptable, than others.

In Section 5.3.2 I promised to show later that an adequate analysis of *although* is able to explain the fact that König's examples (53) and (54) seem to receive the same interpretation. This is the point at which I should make good my promise.

(53) This house is no less comfortable because it dispenses with air-conditioning. *Not(Q because P)*
(54) This house is no less comfortable although it dispenses with air-conditioning. *Not-Q although P*

Let me start with (54). As above, *although* indicates that the hearer is to suspend an inference from *P*, here *this house dispenses with air-conditioning*, that leads to a conclusion that would have to be eliminated. In this case, it is plausible that the proposition expressed by *not-Q*, HOUSE$_x$ IS NOT LESS COMFORTABLE, is the assumption that would lead to the elimination of the inferred conclusion and that a contextual assumption along the lines of (85) would have licensed the suspended inference:

(85) IF HOUSE$_x$ DISPENSES WITH AIR-CONDITIONING, HOUSE$_x$ IS LESS COMFORTABLE

Surely, it's conceivable that what lies behind the assumption in (85) is a belief that a house's lack of air-conditioning **causes** it to be less comfortable. Now, (53) can be paraphrased as (86):

(86) It is not the case that the fact that this house dispenses with air-conditioning causes it to be less comfortable.

On the interpretation here at issue, someone uttering (53) is saying that, in this particular case, the house's lack of air-conditioning doesn't cause it to be less comfortable. It seems, then, that both (53) and (54) involve the suspension of a potential move from cause to consequence, that is, from the house's lack of air-conditioning to its being less comfortable. A speaker of (53) asserts that this move doesn't take place in the real world, while a speaker of (54) uses *although* to indicate that the corresponding inference is to be suspended in the hearer's mind.

5.5 *Q although P* vs. *Although P, Q*

Near the beginning of this chapter, I noted that, particularly when it comes to 'adversative' uses of *although*, there seems to be a difference in acceptability or ease of processing between utterances of the form in (64) and those of the form in (65):

(64) *Q* although *P*
(65) Although *P, Q*

In particular, I observed that there was a tendency to prefer (17) to (16) and (20) to (19) if the intended interpretation corresponds roughly to indirect denial:

(16) I need some fresh air although it's raining.
(17) Although it's raining, I need some fresh air.

(19) Bill is short although John is tall.
(20) Although John is tall, Bill is short.

I believe that this difference can be explained in processing terms. It follows from the procedure in (84) that a hearer needs access to two assumptions in order to find an *although* utterance acceptable, that is, to be able to process it smoothly along the lines indicated by *although*:

(i) the assumption that would license the suspended inference; and
(ii) the assumption that would force the elimination of the inferred conclusion.

This is necessary because the hearer needs to know which inference from *P* the speaker intends him to suspend. Of course, accessing (i) should make it easier to access (ii), and vice versa. It is precisely in the order in which (i) and (ii) are likely to be accessed that utterances of the form in (64) are different from those of the form in (65): *P* provides the starting point for the suspended inference, while *Q* communicates the assumption that would eliminate the conclusion of the suspended inference. Depending on which clause is presented first, the hearer will first access a candidate 'eliminator' assumption (in examples of the form *Q although P*) or a candidate for the suspended inference (in examples of the form *Although P, Q*). One would expect differences in acceptability and/or ease of processing in those cases where the clause presented first gives access to the 'wrong' candidate first.

In the standard 'concessive' examples, such as (1) and (2), even though the utterances are processed differently, given the different order of the clauses, there is no noticeable difference in the processing effort that is required. In the case of (1), the first clause expresses a proposition (PETER$_x$ WENT OUT) that is an easily accessible candidate for the 'eliminator' assumption. In (2), the proposition expressed by the first clause (IT WAS RAINING) makes easily accessible a contextual assumption that licenses the suspended inference (namely, PEOPLE DON'T NORMALLY GO OUT WHEN IT'S RAINING). Therefore, there is no difference in acceptability

between (1) and (2):

(1) Peter went out although it was raining.
(2) Although it was raining, Peter went out.

However, when it comes to 'adversative' examples, where the suspended inference is from *P* to the negation of an implicature of *Q*, the difference in processing paths leads to a difference in processing effort. I believe that this is because *Q* makes easily accessible a candidate eliminator assumption that is not the one intended by the speaker. Consider, for instance, (16) and (17):

(16) I need some fresh air although it's raining.
(17) Although it's raining, I need some fresh air.

In line with Winter and Rimon's (1994) intuitions about their examples ((38) and (39)), I find (17) more acceptable (or at least easier to process) than (16). The most likely interpretation of these utterances involves suspending the inference from *P* (*it's raining*) to the negation of the implicature of *Q* given in (87). The assumption that combines with *P* to license this inference might be something like (88):

(87) SPEAKER$_x$ WANTS TO GO FOR A WALK *implicature of Q*
(88) IF IT'S RAINING, X DOES NOT WANT TO GO FOR A WALK

An utterance of (16) or (17) is most likely to be given this kind of interpretation in a scenario in which speaker and hearer are discussing whether or not to go for a walk. In such a scenario, a hearer of (17) is very likely to form the correct hypothesis as to which inference he is to suspend straightaway and he will have no problems at all in processing the utterance along the lines intended by the speaker. Hence, its undoubted acceptability.

Things are not quite as simple for a hearer of (16), who processes *Q* first. Such a hearer is quite likely to derive the implicature in (87) in the scenario described and, therefore, should have no problems in realising which inference he is to suspend. Nevertheless, because he will just have processed the encoded meaning of *Q* (*I need some fresh air*), the proposition expressed by this clause will be highly accessible and it cannot be ruled out that he will consider first the hypothesis that this is the potential eliminator assumption. In other words, the hearer may well first access an assumption which would license the inference from *P* (*it's raining*) to

the negation of the proposition expressed by *Q*, that is, the assumption IF IT IS RAINING, X DOESN'T NEED FRESH AIR. Of course, this assumption is not plausible and the hearer will immediately dismiss it. However, his accessing it at all means that (16) involves more processing effort than (17). Indeed, it could be that the very fact that (16) leads the hearer to consider an implausible assumption makes him judge the utterance unacceptable.

5.6 *But* vs. *although* revisited

In the first two sections of this chapter, I discussed some of the similarities and differences between *but* and *although*. Now that I've proposed procedural analyses of both, it should be possible to explain these similarities and differences in terms of those procedures. The procedure encoded by *but* is given in (89), that encoded by *although* in (84), repeated below:

(89) What follows (that is, *Q*) denies a manifest assumption.
(84) Suspend an inference from what follows (that is, *P)* to a conclusion that would have to be eliminated.

Both of these procedures can apply in cases where *P* implies *not-Q*: the *but* procedure applies because in such a case *Q* denies *not-Q*; the *although* procedure applies because the inference from *P* to *not-Q* has to be suspended in order to avoid having to eliminate *not-Q*. Similarly, in cases where *P* implies *not-R* and *Q* implies *R* both procedures can apply: the *but* procedure because *Q* indirectly denies *not-R*, which has been made manifest by *P*; the *although* procedure because the inference from *P* to *not-R* must be suspended to avoid having to eliminate *not-R* because of the manifestness of *R*.

These two procedures can also explain why *but* can give rise to many more interpretations than *although*. The procedure *but* encodes is much simpler and more general than that encoded by *although*. In particular, it is now possible to explain why *although* can't occur discourse initially. One possible reason for this is explored by Rouchota (1998b, p. 47), who stresses that subordinate clauses quite generally have to be embedded in main clauses and, therefore, can't occur in isolation. No doubt, this observation is correct. However, the *although* procedure suggested in this chapter also rules this out, at least for discourse-initial isolated *although* clauses. Recall that *although* indicates that an inference from the clause it introduces has to be suspended because it would lead to a conclusion

that would have to be eliminated. This can only arise where at least one other assumption is manifest enough to warrant the elimination. In general, a speaker can only be sure of this if she's communicated such an assumption. This also explains why utterance-initial occurrences of isolated *although* clauses, such as Mary's utterance in (25), are only acceptable when the 'eliminator' assumption is strongly manifest to the speaker uttering the *although* clause:

(25) *Peter* I think John is wonderful.
Mary Although he cheated on you./Although he cheated on you?

Since this is not likely to be the case with Mary in (25) – after all, she's reminding Peter of the fact that John cheated on him – her utterance is at best acceptable if taken ironically or as a question. As before, *although* indicates that the hearer is to suspend an inference from JOHN$_y$ CHEATED ON PETER$_x$ because it leads to a conclusion that would have to be eliminated. The most likely assumption forcing the elimination is the proposition expressed by Peter's utterance and the contextual assumption licensing the suspended inference is likely to be something like IF X CHEATS ON Y, X IS NOT WONDERFUL. However, Mary isn't likely to believe that John is wonderful. So, the conclusion that John isn't wonderful wouldn't have to be eliminated from Mary's set of assumptions and it isn't up to her to indicate that the inference should be suspended. All she can do, and what I believe she does do by uttering the *although* clause ironically or questioningly, is to attribute the suspension of this inference to Peter. In this way, she can point out that there is an inference that has to be suspended, if one is to believe both that John is wonderful and that John cheated on Peter. If Mary wanted to object to Peter's thinking that John is wonderful more forcefully, she should have uttered (90), where what she is denying is most likely to be the assumption that John is wonderful:

(90) But he cheated on you!

The final set of examples I want to consider come from R. Lakoff (1971, p. 137). She correctly observes that an utterance of (91) is perfectly acceptable, while neither (92)(a) nor (b) can be uttered felicitously:

(91) John would be a doctor today, but he failed chemistry.
(92) (a) *Although John would be a doctor today, he failed chemistry.
(b) *John failed chemistry although he would be a doctor today.

R. Lakoff doesn't give an explanation of these differences, but simply states that the use of *but* involved doesn't seem to be either straightforward denial of expectation or 'semantic opposition'. I would argue that what's going on here is that the *but* clause in (91) (indirectly) denies the weakly manifest assumption that John is a doctor today. The *although* examples are unacceptable because, to parallel the *but* utterance, the suspended inference would have to go from *P* (*John would be a doctor today*) to the negation of a strongly manifest assumption – most probably (and accessibly) the proposition expressed by *Q* (JOHN$_X$ FAILED CHEMISTRY). However, the only contextual assumption that could license this inference is the completely implausible (93):

(93) IF X WOULD BE A DOCTOR TODAY X DIDN'T FAIL CHEMISTRY.

In this chapter, I hope to have shown that a procedural account of the meaning of *although*, on which account it is seen as indicating that an inference has to be suspended because it would result in a conclusion that would have to be eliminated, is not only descriptively adequate, but also goes a long way towards explaining why some *although* utterances are judged more acceptable than others. I also believe I have made a good case against treating *but* and *although* as encoding identical procedures, and that my account provides the basis for an explanation of when an *although* utterance can be used to achieve an interpretation similar to a corresponding *but* utterance, and when it cannot.

6
Even and *even if*

6.1 Concessive conditionals

At the beginning of Chapter 4, I observed that, given the right context, an *even-if* utterance, such as (1) or (2), can receive an interpretation similar to that of the *but* utterance in (3) or the *although* utterances in (4) and (5):

(1) Even if it's raining, Peter will go out.
(2) Peter will go out, even if it's raining.

(3) It was raining but Peter went out.

(4) Although it was raining, Peter went out.
(5) Peter went out although it was raining.

König (1986) refers to such *even-if* conditionals as **concessive** (or 'irrelevance') **conditionals**. According to him (1986, p. 234), concessive conditionals of the form *Q, even if P* or *even if P, Q*[1] entail *Q* and conventionally imply *if P, then normally not-Q*. At a first glance, this seems roughly right. An utterance of (1) does indeed seem to communicate that Peter will go out and that Peter wouldn't normally go out in the rain.[2] Similarly, if Mary utters (6) to Peter, he will, no doubt, take her to be communicating that she won't marry him, and there is a suggestion that a woman might be expected to marry the last man on earth:

(6) Even if you were the last man on earth, I wouldn't marry you.

In this, there is a marked difference between *even-if* conditionals and 'ordinary' conditionals, such as (7) or (8):

(7) If it's raining, Peter will go out.
(8) Peter will go out if it's raining.

Quite clearly, someone uttering (7) or (8) will not be taken to communicate either that Peter will go out or that, if it's raining, Peter normally wouldn't go out. On the contrary, a speaker might well utter either of the above on the basis of her assumption that Peter normally goes out in the rain.

In König's view, concessive conditionals share some properties with both concessives and conditionals. Recall, that, according to him, concessives of the form *P but Q* or *although P, Q*/*Q although P* entail both *P* and *Q* and conventionally (but non-logically) implicate *if P, then normally not-Q*. Conditionals of the form *if P, then Q*, on the other hand, entail neither *P* nor *Q*. In other words, concessive conditionals are similar to concessives in that they entail *Q* and carry the same conventional implicature, while they are similar to ordinary conditionals in that they don't entail *P*. Since König believes that concessive conditionals **entail** their consequents, he must believe that *even* affects their truth conditions. It will be seen below that there is some disagreement in the literature as to whether this is actually the case. However, given the doubts expressed in earlier chapters about how useful the notion of truth conditions is in accounting for linguistic meaning and communication, I will not discuss this question further. Instead, I will concentrate on the linguistically encoded meaning of *even* and its effects on the interpretation of utterances containing it. As far as that is concerned, it is generally agreed that the addition of *even* to a conditional can have a dramatic effect on what is communicated. The question is what best explains this difference between *even-if* conditionals and 'bare' conditionals.

Possibly the simplest (and the most attractive) hypothesis is that the difference is entirely down to the meaning of *even* and how it interacts with the conditional. In other words, the meaning of an *even-if* conditional is the compositional[3] result of the meanings of its constituents, including *even* and *if*. This is the kind of approach taken by most theorists who have concerned themselves with *even-if*, such as Bennett (1982), Lycan (1991, 2001) and Barker (1991, 1994). Of course, there are exceptions to this rule. For instance, Pollock (1976) lists (subjunctive) *even-if* conditionals as a separate class of conditionals and seems to treat *even-if* as an 'idiomatic lump', to use Bennett's (1982, p. 414) expression.

The 'compositionality' hypothesis is supported by the fact that not all *even-if* conditionals fulfil König's criteria for concessive conditionals. There are a number of different ways in which *even* can interact with conditionals depending on the focus of *even*.[4] For instance, compare Bennett's (1982, p. 410) example in (9) with my own (6):

(9) Even if he drank **just a little** his boss would fire him.
(6) Even if you were the last man on earth, I wouldn't marry you.

As uttered, for instance, by Jill about John's incredibly puritanical and intolerant boss, Sue, (9) neither entails nor implies its consequent (not even weakly) – Jill will not be taken to communicate by her utterance of (9) that Sue will fire John. Bennett explains this difference in implications as being a matter of the focus of *even*: According to him, in (9), the focus of *even* is *just a little*, while, in (6), it is the whole antecedent, including *if*.[5] Bennett's account of *even* and *even if* will be discussed in more detail shortly.

Because concessive *even-if* conditionals are most likely to be the result of an interaction between *even* and *if*, I will not simply consider *even-if* conditionals in this chapter, but will also look at a range of accounts of the meaning of *even* and investigate how they explain its function in conditional sentences. Needless to say, the 'compositionality' assumption means that, for a complete account of the meaning of *even-if* conditionals, what is needed is not just an account of the meaning of *even* but also an account of the meaning of *if*. To do that satisfactorily would require a book-length treatment in itself. However, Lycan (1991) and Barker (1991, 1994) do give accounts of the meaning of *if* as well as *even* and I will briefly discuss these. For my own account, I will assume a more or less intuitive analysis of the conditional and indicate how *even* could interact with it, but my analysis of *even* is in fact compatible with any account of the meaning of conditionals.

In what follows, I will begin by presenting a number of philosophical accounts of *even* and *even if*, starting with Bennett's (1982) account, to which the majority of others whose accounts will be discussed have reacted in some fashion.[6] Before going on to look at these other analyses, I will give a general overview of the issues on which most theorists agree and those on which they disagree. I will divide the accounts under consideration into three groups: 'universal', 'existential' and 'scalar', and will end with a relevance-theoretic version of the scalar approach. I will conclude the chapter with a summary of the ideas in Chapters 4 to 6 and some observations concerning generalisations that may be

made about procedural meaning on the basis of the procedural accounts of *but, although* and *even* proposed in these chapters.

6.2 A starting point: Bennett's (1982) analysis[7]

Bennett (1982) gives an account of the meaning of *even* in terms of felicity conditions. In other words, he believes that *even* doesn't make a difference to truth conditions:

(10) Even **Max** tried on the trousers.
(11) Max tried on the trousers.

According to him (1982, pp. 404–5), a sentence like (10) can be uttered felicitously just in case Max tried on the trousers, someone else tried on the trousers too, and it is more surprising that Max tried on the trousers than that the other person did. In order to capture these conditions slightly more formally, Bennett introduces the following terminology. Assuming that *S* is a sentence containing *even*, *S** is *S* without *even*, while the S_js are 'neighbour' sentences of *S*, that is, sentences which differ from *S** only in the element that is the focus of *even*.[8] For an *S* like (10), where *Max* is the focus of *even*, *S** is (11) and some possible neighbour sentences, S_js, are as follows:

S_js: Fritz tried on the trousers.
Moritz tried on the trousers.[9]

Bennett (1982, pp. 405–6) now claims that an utterance of *S* will be felicitous if and only if *S** is true and there is a neighbour S_j such that:

(i) S_j is true, and mutually believed by speaker and hearer, and salient for them (e.g. it has just been authoritatively asserted);
(ii) the truth of *S** and that of S_j can naturally be seen as parts of a single more general truth;
(iii) it is more surprising that *S** is true than that S_j is true.

Leaving aside any worries about the vagueness of the requirement that the two sentences be part of the same 'single more general truth', and the strictness of the requirement that both speaker and hearer must believe the relevant neighbour sentence, these conditions seem to capture intuitions about the use of *even* rather well.

Although Bennett does not believe that there is a truth-conditional difference between *if P, Q* and *even if P, Q,* he acknowledges that some

even-if utterances, such as (6), strongly imply their consequents. At the same time, he maintains that others, for instance (9), don't:

(6) Even if you were the last man on earth, I wouldn't marry you.
(9) Even if he drank **just a little** his boss would fire him.

As hinted at above, he explains the difference between such examples in terms of the focus of *even* and, consequently, a difference in neighbour sentences.

It seems reasonable to assume that in (9) *just a little* is the focus of *even* and that a reasonably likely S_j for this example would be something like *If he drank a lot his boss would fire him*. The case of (6) is slightly more complicated. Intuitively, the focus of *even* seems to be the antecedent (*you are the last man on earth*) and possible S_js are *If you weren't the last man on earth I wouldn't marry you*, or maybe *If I were in love with someone else I wouldn't marry you*. If this is right, then an utterance of (6) would imply that (at least) one of these S_js is true and more likely than *If you were the last man on earth, I wouldn't marry you*. On its own, this doesn't explain why an utterance of (6) is taken to imply that the speaker won't marry the hearer. It will be seen later that it can explain this fact, once some extra assumptions have been added. However, Bennett (1982, p. 411) opts for an entirely different explanation.

He claims that, in cases like this, the whole of the antecedent, including *if* is the focus of *even* and that S_j isn't conditional at all. Instead, he maintains that S_j in the case of (6) is *I won't marry you*. The advantage of this account is that it captures the fact that one feels that an utterance of (6) strongly implies that the speaker won't marry the hearer: the truth of S_j (*I won't marry you*) is necessary for a felicitous utterance of (6). The disadvantage of this account is that it is counterintuitive. I will discuss this in greater detail in the next section and in Section 6.4.4.

It might at first seem mysterious why Bennett claims that in examples like (6) the whole of the antecedent **including** *if* is in the focus of *even*. However, his motivation for this becomes clearer if one compares (6) with an example like (12). Intuitively, the focus of *even* here is the antecedent (*his wife smoked*) too. However, there is a potential difference in interpretation between (12) and (6):

(12) Even if his wife smoked, his boss would fire him.

Imagine (12) being uttered in the same scenario as (9), that is, one in which John's boss is so puritanical that she not only won't tolerate any

'libertine' behaviour on the part of her employees but her intolerance extends to her employees' friends and family. Uttered in such a scenario, Bennett (1982, p. 410) argues (12) doesn't imply its consequent. However, it is quite clear that the focus of *even* must be the whole antecedent (*his wife smoked*) and that *If he drank just a little his boss would fire him* is a possible S_j. Now, since all that is needed for a felicitous utterance of (12) is the truth of *S** (*his boss would fire him if his wife smoked*) and the truth of a conditional S_j (such as *if he drank just a little, his boss would fire him*), there is no reason to assume that it implies *his boss will fire him*. Thus, on Bennett's account, it is the difference in focus between (6) and (12) with its resulting difference in S_js that explains why the former implies its consequent while the latter doesn't. In the case of (6), the focus is on the antecedent including *if*, and the S_j is non-conditional. In the case of (12), the focus is on the antecedent without *if* and the S_j is conditional. Neat though it is, I will argue in Section 6.4.4 that this explanation isn't viable.

6.3 Points of agreement and points of contention

There seems to be general agreement in the (philosophical) literature that Bennett's account captures the necessary conditions (or something approaching them) for the felicitous use of *even* (where truth conditions are understood as a subset of felicity conditions). More precisely, most theorists agree that an utterance of (10) not only implies (and actually entails) that Max tried on the trousers, but also that someone else tried on the trousers and that that person's trying on the trousers is more (or less) *p* than Max's doing so, where *p* might be *likely* or *expected*, for instance. In other words, there is widespread agreement that (the use of) *even* involves existential quantification (*there is an x ≠ Max such that x tried on the trousers*) and scalarity ('*Max tried on the trousers* is more *p* than *Moritz tried on the trousers*'). However, there are a number of points on which the different accounts diverge.

First, a number of theorists (such as Lycan and Barker) believe that *even* doesn't just involve existential quantification but universal. According to them (10) doesn't just imply that **someone** other than Max tried on the trousers but that **everyone** (in a certain group) did. Second, there are differing opinions on what property *p S** possesses more of than S_j and how many S_js it is that *S** is more *p* than. Finally, some theorists, such as Fauconnier (1975) and Kay (1991), believe that it is the notion of scales that is of central importance in accounting for the meaning of *even*. I'll term accounts that require no more than the

existence of a single S_j **'existential'**, those that see a central place for universal quantification **'universal'**, and those that rely heavily on the notion of scales **'scalar'**. For instance, Bennett proposes an existential account: for him it's enough that one S_j be true and less surprising than *S**. I'll consider some of the alternatives below.

There is further disagreement when it comes to the question of how the meaning of *even* combines with the conditional. As just seen, Bennett believes that, at least in certain cases, there is only one S_j for *even-if* conditionals, namely the consequent. This means that his treatment of *even* in such conditionals isn't entirely parallel to his treatment of *even* in other cases. For example, in the case of (10), comparing the surprisingness of *S** (*Max tried on the trousers*) with that of S_j (say, *Moritz tried on the trousers*) is straightforward: Max was less likely than Moritz to try on the trousers and so Max's trying them on is more surprising than Moritz's. In (6), on the other hand, comparing the surprisingness of *S** (*If you were the last man on earth, I wouldn't marry you*) with that of S_j (*I won't marry you*) isn't very straightforward at all. It will be seen in Section 6.4.4 that Lycan takes up this point. For (6) to receive the same treatment as (10), S_j should be something like *If you weren't the last man on earth, I wouldn't marry you* or *If I were in love with someone else, I wouldn't marry you*. Then, *S** would be more surprising than S_j because the likelihood of the speaker not marrying the hearer in the circumstance that the hearer is the last man on earth is smaller than that of her not marrying him in the other circumstances.

In what follows, I will start by looking at accounts that treat *even* in terms of universal quantification, before considering a second existential account. I will then give a summary of problematic cases before introducing two scalar accounts. In the final part of the chapter, I will argue for my own relevance-theoretic scalar analysis.

6.4 Universal accounts

6.4.1 Lycan's first account

Lycan (1991) bases his analysis of the meaning of *even-if* conditionals on his account of ordinary conditionals and on an intuitively correct paraphrase of sentences of the form *Q, even if P*. According to him (1991, p. 125), bare conditionals of the form *if P, then Q* should be analysed as 'in any relevant event that is a "real" possibility relative to this occasion and in which *P, Q*'. More formally he renders this as (13):

(13) $(e \in R)\ (\mathrm{In}(e, P) \supset \mathrm{In}(e, Q))$

This means that conditionals crucially involve universal quantification. For instance (7) would be analysed as 'in any relevant event that is a "real" possibility relative to this occasion and in which it's raining, Peter will go out':

(7) If it's raining, Peter will go out.

Lycan (1991, p. 126) then stresses that the meaning of *even* in *even if* is no different from its meaning anywhere else. In other words, he believes that *even if* is compositional. He would, therefore, paraphrase (1), for instance, as (14), which, in turn, he sees as roughly equivalent to (15):

(1) Even if it's raining, Peter will go out.
(14) Peter will go out even in events in which it's raining.
(15) Peter will go out in any event, including events in which it's raining.

A formal rendering of the example is given in (16) and a formal rendering of the general case *Q, even if P* in (17):

(16) $(e \in R)$ (In(*e, Peter will go out*) & $(f \in R)$ (In(*f, it's raining*) $\supset$ In(*f, Peter will go out*)))
(17) $(e \in R)$ (In(*e, Q*) & $(f \in R)$ (In(*f, P*) $\supset$ (In(*f, Q*)))

(16) reads 'In any event *e* that's a real and relevant possibility, Peter will go out, and in any event *f* that's a real and relevant possibility, Peter will go out if it's raining' or, slightly less complicated, 'Peter will go out in any event, including any in which it's raining' (Lycan 1991, pp. 129–30). In other words, Lycan sees *even* as a universal quantifier. As he (1991, p. 129) notes, his account of *even if* is a truth-conditional one, that is, unlike for Bennett, for him the truth conditions of *Q even if P* are different from those of *Q if P*. That is, according to Lycan, (7) is true just in case Peter goes out in any event in which it's raining, while the corresponding *even-if* conditional in (1) is true just in case Peter goes out in any event, including one in which it's raining.

It goes without saying that this analysis, as just given, is capable only of accounting for *even* in combination with *if*, and, even in those cases, it doesn't allow for focus distinctions. That is, while (17) may adequately capture the truth conditions of examples like (1) and (6), it won't do for an example like (9):

(9) Even if he drank **just a little** his boss would fire him.

Quite clearly, an utterance of this sentence in the scenario described above (in which the boss is so puritanical she won't stand for any drinking at all) isn't adequately paraphrased as 'His boss would fire him in any event, including one in which he drank just a little'. For this reason, and in order to be able to account for the meaning of *even* in general, not just when it co-occurs with a conditional, Lycan (1991, p. 130; 2001, pp. 105–6) proposes the account in (18) to capture the truth conditions of any sentence containing *even*. Note that he allows for the context dependence of *even* sentences by giving them conditional truth conditions, much like those proposed by Higginbotham (1988) for sentences containing indexicals, which were discussed in Chapter 1:

(18) Where *S* is a sentence containing *even*, *C* is the constituent of *S* and of its corresponding *S** that is the focus of *even* in *S*, unsaturated dashes '— —' indicate the result of subtracting *even* and *C* from *S*, and *G* is a contextually determined class containing at least one member $\neq C$: *S* is true iff every member *x* of *G* including the referent of *C* is such that —*x*—.
(Lycan, 1991, p. 130; 2001, pp. 105–6)

This means that, for instance, assuming that the focus of *even* is *Max* and that the contextually determined class is, say, a group of friends including Fritz, Moritz and Max, an utterance of (10) will be true if and only if everyone in the group, including Max, tried on the trousers:

(10) Even **Max** tried on the trousers.

In other words, the truth conditions of (10) are quite radically different from those of (11), which will be true just in case Max tried on the trousers:

(11) Max tried on the trousers.

This, again, makes it clear that, for Lycan, *even* is truth conditional. In the light of this, it is interesting to note, however, that he doesn't see every aspect of the meaning of *even* as affecting truth conditions. He (1991, p. 122) points out that *S** or, more precisely, the element that is the focus of *even* must be an extreme point on some scale, which doesn't necessarily have to be one of expectedness or likelihood. For instance, for an utterance of (10) to be acceptable in a given context, Max, in this context, must be less likely than, say, Moritz and Fritz, to try on the

trousers. However, Lycan (1991, p. 130) makes it clear that he doesn't see this scalar aspect of *even* as part of its truth-conditional meaning, but rather as being conventionally implicated or 'lexically presumed'.

Given the above account, it should now be possible to bring out the difference between (6) and (9), as seen by Lycan. In the case of the former, the focus of *even* quite clearly is the whole antecedent (*if you were the last man on earth*), *G* will contain a number of other conditions (say, *if you weren't the last man on earth, if I were in love with someone else*). According to the schema in (18), an utterance of (6) will be true if and only if under all the conditions in *G* (which will, presumably include all real and relevant possibilities or, in terms of the account given earlier, *R*), including the one in which the hearer is the last man on earth, the speaker wouldn't marry him. This explains why (6) seems to entail or imply that the speaker won't marry the hearer (at least not under any imaginable circumstances). By contrast, the focus of *even* in (9), on the 'puritanical boss' interpretation, is *just a little*, *G* will contain other amounts (such as *a lot, quite a lot, a few glasses*). An utterance of (9) will be true if and only if the boss would fire John if he drank any of the amounts in *G*, including *just a little*. This explains why an utterance of (9), at least on the interpretation here considered, doesn't imply or entail that John will be fired.

6.4.2 Counter-examples to Lycan's first account

Lycan's analysis of *even* as it has been given so far encounters a series of apparent and real counter-examples. He (1991, pp. 136–41; 2001, pp. 115–20) discusses four, two of which he dismisses. The remaining two lead him to modify his account. I will here only briefly sum up the first counter-example and Lycan's treatment of it, before going on to look in more detail at the final two and the modifications they lead to.

The first potential counter-example to any theory of *even*, as discussed by Bennett (1982, pp. 408–10), is that *even* can be used as an intensifier of comparatives. For instance, on what is probably the most natural interpretation of (19), *even* seems to lead to the implication that both Bill and John are very tall:

(19) Bill is even taller than John.

Quite clearly, such an interpretation doesn't fit Lycan's schema in (18) (nor does it fit Bennett's analysis). Lycan follows Bennett in dismissing examples of this sort as involving an *even* that is lexically different from the *even* their analyses attempt to describe. Both theorists cite as supporting evidence the fact that in a French translation of (19) *even* would be

rendered as *encore* (as in (20)), while in a translation of (10) and the other examples discussed so far, *even* would be rendered as *même* (as in (21)).

(20) Bill est *encore* plus grand que John.
(21) *Même* Max a essayé les pantalons.

I have argued in Section 4.4.3 that, appealing though it may be, this line of argument isn't compelling. It would, therefore, be worth investigating whether this use of *even* in English could be accounted for without positing a lexical ambiguity. However, because this issue doesn't seem central to the combination of *even* with *if*, I will concentrate exclusively on the uses of *even* described earlier.[10]

Both of the last two counter-examples that Lycan considers aim at the heart of his account, that is, at the idea that *even* **universally** quantifies over a contextually determined class. The examples in question are given in (22) and (23):

(22) I'll be polite even if you insult me, but I won't be polite if you insult my wife.
(23) Even Bluto stayed home.

It's reasonably obvious why (22) is problematic for Lycan's account of *even*. According to his schema, an utterance of the first conjunct of this sentence would be true just in case the speaker will be polite in every relevant event, including one in which the hearer insults him, while the second conjunct will be true iff, in any event in which the hearer insults the speaker's wife, the speaker won't be polite. In other words, if Lycan's analysis is right, it seems that (22) should be contradictory, which it clearly isn't.[11]

The example in (23) is only problematic in a very specific context. Consider the following scenario: a large group of people are invited to a party, all of whom are quite likely to attend. Of the whole group, Gonzo and Bluto are the most likely to attend. However, on the night of the party there's a flu outbreak and everyone feels pretty horrible. Gonzo is the only person who drags himself to the party. In such a scenario an utterance of (23) would be perfectly acceptable, even though not everyone in the relevant group stayed at home.

6.4.3 Lycan's revised account

As indicated above, examples of the sort in (22) and (23) led Lycan to modify his analysis. He considers two options, but I will only discuss the

one he ultimately prefers. Instead of saying that *even* means 'every … including … ' (for instance 'everyone including Max tried on the trousers'), Lycan (1991, p. 147; 2001, p. 127) suggests that *even* might mean 'every … plus … ', where the domain of the quantifier is restricted to **expected** real and relevant possibilities (giving 'everyone who was expected to, plus Max, tried on the trousers', for example).

This account can clearly deal with (22) and (23). The first conjunct of (22) is no longer paraphrased as 'I will be polite in every relevant event, including those in which you insult me', but as 'I will be polite in every relevant event in which you'd expect me to be, plus those in which you insult me'. It seems reasonable to assume that the hearer insulting the speaker's wife will not be one of the relevant events in which the speaker would be expected to be polite and, so, there is no contradiction between the two conjuncts. Similarly, (23) is no longer paraphrased as 'Everyone in the group, including Bluto, stayed home', but as 'Everyone in the group whom you would expect to stay home did, plus Bluto'. This paraphrase is, of course, perfectly compatible with a scenario in which Gonzo, whom one wouldn't expect to, didn't stay home.

So Lycan's revised account accommodates some of the examples his initial account couldn't explain. However, his initial account had the advantage of explaining straightforwardly why *Q even if P* seems to entail *Q* and he (1991, p. 147; 2001, p. 127) admits that his new 'plus' theory of *even* predicts that *Q even if P* does not **entail** *Q*. On the new account, *Q even if P* is rendered as '*Q* in any expected event plus in the event that *P*'. Now, clearly, the set of expected events will not necessarily contain any actual events so that the truth of *Q* is not guaranteed by that of *Q even if P*. Lycan (1991, p. 148) resigns himself to this consequence and says that 'it is no longer clear that the entailment holds in real life', because examples along the lines of (22) can be found for every single utterance containing *even if*. Therefore, he admits, it is probably too strong a claim that someone uttering *Q even if P* asserts *Q*, or, indeed, that *Q even if P* logically entails *Q*. Instead, he (1991, p. 148; 2001, p.128) consoles himself (and the concerned reader) with the fact that his new 'plus' theory of *even* does explain why *Q even if P* usually comes with a strong implication that *Q*: as mentioned above, on the new analysis, *Q even if P* is rendered as '*Q* in any expected real and relevant event, plus any in which *P*'. As Lycan points out, this does entail that *Q* is among the expected real and relevant possibilities, which he says 'is at least NEARLY to assert *Q*', at least in cases where there is no overt qualification to the effect that *Q* is ruled out (1991, p. 148; 2001, p.128). It seems, then, that whether or not *Q* is communicated is now a matter of

pragmatics, that is, it is no longer a direct result of the encoded meaning of *even*.

This shows that Lycan can, at a pinch, explain why an utterance of (6) strongly implies its consequent. The question is whether he can also explain why an utterance of (12) in the scenario described above doesn't imply the truth of its consequent at all:

(6) Even if you were the last man on earth, I wouldn't marry you.
(12) Even if his wife smoked, his boss would fire him.

This is a particularly pertinent question because, on Lycan's account, there is no difference in the focus of *even* between the two utterances: in both cases, *even* focuses on the antecedent excluding *if* and the relevant comparison class is one of different conditions in both cases. It seems that Lycan would have to paraphrase (12) as 'In any expected event that's a real and relevant possibility, his boss would fire him plus in the event that his wife smokes'. Clearly, this isn't how an utterance of (12) in the scenario described above would be interpreted. A more appropriate paraphrase of the intended interpretation would be something like 'His boss will fire him in any event in which he behaves in a "libertine" manner plus any in which his wife smokes'. It seems, then, that, for Lycan's account to work for this example, the comparison class of expected relevant and real possibilities has to be restricted to a greater extent than in the case of (6) and other examples that imply their consequents. The question is why? To find an answer to this, let me reconsider an aspect of Lycan's revised analysis.

As mentioned above, according to Lycan (1991, p. 147; 2001, p. 127), an utterance of the form *Q, even if P* is true just in case *Q* is true in any expected circumstance, plus any in which *P*. In the light of the above question, the interesting aspect of this is that 'any expected circumstance' can be interpreted in two ways: it could be: (a) any expected circumstance at all; or (b) any circumstance one would expect to justify *Q*. In fact, for these *even-if* examples to be parallel to non-conditional *even* examples, the paraphrases must contain (b). Recall that (10) is paraphrased as 'Everyone you would expect **to try on the trousers** did, plus Max'. That is, the relevant comparison class here includes people one would expect to try on the trousers and not people one would expect *tout court*. By analogy, the relevant comparison class for (6), for instance, has to be one of circumstances in which once would expect Mary not to marry Peter and not circumstances one would expect in general. Now the correct paraphrase for (6) is 'I wouldn't marry you in

any event in which you would expect me not to marry you, plus in any event in which you are the last man on earth'. Similarly, (12) must be paraphrased as 'His boss would fire him in any event in which you'd expect her to fire him, plus any in which his wife smokes'. Now, it may not be immediately obvious how these paraphrases can explain that an utterance of (6) implies that the speaker won't marry the hearer, while an utterance of (12) doesn't imply that John's boss will fire him.

The difference between the two cases is that, as far as circumstances in which a woman won't marry a man are concerned, those in which he is the last man on earth are about as extreme as it gets. That is, if there is any circumstance in which one would expect a woman to marry a particular man, it is, at least according to conventional wisdom, one in which he is the last man on earth. Therefore, if a woman communicates that she wouldn't marry a man in this extreme circumstance, it's more than likely that she wouldn't marry him in any other circumstance either and, therefore, that she won't marry him under any circumstance. By contrast, of all the circumstances in which John could be fired, that in which his wife smokes is fairly extreme, but it is by far not the most extreme. It would, for instance, be a lot more extreme if Sue fired John if he did a fantastic job. In other words, the circumstance in which John's wife smokes is simply not extreme enough for it to be concluded from the fact that Sue would fire him in this circumstance that she would fire him in all other circumstances, too, and, therefore, there is no implication that she will fire him. Note, however, that this all relies completely on pragmatics and that Lycan himself has very little to say on that topic.

There is a further interesting difference between Lycan's two accounts. Recall that his initial account doesn't include the relative degrees of expectedness in the truth-conditional specification of sentences containing *even*. The new analysis, however, does, at least to some degree, for the updated schema for the truth conditions of *even* sentences in (24) presupposes that the element in the focus of *even* **isn't** a member of the set of **expected** real and relevant possibilities:

(24) Where *S* is a sentence containing *even*, *C* is the constituent of *S* and of its corresponding *S** that is the focus of *even* in *S*, unsaturated dashes '— —' indicate the result of subtracting *even* and *C* from *S*, and *G* is a contextually determined class of expected, real and relevant possibilities containing at least one member: *S* is true iff every member *x* of *G* plus the referent of *C* is such that —*x*—.

This observation highlights something that is intuitively right, namely that there is something amiss if the element in the focus of *even* is among the class of expected elements. For instance, there would be something amiss if (10) were uttered in a scenario in which one would expect Max to try on the trousers. However, there are other examples that cast doubt on this assumption. For instance, an utterance of (25) seems perfectly acceptable, even though Max is among the class of people expected to try on the trousers in this scenario:

(25) The trousers looked so comfortable that I expected everyone to try them on. And, you know, I was right – even Max tried them on.

6.4.4 Advantages of Lycan's account

Lycan (1991, 2001) points out a number of problems with Bennett's account. One of them is that Bennett's requirement that there has to be just one S_j that meets his three conditions (being 'known', 'related' and less surprising than *S**) is not strong enough. Lycan (1991, p. 142) envisages the following scenario: There's a party and almost everyone who's been invited is very likely to go, with the exception of Clarence, who is very shy, and James, who is virtually autistic and even less likely to go to a party than Clarence. Now, imagine there's a flu outbreak and everyone stays at home. Since James is more likely to have stayed home than Clarence, and *James stayed home* is 'known' and 'related' to *Clarence stayed home* in the required ways, an assertion of (26) should be felicitous according to Bennett's criteria:

(26) Even Clarence stayed home.

However, it is highly doubtful that such an utterance really would be felicitous in the given scenario – I, for one, don't find it acceptable. At the very least, an utterance of (26) in this scenario is misleading, because it implies that it was more surprising that Clarence stayed home than that everyone else did. However, that's not the case here: the fact that Clarence stayed home is **less** surprising than that everyone else did. It seems, then, that, in particular, Bennett's requirement that there be just one S_j that is less surprising than *S** isn't sufficient.

Lycan's revised account can explain the unacceptability of this example along the following lines. As indicated above, on this new account, (26) presupposes that Clarence isn't one of the people whom one would expect to stay home. However, in the scenario described above, Clarence clearly would be expected to stay home.

Another point on which Lycan sees a problem with Bennett's account is connected with the latter's claim that the neighbour sentence (S_j) for a sentence, such as (6), is its consequent, in this case (27):

(6) Even if you were the last man on earth, I wouldn't marry you.
(27) I wouldn't marry you.

According to Lycan (1991, p. 120; 2001, p. 98), this claim raises two questions: (i) how does S_j meet the 'relatedness' condition; and (ii) how can a conditional and its free-standing consequent be related as neighbours? The first question amounts to asking what the general truth is that, for instance, *If you were the last man on earth, I wouldn't marry you* and *I wouldn't marry you* are part of. Question (ii) is more important: Lycan assumes that the notion of a neighbour sentence is grounded in that of a 'natural reference class' of items. For instance, in (10), where the focus of *even* is *Max*, this natural reference class would be the group of individuals who tried on the trousers:

(10) Even **Max** tried on the trousers.

The idea, then, is that Bennett's third condition (concerning the surprising nature of *S**) could be captured by saying that, compared with a salient other person (such as Moritz) who tried on the trousers, Max was less likely to do so. Lycan's problem with Bennett's account of conditionals such as (6) is that it is not clear that, in such cases, the conditional *S** and the non-conditional S_j assumed by Bennett define a similar reference class: the conditional *S** (*If you were the last man on earth, I wouldn't marry you*) seems to suggest that the natural reference class in question should be a set of conditions in which the speaker won't marry the hearer. If this were the case, the use of *even* in (6) would, among other things, indicate that, compared with other conditions under which the speaker won't marry the hearer, the one in which he is the last man on earth is less likely. In other words, what is being compared is the relative surprisingness of a class of conditions under which the speaker wouldn't marry the hearer. The problem with Bennett's claim that S_j in this case is *I won't marry you*, as Lycan sees it, is that this isn't a condition and that it's not possible to compare the expectedness of *you were the last man on earth* with that of nothing. Obviously, Lycan's own account, as demonstrated in Section 6.4.3, provides a more intuitively convincing explanation of these examples than Bennett's.

In sum, it seems that Lycan's analysis of *even* and *even if* should be preferred on two counts. First, it has no trouble explaining the unacceptability of (26) in the scenario described and, second, it gives a more intuitive account of how and why examples like (6) imply their consequents. However, it's far from clear that Lycan's analysis is correct. In particular, it is doubtful that *even* is linked with universal quantification in quite the way he envisages.

The requirement that every member *x* of *G* (which now corresponds to the set of expected real and relevant possibilities) has to be such that —*x*—, for instance, that in (10) everyone who is expected to try on the trousers has to have tried them on for an utterance of the sentence to be true, still seems too strong.

For example, it seems to me that (28) could be uttered perfectly felicitously and truthfully even in a scenario where the relevant comparison class includes Fritz, who is a confirmed clotheshorse, and, therefore, unambiguously among the group of people expected to try on the trousers:

(28) I'm amazed that Fritz didn't try on the trousers – even Max did.

In other words, it seems that, far from being true if and only if everyone who was expected to try on the trousers did so, (10) can be true in cases where not everyone who was expected to try on the trousers did so, just as long as Max tried them on. If this is right, then it is doubtful that *even* sentences imply a universal quantification along the lines of (24). This is borne out by a comparison between (28) and its Lycan paraphrase (29), which is not acceptable in the same scenario:

(29) *I'm amazed that Fritz didn't try on the trousers – everyone who was expected to plus Max did.

I will argue later that a scalar account can capture Lycan's intuitions without requiring universal quantification of the sort envisaged by him.

6.4.5 Barker's universal account

Barker starts by discussing Bennett's analysis of *even* and *even if* and he appeals to a number of counter-examples to show that the three conditions Bennett places on the felicitousness of *even* sentences, though they may be necessary, are not sufficient. According to Barker (1991, pp. 4–5), Bennett's three conditions on a neighbour sentence S_j (being 'known', 'connected' and less surprising than *S**) are met in the examples

in (30)–(32), but the utterances containing *even* are still not felicitous:

(30) Scenario: Looking out of the window A expects to see only family members in the front yard, he sees three figures and remarks truly:

A There's Pa and Grandma outside and even Ronald Reagan!
B Even Reagan is outside!

(31) *A* Only three people won a prize this year: Brain and Smart, as expected, and, unexpectedly Smith, who is last year's worst student.
B Even Smith won a prize!

(32) *A* Out of a thousand people few died of the disease, two old ladies, a child, a young woman, surprisingly, and even the man everyone thought completely invulnerable.
B Even **he** died of the disease!

As already mentioned, all three examples meet Bennett's three conditions for a neighbour S_j (and *S** is true in all cases, too). I will follow Barker in only demonstrating this for (30). Here, in B's utterance, *S** is *Reagan is outside*, and there is at least one S_j (for example *Grandma is outside*) available which is: (i) true and salient in the context (A has just asserted it); (ii) (together with *S**) part of a single more general truth, namely *there are three people outside*; and (iii) less surprising than *S**. From the existence of such counter-examples Barker concludes that Bennett's account of *even* is insufficient and he moves on to propose an alternative account of his own.

According to Barker (1991, p. 10), the felicity conditions of an *even* statement are those given in (33). Note that these are assumptions that are necessary for an *even* sentence to be uttered felicitously and not truth conditions. In other words, neither (i) nor (ii) is entailed by an *even* utterance – they are both 'merely' implied. Note also that S_u is taken to be a universal sentence, such as *Everyone tried on the trousers*:

(33) (i) *S** and S_j are asserted as universal instantiation cases of an implied or stated S_u.
(ii) *S** is an extreme instance of S_u.

On this account, a sentence like (10) can be uttered felicitously just in case *Max tried on the trousers* (*S**) and, say, *Moritz tried on the trousers* (S_j)

are asserted as universal instantiation cases of an implied or stated S_u, such as *Everyone in the group tried on the trousers*, and that *Max tried on the trousers* (*S**) is an extreme case of *Everyone tried on the trousers* (S_u).

(10) Even **Max** tried on the trousers.

There's an obvious problem with this, namely that the S_j in question (*Moritz tried on the trousers*) doesn't have to be explicitly asserted at all for an utterance of an *even* sentence to be felicitous. (10), for example, can be asserted without any S_j being asserted along with it.[12] Giving the benefit of the doubt to Barker, I will assume that by 'assert' he may mean nothing stronger than 'communicate' and it does seem right that a speaker uttering (10) will at least be communicating that someone else tried on the trousers too (though I'm not convinced that anything more specific than that needs to be recovered for the hearer to understand the utterance).

Whatever problems Barker's account might encounter, it looks as though he can at least explain why the *even* utterances in (30)–(32) are not felicitous. For instance, in (30) *S** is *Reagan is outside*, while the S_js are *Pa is outside* and *Grandma is outside*. The problem is that it's hard to see what S_u these S_js could be instantiations of. It can't be *all members of A's family are outside* and it can't be *all American citizens are outside*. This explains why an *even* utterance in this scenario is infelicitous. It seems clear that similar explanations can also be given for the *even* utterances in (31) and (32). In the former, the S_u can be neither *all students won a prize* nor *all talented students won a prize* and in the latter it can't be *everybody died of the disease* or *everybody weak died of the disease*.

Let me now turn to the question of how Barker's account of *even* works in cases like (6) where *even* combines with a conditional:

(6) Even if you were the last man on earth, I wouldn't marry you.

Analogous to other examples involving *even*, an utterance of (6) will be felicitous just in case *S** (*If you were the last man on earth, I wouldn't marry you*) and S_j (for instance, *If I were in love with someone else, I wouldn't marry you*) are instantiations of an explicit or implied S_u (say *I wouldn't marry you under any circumstance*) and *S** is an extreme case of S_u. If this is, indeed, how Barker would account for the example in (6), then it seems that he can explain with ease why an utterance of this sentence implies that the speaker won't marry the hearer. If she wouldn't marry him under any circumstance, then she clearly won't marry him.

What is more, it seems that Barker's account can also explain why an utterance of (12) in the envisaged scenario (that is, one in which the boss is so puritanical she won't stand for any 'libertine' behaviour on the part of her employees or their families) does not entail that his boss will fire him:

(12) Even if his wife smoked, his boss would fire him.

Here, Barker might claim, the implied S_u is not *His boss would fire him in any circumstance but rather His boss would fire him in any circumstance in which he or his family are behaving in a 'libertine' manner*. As he himself (1991, p. 16) states, this means that, in cases where an utterance of *Q even if P* 'entails' *Q*, this isn't due to its logical form. Instead, it seems that the difference in implications between these two examples is down to a difference in the domain of the universal quantification that is implied by the use of *even*: in the case of (6) the speaker is understood to be quantifying over all circumstances, while in (12) she is understood to be only quantifying over circumstances in which John or his family behave in a 'libertine' manner. Clearly, there is nothing semantic (in the sense of 'linguistically encoded') that determines the domain of quantification in each case. In other words, the hearer has to work out what it is on purely pragmatic grounds. Like Lycan, Barker has little to say about just what pragmatic principles guide the hearer in his search for the intended domain of quantification.[13]

From the above discussion, it will be clear that Barker's (1991) account shares much with Lycan's (1991), though the two were developed independently of each other. Not the least of their similarities is that they both see an important role for universal quantification. However, they differ in that, for Lycan, the universal quantification is a matter of the truth conditions of *even* sentences, while, for Barker, it is merely a matter of felicity conditions. Furthermore, Barker's analysis is closer to Lycan's initial account than to the one Lycan ultimately adopts. For this reason, Barker's account encounters problems, not just in the form of the counter-arguments to Lycan's revised analysis, but also those to his initial analysis. I will demonstrate this in Section 6.6.

Summing up, the proponents of the 'universal' accounts discussed in this section highlight a number of counter-examples to Bennett's 'existential' analysis, and their accounts are equipped to deal with them. However, neither Lycan's nor Barker's analyses are entirely satisfactory themselves because they still can't adequately account for the full range of examples involving *even*. In the next section, I will consider a further

'existential' account to see whether there are ways of avoiding the difficulties with Bennett's analysis without having to buy into the problematic idea of *even* as a universal quantifier.

6.5 An existential alternative: Francescotti (1995)

Francescotti (1995) offers an alternative to Lycan's and Barker's accounts of *even* in existential terms and, thus, an analysis much closer in spirit to Bennett's. Like Bennett (and Barker), he doesn't believe that *even* affects the truth conditions of the utterances in which it occurs; instead he believes that *even* carries a conventional implicature. However, his analysis differs from Bennett's in that it requires more than one true neighbour to be more likely (or less surprising) than *S**. The felicity conditions on the use of *even*, according to Francescotti (1995, pp. 162 and 167), are those in (34):

(34) (i) for *any* contextually determined, true neighbour S_j of *S**, the truth of *S** and that of S_j can naturally be seen as parts of a more general truth, and
(ii) there is some contextually-determined aspect *X*, such that *S** is more surprising than most S_js with respect to *X*.

This analysis avoids all counter-examples to accounts of *even* in terms of universal quantification. For instance, recall (28) uttered perfectly felicitously and truthfully in a scenario in which Fritz is a confirmed clotheshorse. As I argued above, Lycan's revised analysis can't account for this example – according to him, an utterance of *even Max tried on the trousers* is true just in case Max tried on the trousers in addition to everyone whom one would have expected to try them on (a group which clearly includes Fritz in the envisaged scenario) and so (28) ought to be contradictory:

(28) I'm amazed that Fritz didn't try on the trousers – even Max did.

Barker's analysis, too, can't deal with this example adequately. According to him, the *even* sentence must be an extreme instance of a universally quantified assumption and it isn't clear what this could be in this scenario. It certainly can't be *everyone in the group* or *everyone who normally tries on clothes*. In other words, both Lycan and Barker would predict the *even* utterance in (28) to be infelicitous in the envisaged scenario and Lycan would predict it to be false. Clearly, it is neither.

Francescotti's account can deal with this example without any problems. According to him, the *even* utterance in (28) is felicitous just in case the following two conditions hold: (i), any contextually determined S_js (for instance *Moritz tried on the trousers*) can be seen as forming part of a more general truth together with *S** (*Max tried on the trousers*). In the envisaged scenario, this general truth might be something like 'the majority of people in the group tried on the trousers';[14] (ii), there is some contextually determined aspect *X*, such that *S** (*Max tried on the trousers*) is more surprising than most of the S_js (*Moritz tried on the trousers*) with respect to *X* (which might be something like 'subjective likelihood').

Interestingly, this shows that Francescotti's analysis does involve universal quantification. That is, his condition (i) states that **any** S_j must form part of a more general truth together with *S**. Contrary to Lycan and Barker, he doesn't require there to be universal quantification over a comparison class. In other words, there is no claim that the *even* utterance in (28) should imply or entail that **everyone** in a particular group tried on the trousers. As it stands, Francescotti's account actually doesn't seem to require that **anyone** other than Max tried on the trousers either, but this is clearly an oversight. That is, his analysis should, surely, specify that, for the felicitousness of an *even* utterance, at least one true S_j fulfilling the conditions in (34) is needed – no doubt, he is implicitly assuming this.

Francescotti's account can also deal with Lycan's counter-example to Bennett of (26) uttered in a scenario in which everyone stayed home and Clarence was slightly less likely to stay home than James, but more likely than anyone else:

(26) Even Clarence stayed home.

Recall that the problem for Bennett was that there is one S_j (namely *James stayed home*) that is true, known and less surprising than *S** (*Clarence stayed home*). Francescotti's condition (ii) means that he can deal with this example. As mentioned above, this condition states that *S** must be more surprising than **most** S_js. Now, the difficulty with example (26) in the envisaged scenario isn't a lack of true or related S_js (everybody stayed home, so there is a large supply of S_js – one for each member of the group). The problem is that *S** (*Clarence stayed home*) is **more** likely than most of them and only **less** likely than one of them (*James stayed home*). In other words, in this scenario, Francescotti's condition (ii) isn't met – Clarence wasn't less likely to stay home than **most** of the others

who did – and he would correctly predict an utterance of (26) to be infelicitous in this scenario.

Let me now consider how Francescotti's account of *even* fares with the *even-if* examples (6), (9) and (12). The most important question is whether and how he could explain why (6) 'entails' or implies its consequent while the other two don't:

(6) Even if you were the last man on earth, I wouldn't marry you.
(9) Even if he drank **just a little** his boss would fire him.
(12) Even if his wife smoked, his boss would fire him.

Intuitively, it seems to me that he might not find it entirely straightforward to explain why (6) strongly implies that the speaker won't marry the hearer. If one applies his (1995, pp. 162 and 167) two conditions to (6), its utterance should be felicitous just in case the conditions in (35) hold:

(35) (i) for any contextually determined true neighbour S_j (such as *If I were in love with somebody else, I wouldn't marry you; If I didn't like you, I wouldn't marry you*) of *S** (*If you were the last man on earth, I wouldn't marry you*), the truth of *S** and S_j can naturally be seen as parts of a more general truth; and
(ii) there is some contextually determined aspect *X*, such that *S** (*If you were the last man on earth, I wouldn't marry you*) is more surprising than most of the S_js with respect to *X* (which could be something like 'generally accepted standards').

It seems to me that the only way in which this could predict that an utterance of (6) 'entails' or implies that the speaker won't marry the hearer is that the 'more general truth' *S** and S_j must naturally be part of is something like 'I wouldn't marry you in any circumstance'. There is, however, absolutely nothing in this analysis that indicates that the 'more general truth' in question couldn't be something weaker, such as 'There are a number of circumstances in which I wouldn't marry you'. So, once again, we're left with pragmatics having to play an important role in accounting for the examples, but no explicit account being given of how this could be done. Indeed, not one of the theorists whose work has been discussed so far acknowledges how important pragmatics is for his analysis. I will take care in my own analysis to give due weight to the role of pragmatics and will provide an account of how the interplay between the semantics of *even* and the pragmatic principles of Relevance Theory can explain the data.

So far, I have shown that Francescotti has no problems in dealing with Lycan's counter-example to Bennett's analysis. However, things are less straightforward when it comes to Barker's counter-examples. I'll look here at just one of the three examples Barker (1991, pp. 4–5) cites:

(31) *A* Only three people won a prize this year: Brain and Smart, as expected, and, unexpectedly Smith, who is last year's worst student.
B Even Smith won a prize!

According to Barker, B's utterance in (31) is infelicitous even though it fulfils Bennett's three conditions. So, does it also meet Francescotti's two conditions or does his account deal with this type of example adequately? According to him, the felicity conditions for B's utterance here would be something along the lines of (36):

(36) (i) for any contextually determined, true neighbour S_j (*Brain won a prize, Smart won a prize*) of *S** (*Smith won a prize*), the truth of *S** and that of S_j can naturally be seen as parts of a more general truth; and
(ii) there is some contextually determined aspect *X*, such that *S** (*Smith won a prize*) is more surprising than most S_js (*Brain won a prize, Smart won a prize*) with respect to *X* (which here might be something like 'likelihood on the basis of previous performance').

Once more it seems to me that the key point is that of the 'more general truth' required by condition (i). One way to explain why B's utterance in (31) is not felicitous is by claiming that there is no 'more general truth' that *S** and the S_js could naturally be seen as part of. If that were the case, then this wouldn't be a counter-example to Bennett's account either. However, Barker takes care of this possibility by maintaining that the more general truth in question could easily be 'only three people won a prize'. Now, one way in which Francescotti (or Bennett, for that matter) could respond to this is to say that, for one reason or another, 'only three people won a prize' isn't the right kind of general truth. This, of course, would be begging the question and Francescotti (1995, pp. 170–2) opts for a different response.

He argues that the infelicitousness of Barker's example has nothing to do with the use of *even* itself. He first states that *S** only has two true neighbours (*Brain won a prize* and *Smart won a prize*) and that, therefore,

Smith won a prize 'is just barely in the majority' (Francescotti 1995, p. 171). I am not entirely sure what he means by this, but I assume that he must be referring to his condition (ii), according to which *S** has to be more surprising than most of its true neighbours. If this is the case, what he must mean is that *Smith won a prize* is only just more surprising than **most** of its true neighbours. Quite obviously, that's not the case. As mentioned above, in this scenario *Smith won a prize* has only two true neighbours (*Brain won a prize* and *Smart won a prize*) and, as Francescotti (1995, p. 170) himself concedes, in the envisaged scenario it is clearly more surprising than either of those. In other words, *S** (*Smith won a prize*) is not only more surprising than **most** of its true neighbours – it's more surprising than **all** of them. So, this first step in Francescotti's reply to Barker's counter-example is at best mysterious and at worst quite wrong.

The second step Francescotti takes is to argue that the use of *even* in B's utterance in (31) is missing A's point. According to him (1995, p. 171), this utterance 'would be appropriate only if the speaker were emphasising the unexpectedness of Smith's winning relative to that of Brain and Smart' and he further claims that A's utterance is doing something completely different, namely stressing how few people won a prize and how surprising Smith's winning a prize is given that so few people did. He maintains that (37), which captures the point that is being made by A more accurately, would be a perfectly acceptable response to A's utterance:

(37) You mean even Smith won a prize when so few were able to do so!

Whether or not this utterance is acceptable, this line of argument still doesn't address Barker's worry. Consider a scenario in which the content of A's utterance was true and known by B, but in which A hadn't said anything. In such a situation, where A hasn't spoken, there would be no point to A's utterance which B's utterance could be said to be missing. And yet B still wouldn't be able to felicitously utter *Even Smith won a prize*. It seems, then, that these examples need an explanation that isn't provided by Francescotti.

To conclude this section, although Francescotti gives an account that can avoid all counter-examples to the 'universal' analyses discussed in Section 6.4, as well as Lycan's counter-example to Bennett's account, Barker's counter-examples to Bennett's account also present a problem for Francescotti. In other words, none of the accounts above can deal with the full range of examples. In the next section, I will give a

summary of the problematic examples, noting who they're problematic for and why, before moving on to a type of account I haven't yet considered: scalar approaches to the meaning of *even*.

6.6 Taking stock

None of the accounts of the meaning of *even* discussed so far is fully adequate. It seems that universal accounts equipped to deal with examples problematic for existential accounts run into problems avoided by existential accounts and vice versa. In what follows, I will 'translate' all the counter-examples into one scenario, in the hope that it may become clearer how to find an analysis of *even* that can handle them all.

Since what seems to be needed for all counter-examples is a group of people who are ranked in some way, I will stick with a group of students ranked according to how good they are at passing exams. They are listed in (38), in descending order of ability, starting with the most able student:

(38) April, Maynard, June, Julie, Augusta, Sebastian and Neville.

Now, Lycan's counter-example to Bennett can be translated as (A):

(A) Scenario: Everyone failed the exam.

Susan ?Even **Sebastian** failed the exam.

This presents a problem for Bennett because his account doesn't require that there be more than one S_j (in this case, *Neville failed the exam*) that is less surprising than *S**. As Francescotti shows, all that is needed to avoid this counter-example is a strengthening of this to the requirement that *S** be more surprising than **most** S_js, which isn't fulfilled in this scenario, because *S** is only more surprising than one S_j and less surprising than most.

Barker's counter-example translated into these terms results in (B):

(B) Scenario: Only April, Maynard and Neville have passed the exam.

Susan ?Even **Neville** passed the exam.

Because Neville's passing the exam is more surprising than either of the others', this example not only meets Bennett's conditions but also Francescotti's. In fact, set out like this, this example might present a

problem for Lycan's revised account, too. It is at least conceivable that April and Maynard were the only people expected to pass the exam on this occasion and, therefore, that Lycan's truth condition is met, that is, that everyone who was expected to pass, plus Neville, did pass. However, I don't believe that Susan's utterance would be any more acceptable under those circumstances. So, the only analysis that can account for the infelicity of this example is Barker's own, which requires that *Neville passed the exam* be an extreme instance of a universal quantification, such as *everyone in the group passed the exam*. Clearly, this requirement isn't met in the envisaged scenario.

However, there are counter-examples to this account, too. Recall, for instance, the counter-example to Lycan's first analysis. Applied to our group of students, Susan's utterance is perfectly acceptable in the scenario in (C) even though not everyone in the group passed the exam:

(C) Scenario: Everyone except Neville passed the exam.

Susan Even **Sebastian** passed the exam.

Assuming that, in this scenario, everyone, except Neville and Sebastian, was expected to pass the exam, Lycan's revised account can explain why this utterance is acceptable (and would be judged true): it is, indeed, the case that everyone who was expected to, plus Sebastian, passed the exam. The problem is that I think the utterance would still be acceptable if only April, Maynard and June were expected to pass. Lycan would predict that Susan's utterance under those circumstances should be true if and only if April, Maynard, June and Sebastian passed, and that Susan's utterance should therefore not be acceptable here (because we know that Julie and Augusta passed too).

This example is even more of a problem for Barker, because, for him, its acceptability requires that *Sebastian passed the exam* be an extreme instance of a universal quantification. However, it's difficult to see what this universal quantification could be. It can't be *everyone in the group passed the exam*, because Neville didn't, and it can't be *everyone who was expected to passed the exam*, because Sebastian isn't a member of the group of people who were expected to pass and, therefore, *Sebastian passed the exam* couldn't be an extreme instance of that quantification. It seems that the only alternative is the tautologous *everyone who passed the exam passed the exam*.

Finally, there is my own counter-example to Lycan's revised account. This can be translated as (D). Again, Susan's utterance is perfectly

acceptable, even though not everyone who was expected to pass did:

(D) Scenario: Everyone passed the exam with the exception of April, who failed for mysterious reasons.

Susan Even **Neville** passed the exam. So, I can't understand why April didn't.

In fairness to Lycan, it has to be said that Susan's utterance on its own, without her adding that April failed would most likely be taken to be implying that everyone, including April, did pass. The problem is more that such an overt qualification doesn't result in any sort of contradiction, which casts doubt on Lycan's claim that the universal quantification of 'everyone who was expected to, plus Neville, passed the exam' is a matter of the truth-conditional content of Susan's utterance in (D).

Since Barker doesn't claim that the universal quantification is anything more than an implicature, it seems that this example doesn't present a problem for him. After all, implicatures can be cancelled without contradiction. However, if Barker sees the implication of a universal quantification as a matter of **conventional** implicature, that is, the **linguistically encoded** meaning of *even*, there might yet be a problem, because it isn't normally possible to cancel a conventional implicature without contradiction. For instance, (39), where the *but* clause is intended to cancel the premiss–conclusion relationship conveyed by the use of *therefore*, sounds odd in a way that (40), where the *but* clause cancels the assumption that everyone in the group passed the exam, doesn't:

(39) ?Peter is an Englishman and he is, therefore, brave, but I don't mean to imply that his being brave follows from his being an Englishman.

(40) Even Neville passed the exam, but I don't mean to imply that everyone did.

Even if Barker could deal with this example, it has been shown that his account trips up on (C).

Summing up, it seems that the most difficult example to accommodate is (B), which is analogous to Barker's (30)–(32). Out of all the accounts considered, only Barker's can explain why this is unacceptable. However, (C) (and conceivably also (D)) presents an insurmountable difficulty for Barker's account. The challenge, then, is to find an account

that is 'universal' enough to explain why Susan's utterance in (B) is unacceptable, but not so 'universal' that it can't account for the acceptability of (C) and (D).

6.7 Scalar accounts of *even*

6.7.1 Pragmatic probability scales: Fauconnier (1975)

In light of the discussion above, I believe a notion of scales is needed to give a satisfactory analysis of *even* and *even if*. In fact, there are a number of theorists who have made use of scales in their accounts of *even*. For instance, Fauconnier (1975, p. 364) analyses *even* as marking the existence of a pragmatic probability scale on which the element in the focus of *even* is the lowest point (that is, is the least probable). Assuming that subtracting the element in the focus of *even* from the proposition expressed by the utterance leads to the propositional schema *R* and α stands for the focused element, the scale is such that $R(\alpha)$ pragmatically entails $R(\chi)$, where χ is any element on the scale above α. Translated into the terminology used so far, this amounts to the claim that *S** is such that it pragmatically entails (I prefer the term 'implies') any S_js. Applied to (10), for example, this means that *even* is seen as indicating that Max is the least likely of a group of people to try on the trousers and that his trying them on implies that everyone else on the scale tried them on, too:

(10) Even **Max** tried on the trousers.

Thus, Fauconnier's analysis is, in effect, a scalar version of a universal account. This means that it has no problems accounting for the examples universal accounts can deal with. By the same token, however, Fauconnier's analysis runs into similar difficulties to those faced by universal accounts.

On the positive side, Fauconnier's analysis explains straightforwardly why Susan's utterance in (A) is unacceptable:

(A) Scenario: Everyone failed the exam.

Susan ?Even **Sebastian** failed the exam.

According to Fauconnier's account, *even* indicates that Sebastian is the least likely member of the group to fail the exam. However, this goes counter to our background knowledge in this example – April is the

member of the group in (38) least likely to fail an exam. Fauconnier's analysis also does a good job of explaining the unacceptability of Susan's utterance in (B):

(B) Scenario: Only April, Maynard and Neville have passed the exam.

Susan ?Even **Neville** passed the exam.

Again, *even* indicates that Neville is the lowest element on a likelihood scale, such that his passing implies that everyone else passed, too. However, this clashes with our background knowledge (we know that not everyone else passed) and, thus, we feel Susan's utterance to be infelicitous.

Because Fauconnier's scale is one of pragmatic implication, rather than logical (or semantic) entailment, he can also account for the acceptability of Susan's utterance in (D), which is problematic for the universal accounts discussed above:

(D) Scenario: Everyone passed the exam with the exception of April, who failed for mysterious reasons.

Susan Even **Neville** passed the exam. So, I can't understand why April didn't.

As always, *even* indicates that *S** is such that it pragmatically implies all the S_js on the scale. In the envisaged scenario, this is most likely to mean that NEVILLE_x PASSED EXAM_y implies that everyone else in the group, including April, passed too. However, since APRIL_z PASSED EXAM_y is only a pragmatic implication, Fauconnier would correctly predict that this assumption can be cancelled without contradiction. Note that it is only part of the encoded meaning of *even* **that** there is a scale and that *S** is at its extreme end and that no information about what else is on the scale is linguistically encoded. Thus, Susan's utterance is acceptable because it isn't trying to cancel (part of) the linguistically encoded meaning of *even*. It seems, then, that Fauconnier not only has the advantage over Lycan, but quite possibly also over Barker, when it comes to accounting for (D).

Furthermore, Fauconnier can also explain with ease why an utterance of (6) is felt to imply that the speaker (Mary) wouldn't marry the hearer (Peter) under any circumstances:

(6) Even if you were the last man on earth, I wouldn't marry you.

The focus of *even* here is on the antecedent, so that, presumably, the scale it invokes is one on which Peter being the last man on earth is the least likely circumstance in which Mary wouldn't marry him and IF PETER_X WERE THE LAST MAN ON EARTH, MARY_Y WOULDN'T MARRY PETER_X will imply that Mary wouldn't marry Peter under any of the other circumstances on the scale.

Example (9) presents no problems for Fauconnier's account either. He would correctly predict that this does not imply or entail that his boss, Sue, would fire John under any circumstances:

(9) Even if he drank **just a little** his boss would fire him.

Because the focus of *even* is on *just a little*, the propositions on the scale will be of the following sort: IF JOHN_X DRANK JUST A LITTLE JOHN_X'S BOSS WOULD FIRE HIM (*S**), IF JOHN_X DRANK AN AVERAGE AMOUNT JOHN_X'S BOSS WOULD FIRE HIM, IF JOHN_X DRANK A LOT JOHN_X'S BOSS WOULD FIRE HIM, and so on. *Even* indicates that *S** pragmatically implies the other propositions on the scale, which leads to the conclusion that Sue would fire John in any circumstance in which he drank, which is not the same as Sue firing him in any circumstance at all.

The problems start, however, when it comes to accounting for the intuition that Susan's utterance in (C) is perfectly acceptable:

(C) Scenario: Everyone except Neville passed the exam.

Susan Even **Sebastian** passed the exam.

It seems that Fauconnier's analysis would predict her utterance to be unacceptable because Sebastian is not the least likely member of the group to pass the exam – Neville is. Of course, Sebastian is the least likely member of the group who actually passed the exam, so maybe there's a way Fauconnier's analysis could be saved.

By contrast, there seems to be no such way out when it comes to explaining why (12) does not imply that Sue will fire John:

(12) Even if his wife smoked, his boss would fire him.

Here, as in (6), the focus of *even* is on the whole antecedent and, thus, Fauconnier would, presumably, analyse an utterance of this as conveying that John's wife smoking is the least likely circumstance in which Sue will fire John. However, this is plainly not the case – it seems far less

likely that Sue would fire John if he did a perfect job, for instance. This seems to suggest that Fauconnier would either have to predict that an utterance of (12) is unacceptable, which it clearly isn't, or that it pragmatically implies that Sue would fire John under any circumstance, which it clearly doesn't.

In sum, then, Fauconnier's analysis is successful in accounting for most of the examples discussed so far, but (12) proves to be a serious stumbling block. The reason for this is that Fauconnier's claim that *even* always marks the element in its focus as the least likely among a set of alternatives cannot be correct. Kay (1990) provides an alternative that avoids this problem.

6.7.2 Informativeness scales: Kay (1990)

The analysis proposed by Kay (1990)[15] differs from Fauconnier's in two crucial points: (a) Kay does not assume that the scale in question is necessarily one of likelihood; and (b) he doesn't see *even* as marking the focused element as the lowest on the scale. Instead, he proposes that *even* indicates that the sentence or clause in which it occurs expresses a proposition that is stronger (or more informative) than some particular distinct proposition assumed to be already part of the context (1990, p. 66). The notion of informativeness Kay operates with is defined with respect to what he terms a 'scalar model'.

In a nutshell, a scalar model in this picture consists of at least two ordered sets, *X* and *Y*, and a propositional function that maps pairs consisting of one member of *X* and one of *Y* on to propositions. For instance, let *X* be a set of people ordered according to their willingness to try on clothes, starting with the most willing (for instance, {Fritz, Moritz, Max}). Let *Y* be a set of trousers ordered according to how enticing they look, starting with the most enticing. In that case, the propositional function in the scalar model may map a person/trousers pair on to the proposition PERSON X TRIED ON TROUSERS Y. The idea is then that a proposition *P* entails a proposition *Q* just in case the pair in *Q* is closer than that in *P* to the pair that is most likely to lead to a true proposition. This pair is referred to as the 'origin' – in this case, it would be the pair consisting of the most willing person and the most enticing trousers, because if any proposition of the form PERSON X TRIED ON TROUSERS Y is going to be true, it surely must be THE MOST WILLING PERSON TRIED ON THE MOST ENTICING TROUSERS. *Q* is closer to the origin, just in case at least one value is lower than that of *P* and neither is higher. In other words, THE LEAST WILLIING PERSON TRIED ON THE LEAST ENTICING TROUSERS entails THE MOST WILLING PERSON TRIED ON THE MOST ENTICING TROUSERS.

Similarly, THE LEAST WILLING PERSON TRIED ON THE LEAST ENTICING TROUSERS also entails THE MOST WILLING PERSON TRIED ON THE LEAST ENTICING TROUSERS, and so on.

Let's apply this to example (10), uttered in a context in which it is known to both the speaker and the hearer that Max, Moritz and Fritz all tried on the trousers:

(10) Even **Max** tried on the trousers.

Presumably, the presupposed scalar model would be as just described and ***S**** (MAX_x TRIED ON TROUSERS_y) entails (or is more informative than) all S_js (MORITZ_z TRIED ON TROUSERS_y and FRITZ_Q TRIED ON TROUSERS_y)in this model because Fritz is more willing than Moritz to try on clothes and Moritz more willing than Max. Thus ***S**** is the proposition closest to the origin.[16]

As mentioned at the beginning of this section, Kay believes that *even* encodes the information that the proposition expressed by *S* is more informative than some other proposition already in the context (the 'context proposition'). In other words, this account demands that ***S**** be more informative than just one S_j. Thus, it seems very much like a scalar version of an existential account. One would, therefore, expect it to struggle with the same kinds of examples as the existential accounts discussed above. Indeed, it does seem to make the wrong prediction for Susan's utterance in scenario (A). This example (as well as (B)–(D)) is set up in such a way that there is a ready-made scalar model available. This contains an ordered set of students starting with the most able – {April, Maynard, June, Julie, Augusta, Sebastian, Neville}, as in (38) – an ordered set of exams starting with the easiest and a propositional function mapping student/exam pairs on to propositions of the form STUDENT X FAILED EXAM Y. In this model, then, SEBASTIAN_2 FAILED EXAM_x is more informative than NEVILLE_1 FAILED EXAM_x because Neville is the weakest student and, therefore, it is more likely to be true that Neville failed the exam than that anyone else did. This means that Susan's utterance in (A) should be acceptable: the proposition expressed by S (SEBASTIAN_2 FAILED EXAM_x) is more informative than the context proposition NEVILLE_1 FAILED EXAM_x. It seems, then, that Kay encounters exactly the same problem as Bennett.

Unlike Bennett, however, Kay might be able to explain why Susan's utterance in (B) is not felicitous: it seems reasonable to assume that the scalar model involved here would have to be the same as above (except that the propositions in question are of the form STUDENT X **PASSED** EXAM Y). However, this would mean that NEVILLE_1 PASSED EXAM_x entails that all the others passed the exam. Clearly, this isn't the case here. In other words,

it seems that there is no scalar model to be presupposed in this case and, therefore, Susan's utterance is unacceptable. (C), too, doesn't present any problems for Kay. Still assuming the same scalar model, SEBASTIAN$_2$ PASSED EXAM$_X$ is more informative than several other propositions in the context (AUGUSTA$_3$ PASSED EXAM$_X$, JULIE$_4$ PASSED EXAM$_X$, and so on), and so Kay would correctly predict Susan's utterance here to be felicitous. Finally, it's not clear that Kay could deal with (D). Again, according to him, *even* indicates that *S** (NEVILLE$_1$ PASSED EXAM$_X$) is more informative than some other proposition(s) on the scale. This is certainly the case here, so Susan's utterance of *Even Neville passed the exam* would be expected to be acceptable. However, it seems that the most likely scale to be accessed in this scenario is such that Neville's passing entails everyone else's (including April's). Thus, if the entailment in question is logical or semantic, Susan's utterance as a whole should be perceived to be contradictory, which it isn't. In other words, Kay can account for two of the problematic examples but not the other two.

When it comes to dealing with the conditional examples, too, Kay's analysis seems to meet with mixed fortunes.[17] For instance, Kay's analysis will predict correctly that (6) implies that Mary wouldn't marry Peter only if one assumes that the presupposed scalar model is such that *S** (IF PETER$_X$ WERE THE LAST MAN ON EARTH, MARY$_Y$ WOULDN'T MARRY PETER$_X$) is the **most** informative proposition on a scale and thus entails all other propositions of the form IF X, MARY$_Y$ WOULDN'T MARRY PETER$_X$. However, there is nothing about Kay's analysis that forces such an interpretation (*even* emphatically isn't seen as marking the extreme end of the scale). An alternative explanation of this example would be that the only other proposition in the scalar model (that is, the contextually available proposition which is less informative than the proposition expressed) would be IF PETER$_X$ WEREN'T THE LAST MAN ON EARTH, MARY$_Y$ WOULDN'T MARRY PETER$_X$. This would explain why MARY$_Y$ WOULDN'T MARRY PETER$_X$ is implied here. However, it's not quite clear why the scale should only contain these two propositions, or what property it is that PETER$_X$ WERE THE LAST MAN ON EARTH possesses to a greater extent than PETER$_X$ WERE NOT THE LAST MAN ON EARTH.

It seems that Kay might find it easier to explain why (12) doesn't imply its consequent. This will be the case if *S** (IF JOHN$_X$'S WIFE SMOKED, JOHN$_X$'S BOSS WOULD FIRE HIM) is not the most informative proposition in the presupposed scalar model, but merely more informative than some contextually available proposition or other (for instance, IF JOHN$_X$ SMOKED, JOHN$_X$'S BOSS WOULD FIRE HIM). Similarly, Kay could explain why (9) doesn't imply that John's boss will fire him. *Even* indicates that the proposition expressed (IF JOHN$_X$ DRANK JUST A LITTLE, JOHN$_X$'S BOSS WOULD FIRE HIM) is more

informative than some other, contextually available, proposition (for instance, IF JOHN$_X$ DRANK A LOT, JOHN$_X$'S BOSS WOULD FIRE HIM). From this, it clearly doesn't follow that John's boss would fire him in any event. Note, however, that the explanation of all these examples crucially depends on what is taken to be part of the scalar model and, in particular, which context proposition(s) one is dealing with. Kay (1990, p. 63) assumes that the scalar model contains a set of propositions that are part of the shared background of the hearer and the speaker and that the context proposition is 'taken to be already present in the context' (1990, p. 66). However, he has little to say about just how the hearer works out which propositions the speaker assumes are part of the shared background.

In sum, then, it seems that the scalar analyses of Fauconnier (1975) and Kay (1990) have a better chance of accounting for the full range of examples than any purely existential or purely universal analysis. However, neither of them is capable of dealing with every type of example. I believe that the main reason Fauconnier and Kay (and, indeed, any of the other theorists whose analyses have been discussed) struggle is that they are trying to analyse the meaning of *even* in such a way that pragmatics does not play too great a role in working out the interpretation of an *even* sentence on a particular occasion. It has been seen that it is still not possible to excise pragmatic factors altogether: Bennett and Francescotti rely on pragmatically determined neighbour sentences and single more general truths, Lycan's domains of quantification (what is expected in particular circumstances) have to be determined pragmatically, the same goes for Barker's universally quantified proposition S_u and both Fauconnier's and Kay's scales must be determined by pragmatics at least in part. Given these observations, it seems remarkable that not a single one of these theorists explicitly acknowledges, much less attempts to give a theoretically sound analysis of, the role pragmatics plays in the interpretation of *even* utterances.

In what follows, I will propose a scalar analysis of the meaning of *even* that owes as much to the pragmatic framework of Sperber and Wilson's (1986/1995) Relevance Theory as it does to the work of Fauconnier and Kay.

6.8 A procedural scalar account of *even*[18]

6.8.1 Inferred scales of implication

Taking a leaf out of Fauconnier's and Kay's book as far as scalarity is concerned, but couching my analysis in relevance-theoretic terms, I would

like to suggest that *even* encodes a procedure along the lines in (41):

(41) Process *S** in a context in which it is at the extreme end of a scale containing at least one assumption different from *S** in the element in the focus of *even* (S_j), such that the truth of *S** makes manifest or more manifest all assumptions on the scale.

Recall that, on Sperber and Wilson's (1986) definition, an assumption is manifest to an individual at a particular time if and only if, at that time, the individual is capable of representing the assumption and accepting it as true or probably true. This means that a speaker who communicates with an *even* utterance that the proposition expressed is true, also indicates that any S_js are likely to be true in the same context. In other words, the scale involved is one of pragmatic implication as understood by Sperber and Wilson (1986). If this analysis is correct, a speaker using *even* in an utterance that communicates the proposition expressed will not only be communicating *S** and any S_js but also the contextual assumption that ensures that *S** makes manifest or more manifest the S_js.

Let me illustrate this using (10) as an example. According to (41), *even* indicates that the proposition expressed (MAX_x TRIED ON TROUSERS_y) is at the extreme end of a scale of assumptions it makes manifest or more manifest.

(10) Even **Max** tried on the trousers.

Since an utterance of (10) actually communicates that Max tried on the trousers, that is, it indicates that the speaker thinks it is true, it also implies that the speaker believes that any S_js are true. As hinted at above, the speaker must have a reason for thinking that the truth of Max trying on the trousers makes manifest or more manifest the assumption(s) that other people did. This could be an assumption along the lines that Max is very reluctant to try on any garment so that his trying on the trousers would mean other people were highly likely to try them on too. As always, the hearer follows the relevance-theoretic comprehension strategy in accessing or constructing the scale of assumptions that is implied by the use of *even* and the contextual assumption that licenses the scale. That is, he will follow a path of least effort in accessing or constructing the scale, stopping when his expectation of relevance has been met. So, which (and how many) S_js and what contextual assumption the hearer infers depends entirely on what is easily accessible to him and what level of cognitive effects he is expecting. For instance, a hearer who knows

that Max went to the clothes shop with Moritz and Fritz and that Max hates trying on clothes, so that Max's trying on any garment gives a good indication of Moritz and Fritz also having tried it on, will have easy access to a scale containing the assumption in (42)–(44), and the contextual assumption in (45), which ensures that the truth of (42) makes manifest or more manifest the other two assumptions:

(42) MAX$_X$ TRIED ON TROUSERS$_Y$
(43) FRITZ$_Z$ TRIED ON TROUSERS$_Y$
(44) MORITZ$_Q$ TRIED ON TROUSERS$_Y$
(45) MAX$_X$ IS MORE RELUCTANT THAN MORITZ$_Q$ OR FRITZ$_Z$ TO TRY ON ANY GARMENT

In other words, the hearer will be highly likely to take the speaker as communicating not just that Max tried on the trousers, but also that Moritz and Fritz did and that Max is more reluctant to try on clothes than Moritz or Fritz.

If, on the other hand, the hearer doesn't know anything about Max (or the other two), he is most likely to infer nothing more specific than that there is someone else who tried on the trousers and that Max may not be that likely to try on trousers (or maybe any other garment), because the speaker must have a reason to believe that someone else must have tried on the trousers in any situation in which Max did. In the rest of this subsection I will show how this analysis can account for the full range of examples. Let me start with the problematic cases in (A)–(D).

I believe that my analysis correctly predicts that Susan's utterance in (A) is not felicitous in the envisaged scenario:

(A) Scenario: Everyone failed the exam.

Susan ?Even **Sebastian** failed the exam.

Here, a hearer familiar with the facts is most likely to have accessible a scale of assumptions containing not just SEBASTIAN$_2$ FAILED EXAM$_X$ and NEVILLE$_1$ FAILED EXAM$_X$ but also AUGUSTA$_3$ FAILED EXAM$_X$, JULIE$_4$ FAILED EXAM$_X$, … , APRIL$_7$ FAILED EXAM$_X$. The problem is that SEBASTIAN$_2$ FAILED EXAM$_X$ is not at the extreme end of such a scale – in the circumstances it only makes manifest or more manifest that Neville failed the exam, but it doesn't make manifest or more manifest the assumption that any of the others failed. In other words, the most easily accessible scale in this scenario isn't of the kind *even* indicates. Now, because the precise nature and content of the scale is only pragmatically inferred and not linguistically encoded, it should, in theory, be possible to adjust the scale to fit the

circumstances. However, getting to a scale on which SEBASTIAN$_2$ FAILED EXAM$_x$ is at the extreme end would require the hearer to discard all other assumptions apart from NEVILLE$_1$ FAILED EXAM$_x$. In the envisaged scenario that means discarding five assumptions, all of which are already manifest to the speaker. That, it seems, is too much processing effort for the hearer, and the utterance containing *even* feels unacceptable.

Susan's utterance in (B) is problematic for slightly different reasons:

(B) Scenario: Only April, Maynard and Neville have passed the exam.

Susan ?Even **Neville** passed the exam.

The problem here is that any hearer familiar with the group of students in question, will assume that the implied scale contains a set of assumptions ranging from NEVILLE$_1$ PASSED EXAM$_x$ to APRIL$_7$ PASSED EXAM$_x$, including all intermediate possibilities. This is plausible because on the basis of everyone's likelihood of passing exams, in any situation in which Neville passed, everyone else is likely to have passed, too. So, the speaker's communicating that Neville did pass will lead the hearer to conclude that all the others passed, too. However, this is not the case in the given scenario. In other words, Susan's utterance would be taken to imply something that isn't the case. If the hearer knows that only April Maynard and Neville passed, he will find Susan's utterance unacceptable. If he doesn't, he will be seriously misled in that he is likely to infer from Susan's utterance that Neville and everyone else in the group passed. This means that my analysis can deal with the examples that have posed problems for 'existential' accounts of *even*. Now, let me demonstrate that it can also handle (C) and (D), which are problematic for 'universal' accounts.

The problem (C) poses for universal accounts is that Susan's utterance is felicitous even though not everyone passed the exam:

(C) Scenario: Everyone except Neville passed the exam.

Susan Even **Sebastian** passed the exam.

It should be clear that my own account doesn't require that everyone must have passed the exam for her utterance to be felicitous. All *even* indicates is that SEBASTIAN$_2$ PASSED EXAM$_x$ is at the extreme end of a scale of assumptions such that it makes manifest or more manifest all other assumptions on the scale. Now, a hearer familiar with our group of students would know that NEVILLE$_1$ PASSED EXAM$_x$ is such that it would

make manifest all other assumptions, including SEBASTIAN$_2$ PASSED EXAM$_x$ and that the proposition expressed by Susan's utterance here is not at the extreme end of a scale containing NEVILLE$_1$ PASSED EXAM$_x$. I believe that the fact that the speaker chooses to utter something that expresses a proposition that isn't at the extreme end of the most easily accessible scale will lead the hearer to assume that the speaker is either unable or unwilling to assert the proposition that is at the extreme end. That is, he is likely to conclude that Neville didn't pass the exam, but that everyone else did. Susan's utterance is acceptable because there is an easily accessible scale of assumptions on which SEBASTIAN$_2$ PASSED EXAM$_x$ is the strongest, that is, one that doesn't contain NEVILLE$_1$ PASSED EXAM$_x$.

Finally, Susan's utterance in (D) is also acceptable although not everyone passed the exam:

(D) Scenario: Everyone passed the exam with the exception of April, who failed for mysterious reasons.

Susan Even **Neville** passed the exam. So, I can't understand why April didn't.

As mentioned above, I believe that a hearer familiar with the group of students who didn't know that April failed, would conclude from the first part of Susan's utterance here that everyone (including April) passed and the overt qualification in the second sentence is needed to make sure the hearer isn't misled. The problem for Lycan's account is that such a qualification should result in a contradiction, which it clearly doesn't. On my account, a hearer would initially be likely to conclude that April passed the exam, but this assumption would be merely an implicature that could be cancelled without contradiction. This holds in spite of the fact that the implicature arises as a result of the use of *even*, because *even* doesn't **encode** the implicature itself, but merely **constrains** the context in such a way that a hearer is likely to derive the implicature. The overt qualification simply results in the hearer's changing the accessed scale of assumptions from one that contains APRIL$_7$ PASSED EXAM$_x$ to one that doesn't. Unlike with (A), moving from the most easily accessible scale, which is not compatible with the encoded meaning of *even*, to one that is requires no more than that the hearer discard a single assumption that is at one extreme of the most accessible scale. It seems that the processing effort this requires is not so much as to render the utterance unacceptable.

So far, then, I have shown that my account of the procedure encoded by *even* can deal with the full range of non-conditional examples. It

remains to be shown that, and how, it can explain the properties of *even-if* conditionals.

First, let me consider (6), which carries a strong implication that the consequent is true:

(6) Even if you were the last man on earth, I wouldn't marry you.

As always, *even* indicates that the hearer is to process the proposition expressed (IF PETER_x WERE THE LAST MAN ON EARTH, MARY_y WOULDN'T MARRY PETER_x) in a context in which it is at the extreme end of a scale that is such that its truth makes manifest or more manifest all other assumptions on the scale. Now, it's relatively easy to see what other assumptions there could be on the scale. It could be anything from IF MARY_y WERE IN LOVE WITH SOMEONE ELSE, MARY_y WOULDN'T MARRY PETER_x to IF MARY_y COULDN'T STAND PETER_x, MARY_y WOULDN'T MARRY PETER_x, and so on. However, it is also relatively easy to access a context in which IF PETER_x WEREN'T THE LAST MAN ON EARTH, MARY_y WOULDN'T MARRY PETER_x is such that the truth of the proposition expressed by (6) makes it manifest or more manifest. The contextual assumption that a woman would (or should) marry a man she wouldn't otherwise consider marrying if he were the last man on earth is relatively easy to access for anyone who is familiar with conventional ideas about marriage and saving the human race through procreation. This contextual assumption licenses a scale on which IF PETER_x WERE THE LAST MAN ON EARTH, MARY_y WOULDN'T MARRY PETER_x is such that it makes manifest or more manifest the assumption that Mary wouldn't marry Peter if he were not the last man earth. In other words, Mary's utterance of (6) implicates that Mary won't marry Peter whether or not he is the last man on earth.

As mentioned before, if Jill utters (12) in a scenario in which she is discussing how unreasonably puritanical John's boss is, she won't be taken to implicate that John will be fired:

(12) Even if his wife smoked, his boss would fire him.

Again, the use of *even* indicates that the proposition expressed (IF JOHN_x'S WIFE SMOKED JOHN_x'S BOSS WOULD FIRE JOHN_x) is at the extreme end of a scale of assumptions and its truth makes manifest or more manifest any other assumption on the scale. Now, it isn't very easy to find a context in which IF JOHN_x'S WIFE DIDN'T SMOKE, JOHN_x'S BOSS WOULD FIRE JOHN_x is made manifest or more manifest by the proposition expressed (IF JOHN_x'S WIFE SMOKED, JOHN_x'S BOSS WOULD FIRE JOHN_x). That is, it isn't plausible that in

any situation in which Sue fires John if his wife smokes, she would also fire him if his wife didn't smoke. Instead, the range of assumptions made manifest or more manifest by the proposition expressed in this context will contain assumptions such as IF JOHN$_x$ SMOKED, JOHN$_x$'S BOSS WOULD FIRE JOHN$_x$ and IF JOHN$_x$ DRANK, JOHN$_x$'S BOSS WOULD FIRE JOHN$_x$. In other words, the hearer will not be justified to take the speaker to be communicating that John will be fired.

In this subsection I have proposed a procedural analysis of the meaning of *even*, which takes its cue from the scalar accounts of Fauconnier (1975) and Kay (1990) but is cast in relevance-theoretic terms. I hope to have demonstrated that this analysis can account for the full range of examples, both those involving *even* on its own and those where it is combined with *if*. Since my own analysis is scalar in nature, it's worth pointing out the crucial differences between it and the accounts of Fauconnier and Kay.

6.8.2 Distinguishing among scalar accounts

Of all the accounts discussed in this chapter, my own is closest to Fauconnier's (1975). Like him, I believe that *even* indicates that the proposition expressed is at the extreme end of a scale such that it pragmatically implies all other assumptions on the scale. Apart from the fact that my analysis is couched in relevance-theoretic terms and his isn't,[19] the only substantial difference between the two accounts is that he requires his scales to be scales of likelihood. In other words, he's fixed the contextual assumption that licenses the inference from the proposition expressed to the S_js to something like 'the proposition expressed is so unlikely to be true that its truth implies the truth of all the alternatives'. Because of this, as discussed in Section 6.7.1, Fauconnier has trouble explaining why (12) is acceptable and does not imply that John's boss will fire him. I have suggested in Section 6.8.1 that my own analysis does not encounter this problem. I believe that this is because my procedure in (41) does not require *S** to be the least likely proposition to be true, it merely requires it to be such that it implies all other propositions on the scale, for whatever reason.

The differences between my analysis and Kay's (1990) are more marked. As observed in Section 6.7.2, his account is close in spirit to the existential accounts of Bennett (1982) and Francescotti (1995), while my own is closer to universal accounts such as Lycan's (1991, 2001). For that reason, Kay has trouble dealing with examples (A) and (6), where I don't. The reason Kay might find it difficult to account for (D) is that his scale is one of entailment rather than pragmatic implication.

In sum, then, although my account shares its scalar nature with the analyses proposed by Fauconnier (1975) and Kay (1990), it is different from them in some crucial aspects that equip it to deal with the examples more fully. Furthermore, I have made explicit the central role pragmatics plays in the interpretation of *even* utterances (as it does, of course, for all utterances) and I have tried to spell out how the accessibility of contextual assumptions and S_j can affect the acceptability and interpretation of *even* utterances. I would argue that the analysis proposed in Section 6.8.1 should be preferred to the others discussed here on these grounds. However, there is at least one potential counter-example to my own account, as well as the others.

6.8.3 Potential counter-examples

The analysis I have proposed above shares with all the other analyses considered the assumption that a felicitous *even* utterance requires the existence (and/or truth) of at least one S_j. In fact, there are examples that cast doubt on this consensus position. For instance, many speaker/hearers feel that Susan's utterance in (46) is perfectly acceptable in the scenario described:[20]

(46) Scenario: No-one except Neville has passed the exam.

Susan Even **Neville** passed the exam, so I can't understand why no-one else did.

If this kind of example is really acceptable, it poses a problem not just for accounts that assume that the truth of at least one S_j must be a background assumption, shared by speaker and hearer at the time of utterance, but it also seems problematic for my own analysis. After all, I would say that *even* indicates that the truth of NEVILLE$_1$ PASSED EXAM$_x$ makes manifest or more manifest at least one S_j. However, it has to be noted that this is a far less strong requirement than that the truth of an S_j be presupposed. In fact, one might argue that, when making her utterance in (46), Susan does, indeed, believe that the truth of NEVILLE$_1$ PASSED EXAM$_x$ makes manifest or more manifest the assumption that the others passed too. It's just that, in this particular scenario, she knows that the inference doesn't go through. Indeed, the very fact that she says that she can't understand why the others didn't pass indicates that she would expect them to have passed, given that Neville did.

In fact, a similar situation holds in non-declarative *even* utterances, such as (47):[21]

(47) Did even **Neville** pass the exam?

None of the theorists whose analyses have been discussed so far consider the use of *even* in anything other than declarative utterances. It seems that many of them would not be able to account straightforwardly for non-declarative cases since such utterances don't have truth conditions and thus don't require the truth of the proposition expressed. In fact, the same problem is likely to arise for ironical and other non-literal utterances. In all these cases it's not only the case that the truth of *S** is not required for a felicitous utterance but it is also doubtful that any S_js have to be true. I believe that my analysis can account for this sort of example without any problems.

As always, the use of *even* indicates that the proposition expressed (NEVILLE_1 PASSED EXAM_x) is at the extreme end of a scale of pragmatic implication such that its truth makes manifest or more manifest the other assumptions on the scale. The only difference between (47) and its declarative counterpart in (48) is that the latter communicates the proposition expressed and thus also makes manifest or more manifest the other assumptions on the scale:

(48) Even **Neville** passed the exam.

(47), on the other hand, doesn't communicate the proposition expressed and so doesn't make the other assumptions manifest or more manifest. However, by her use of *even* the speaker is communicating that the proposition expressed, should it be true, would imply any other assumptions on the scale. In this way, the procedure in (41) is capable of accounting for the full range of examples, without modification.

So far in this chapter, I have reviewed much of the literature on *even* and ended by proposing and defending my own analysis, which I believe has the advantage over the other analyses discussed. Before moving on to the conclusion of this book, let me return to the question of concessives and concessive interpretations.

6.9 Concessivity revisited

At the beginning of Chapter 4, I argued that there is not much to be gained by first attempting to define a notion of concession or a concessive interpretation and then trying to analyse the meaning of certain expressions, such as *but, although* and *even if*, on the basis of that definition. Instead, I argued, one should start by analysing the linguistic meaning of such expressions and then see if there are any significant generalisations to be made. Now that I have proposed and discussed

analyses of *but, although* and *even if*, it should be possible to make at least some tentative generalisations.

The consensus in the existing literature[22] seems to be that 'concession' or a 'concessive' relation holds if an utterance (or, more generally, a piece of discourse) denies some expectation raised by earlier discourse. I believe I have shown in the last three chapters that *but* can be interpreted as indicating the denial of an expectation in some, but crucially not all, instances, while *although* and *even if* are better analysed in different terms. Therefore, 'concession' on the 'consensus' definition fails to capture the linguistic meaning of any of these expressions.

There is, however, something that *but, although* and *even if* share: they all have meaning which in some way involves the idea of negation or denial, though not the denial of anything as strong or definite as an **expectation** created by previous discourse. In the case of *but*, the denial is straightforward, since it is precisely denial that *but* signals. In the case of *although*, the denial is indirect: *although* indicates that the hearer is to suspend an inference, and this suspension could be seen as resulting in the denial of the conclusion that would have been reached had the inference gone through.

Linking *even if* with denial is rather less straightforward. Recall that I analysed *even* as encoding that the utterance should be processed in a context in which the proposition expressed (*S**) is at the extreme end of a scale containing at least one 'neighbour' proposition S_j, such that the truth of *S** makes manifest or more manifest any S_js. In the *even if* utterance in (49), for example, the use of *even* indicates that the truth of the proposition expressed (IF NEVILLE_X STUDIES ALL NIGHT, NEVILLE_X WILL FAIL EXAM_Y) makes manifest or more manifest at least one proposition of the form IF P, NEVILLE_X WILL FAIL EXAM_Y:

(49) Even if I study all night, I'll fail the exam.

As mentioned above, there must be an assumption that licenses the inference from the proposition expressed (IF NEVILLE_X STUDIES ALL NIGHT, NEVILLE_X WILL FAIL EXAM_Y) to the other assumption(s) on the scale (IF P, NEVILLE_X WILL FAIL EXAM_Y). In this example (and many others like it), a good candidate for the licensing assumption would be something along the lines of IF X FAILS AN EXAM IN CIRCUMSTANCES IN WHICH ONE WOULDN'T EXPECT X TO FAIL, X WILL FAIL THE EXAM IN OTHER CIRCUMSTANCES TOO. In other words, the proposition expressed is highly likely to deny an assumption that might be manifest to the hearer, namely that people who study all night will pass the exam they're studying for. Note, however, that this

denial is not what is encoded by *even*; it merely arises in one of a number of types of contexts that are compatible with the meaning of *even*. In other words, while *even-if* utterances may often be interpreted in a context that means the proposition expressed denies an assumption that may be manifest to the speaker, this is by no means always the case.

The above discussion highlights an interesting and important difference between *but* and *although*, on the one hand, and *even if*, on the other. In the case of the former, where there are two clauses, one of them could be seen as (directly or indirectly) denying or cutting off an implication of the other. In the latter, on the other hand, the combination of the two clauses may deny an assumption that links the antecedent with the negation of the consequent. Where an *even-if* utterance is interpreted as a denial, however, it is like utterances containing *but* or *although* in that two assumptions are presented as (potentially or actually) holding at the same time against a background of assumptions that would justify the expectation that only one of them holds at any one time. If there is such a thing as a 'concession' relation, or a 'concessive interpretation', then I think it's something like this: the speaker is (explicitly) communicating the simultaneous truth of two assumptions along with a contextual assumption that would justify the conclusion that only one of the explicitly communicated assumptions can hold at any one time. However, I don't believe that this definition provides anything more than an interesting generalisation and a possible starting point for the analysis of further broadly 'concessive' expressions, such as *yet, still, nevertheless, though* and others. Ultimately, each of these will still have to be analysed in its own right. It is a further consequence of this view that there is nothing intrinsically concessive about *even-if* utterances – a concessive interpretation is merely one of a range of interpretations compatible with the meanings of *even* and *if*.[23]

This concludes the discussion of the 'concessive' expressions *but, although* and *even if*, which I have used to show how the cognitive approach of Relevance Theory can deal with so-called 'non-truth-conditional' expressions. It remains to summarise the main arguments of this book and highlight its most important claims. This I will do in the conclusion.

Conclusion

The focus of the first part of this book was on the phenomenon of meaningful linguistic expressions whose semantics cannot be captured in traditional truth-conditional terms. I argued that: (a) the notion of truth conditions is neither a necessary nor a sufficient tool in accounting for linguistic meaning; and (b) there is no such thing as a semantic distinction between 'truth-conditional' and 'non-truth-conditional' expression types. Instead, I claimed, linguistic meaning should be accounted for in the cognitive terms proposed by Sperber and Wilson's Relevance Theory. On that approach, there is a cognitive distinction between types of linguistic meaning: conceptual expressions map on to mental representations; procedural expressions encode constraints on mental computations. I showed in Section 3.6 that not all allegedly 'non-truth-conditional' expressions fall on the same side of the conceptual/procedural distinction: some of them encode conceptual information, while a large majority encode procedural information. In the second part of the book, I examined a small subset of 'non-truth-conditional' expressions, namely the 'concessives' *but*, *although* and *even if*, all of which I analysed in procedural terms.

In this conclusion I will first consider whether and how the cognitive approach to linguistic semantics of Relevance Theory, with its conceptual/ procedural distinction, meets the criteria of compositionality and semantic innocence discussed in Chapter 1. I will then ask whether any further generalisations can be made about the nature of procedural meaning, in addition to the observations in Section 3.3.3, and I end with some remarks about future directions research on procedural meaning might fruitfully take.

Semantic innocence, compositionality and cognition

I argued in Chapter 1 that truth-conditional (and, indeed, other truth-based) approaches to linguistic semantics are not able to maintain

compositionality and semantic innocence at the same time, because truth conditions are always context dependent. In other words, truth-conditional approaches to linguistic meaning cannot maintain both the principle that the meaning of a complex expression is entirely determined by the meanings of its constituents and their manner of combination (compositionality) and the principle that the linguistic meaning of any given expression is stable across all contexts (semantic innocence).

Equating the linguistic meaning of an expression with its contribution to truth conditions, while maintaining compositionality and the claim that sentence meanings are truth conditions, comes at the cost of semantic innocence: expressions such as *he* or *today* make different contributions to truth conditions in different contexts. At the same time, insisting that an expression's contribution to truth conditions is stable across contexts (and thus maintaining semantic innocence) makes it impossible to account for the meanings of sentences (that is, their truth conditions) compositionally: if *he* always contributes 'a certain male' to the truth conditions of the utterances in which it appears, the truth conditions (which are supposed to be the linguistic meaning) of Mary's utterance in (1) are no longer determined entirely by the meanings (that is, the contributions to truth conditions) of its parts and the manner of their combination.

(1) *Peter* Where is Jack?
Mary He's on his way.

In Section 1.4, I hinted that a an approach to linguistic meaning in terms of cognitive encodings rather than truth conditions would make it possible to maintain both semantic innocence and compositionality. I am now in a position to explain how the relevance-theoretic approach can do this.[1]

The cornerstone of this explanation is the fact that linguistic meaning is not seen in truth-conditional, but in cognitive, terms. That is, on the RT approach the meaning of a linguistic expression is a conceptual representation or a procedure; the meaning of a sentence is a structured conceptual representation, with procedures attached to it.[2] Given this picture, there is absolutely nothing problematic about saying that the contribution an expression (whether it be conceptual or procedural, or both) makes to the meaning of the sentences in which it occurs is stable across contexts: the word *he* always contributes the same procedure to sentence meaning (namely something along the lines of 'find a singular

male referent'); the word *bachelor* always contributes the concept BACHELOR to the logical form encoded by he sentence. By the same token, there is nothing problematic about saying that the meaning of a sentence is determined entirely by the meanings of its constituents and their manner of combination – it's just that the meaning of the sentence is something rather more incomplete and abstract than a truth condition or a proposition.

Having addressed the question of compositionality and semantic innocence, there is still more to be said about the relevance-theoretic alternative to truth-conditional linguistic semantics, particularly about procedural meaning. To this I now turn.

Procedural meaning

I said in Section 4.3.2 that it would only be possible to make more precise observations about the nature of procedural meaning once a number of expressions with procedural meaning had been analysed. In the last three chapters, I have proposed procedural accounts of three different linguistic expressions: *but*, *although* and *even*. The three procedures are repeated in (2)–(4):

(2) ***but***
Process what follows (that is, *Q*) as a denial of a manifest assumption.

(3) ***although***
Suspend an inference from what follows (that is, *P*) which would lead to a conclusion that would have to be eliminated.

(4) ***even***
Process *S** in a context in which it is at the extreme end of a scale containing at least one assumption different from *S** in the element in the focus of *even* (S_j), such that the truth of *S** makes manifest or more manifest all assumptions on the scale.

It should now be possible to say a little bit more about the nature of procedural meaning by comparing these procedures.

It is relatively easy to see what the procedures encoded by *but* and *although* have in common. Both of them essentially indicate what inferential path the speaker intends the hearer to take in deriving the **implicatures** of the utterance. That is, it is clear that *but* and *although* both affect the implicit side of communication.

Even, on the other hand, seems slightly different. Rather than indicating to the hearer which inferential path the speaker intends him to take, *even* indicates the nature and range of assumptions comprising the context in which the speaker intends the hearer to process her utterance. At least in principle, this constraint on contextual assumptions might not only affect the inferential processes involved in the derivation of **implicatures**, but also those involved in deriving **explicatures**. Whether that is the case for *even* is not clear, however. Recall the observation made back in Section 3.6.7 that *even* seems capable of making a difference to the proposition expressed by an utterance containing it, for instance in (5):

(5) Mary was annoyed that John even ate the cake.

The fact that *even* constrains context, which plays a role in all pragmatic processes whether they result in explicatures or implicatures, may explain this flexibility of *even* to affect explicit or implicit communication.

Summing up, the analyses given in the last three chapters point towards the existence of two distinct types of procedural meaning: there are procedures that highlight an inferential path and there are procedures that highlight contextual assumptions. Of course, inferential paths and contextual assumptions don't exist independently of each other. Pursuing a particular inferential path will necessarily involve accessing a certain range of contextual assumptions, and accessing a particular range of contextual assumptions will allow an individual to pursue certain inferential paths and not others. In other words, what both types of procedure have in common, as predicted by Blakemore (1987), is that they constrain the inferential processes involved in deriving the intended interpretation of an utterance, thereby saving the hearer the unnecessary processing effort of going down an inferential path not intended by the speaker. *But* and *although* constrain these inferential processes directly by indicating a particular inferential route, while *even* places an indirect constraint on inference by making certain contextual assumptions more accessible than any others. It will be interesting to see in future research whether all procedural meaning falls into one of these two categories.

A further question of considerable interest concerns the encoded meaning of the natural language equivalents of the logical operators ¬, &, ν, and →, namely *not*, *and*, *or* and *if … then* and how they fit into this conceptual/procedural framework. Furthermore, there are some important questions regarding the syntax–semantics interface level of logical form, such as what determines how many logical forms an utterance

encodes, or, indeed, what exactly constitutes an utterance or processing unit for the relevance-theoretic comprehension strategy. These questions are crucial to a full understanding of how procedural meaning may constrain pragmatic inference. Finally, as shown in the last three chapters, *but*, *although* and *even* constrain the inferential processes that result in the recovery of **implicatures**. It seems worth investigating further the nature of the procedural meaning encoded by pronouns (and, conceivably, illocutionary and attitudinal particles), which constrains the inferential processes that lead from the logical form(s) of an utterance to its **explicatures**. Studying the similarities and differences between these two 'functionally' different kinds of procedural meaning will ultimately deepen our understanding of procedural encoding in general and of its role in utterance processing.

Notes

Chapter 1 Linguistic meaning and truth conditions

1. In fact, there are not many theories that have done away with the notion altogether. As discussed in Iten (2000a), Anscombre and Ducrot's (1986) Argumentation Theory is one of the few.
2. Because I will ultimately argue that the 'truth-conditional'/'non-truth-conditional' distinction is not the right way of distinguishing between types of linguistic meaning, I continue to use inverted commas around the expression *non-truth-conditional*.
3. In other words, I'm equating semantics with linguistically encoded meaning and pragmatics with meaning that is derived inferentially, irrespective of its truth-conditional status. This is the standard relevance-theoretic semantics/pragmatics distinction. For a discussion of how this compares with other approaches to the distinction, see Carston (1999a).
4. The way in which compositionality and semantic innocence are interpreted in truth-based frameworks does differ from the interpretation adopted within the cognitive approach taken in later chapters. For a deeper discussion of these issues, see Powell (2000, 2002).
5. Frege's views will be discussed in more detail in Chapter 2.
6. Though note the dissenting voices of Anscombre and Ducrot referred to in note 1 above. Ducrot (1993) expresses this view particularly clearly.
7. There is some doubt as to whether it is a necessary condition for the truth of this sentence that the entity referred to actually is female. It seems more accurate to say that the entity should be seen or represented as female (think of ships, cars and computers being referred to by *she*).
8. Although this is an assumption shared by many theorists, there are a notable few who would demur. For instance, Cappelen and Lepore (2004) and Borg (forthcoming) take the view that this kind of sentence does express a complete proposition that is not, however, identical to anything a speaker would ever intend to communicate by its utterance. This kind of view will be discussed in more detail below.
9. Here, and throughout, the subscripts 'x', 'y', and so on, are intended to indicate that the concept in question is one of a specific individual or object. For instance, SUE_x is a concept of a particular person, not just of anyone called 'Sue'. Small capitals are used to distinguish propositions (which I will argue later should be construed as conceptual representations) from linguistic forms, which will be represented in italics in the main text and not marked at all in numbered examples.
10. One could, of course, dispute this and claim that sentences containing indexicals can be given truth conditions out of context. For instance, one might maintain that (7) is true if and only if some female likes chocolate. Carston (2002, pp. 61–4) has a detailed discussion of two versions of this view; according to the first, an indexical such as *she* contributes to the proposition

expressing the content 'some female'; while, according to the second, this is simply entailed by the encoded meaning of the indexical. See Carston's discussion for compelling arguments against both versions of the view, which I will not pursue further here.

11. In order to avoid further complications, I am, for the moment, glossing over the role played by indexicals in some of these examples.
12. As far as I am aware, no-one actually takes this approach. I am merely mentioning it for the sake of completeness.
13. This holds of all context-dependent expressions, with the possible exception of so-called 'pure' indexicals, that is *I, here* and *now*. More will be said about the distinction between pure indexicals and other types of indexicals.
14. Gross (1998/2001, ch. 3) considers in detail whether and how truth-conditional theories of semantic competence can account for the pervasive context sensitivity of natural language. He, too, reaches the conclusion that truth-based approaches to natural language semantics will find it extremely difficult to do these facts justice.
15. The discussion here belies the fact that it is not always straightforward to say whether and how a particular linguistic expression affects the truth-conditional content of its host utterances. This difficulty and possible solutions to it will be discussed further in Chapter 3.
16. For further discussion, see Powell (2000, 2002).
17. In this and all following examples in this section, where possible the linguistic elements under discussion will be italicised for easy identification.
18. See, for example, Frege, Grice and more recently Wilson (unpublished a).
19. There may be a good case for the meaning of the definite article *the* having 'non-truth-conditional' meaning. See Powell (2000, 2001). The topic of definite descriptions is a complex one and cannot be done justice in the context of this book, which is another good reason for leaving them out of the discussion here.
20. I am using *request* for want of a better word. I am not claiming, and do not believe, that all uses of imperative sentences constitute acts of requesting.
21. As far as questions are concerned, this needs some qualification. Only yes-no questions express complete propositions, the propositions wh-questions express are incomplete.
22. A detailed discussion of sentential adverbials of all kinds can be found in Ifantidou (2001).
23. It's not entirely clear that these particles are part of the language system at all. In other words, it's not clear that they have any encoded linguistic meaning at all. However, if they do, their meaning is certainly 'non-truth-conditional' and for this reason I'm including them here. For a fuller discussion of this issue, see Wharton (2000; 2003a, b).
24. It might not be immediately clear why *huh* is grouped together with *eh* here: *huh* seems to indicate that the speaker is distancing herself from the propositional content of the utterance. Thus, *eh* and *huh* share the feature of indicating that the speaker is not communicating the proposition expressed by the utterance: in the case of *eh* this proposition is being questioned, while it is being presented as untenable or ridiculous by the use of *huh*.
25. This statement will be qualified, or at least questioned in Section 3.6.7.

26. Bach (for instance, 1994, 1999) would not agree with this. According to him, connectives of the sort discussed here are part of 'what is said' or the truth-conditional content of the utterances in which they occur. His views are discussed in more detail in Chapter 2.
27. Blakemore (2000, 2002) has an interesting discussion of the similarities and differences among *but, however* and *nevertheless*.
28. I will argue in Chapters 4 and 6 that there is no such thing as an *a priori* natural class of concessive connectives. The convenient label used here should be taken as nothing more than that.
29. The problem of classifying adverbials of this sort as 'truth conditional' or 'non-truth-conditional' is highlighted by the fact that some theorists, for instance Lycan (1984), give truth-conditional accounts for them, while the speech-act tradition of authors such as Urmson (1963) treats them in 'non-truth-conditional' terms.

Chapter 2 Approaches to 'non-truth-conditional' meaning

1. A fuller explanation of Frege's notion of 'thought' will be given below.
2. As Miller (1998, p. 33) points out, it is important to recognise that Frege's notion of thought is neither subjective nor psychological. On this picture, thoughts are abstract entities.
3. Note that for Frege a concept is a function whose value is always a truth-value (Miller, 1998, p. 15).
4. For further discussion of the notion of truth conditions and our intuitions about them, see Section 3.5.
5. This certainly seems to be true for yes/no questions. However, as mentioned in Chapter 1, in the case of wh-questions it is more likely that the related proposition is incomplete and can, therefore, not be given a complete truth condition.
6. That is certainly true on Frege's account. It will be seen in Chapter 4 that not all theorists would agree.
7. It is clear from the German original that *mean* here should be understood as *refer to*.
8. This seems all the more likely, given that we often know the meaning of a sentence without knowing whether it is true or false.
9. *Yesterday* is a member of the special class of 'pure indexicals', briefly discussed in Section 1.5.1. I'm using *yesterday*, rather than *he* or *her*, as an example for simplicity's sake.
10. As with all so-called pure indexicals, this isn't true of absolutely every use of *yesterday*. In direct quotations and figurative uses, for instance, the indexical can refer to a day (or even a longer period) other than the day before the utterance, see, for instance, (i) and (ii).

    (i) Mary said: 'I drank far too much yesterday'.
    (ii) Yesterday, all my troubles seemed so far away.

11. Kaplan doesn't say which of these two options he prefers. Personally, I find the first slightly more appealing than the second, because it leaves the possibility of distinguishing two kinds of validity: logical (defined in terms of truth) and expressive (defined in terms of information delimitation).
12. With the possible exception of non-declarative sentence types, which Kaplan doesn't discuss.
13. Stalnaker (1974/1991) would not agree with this. According to him (1974/1991, p. 475): 'On the semantic account, presupposition and entailment are parallel and incompatible semantic relations. A presupposes that B if and only if B is necessitated by both A and its denial. A entails B if and only if B is necessitated by A but *not* by its denial' (Stalnaker's emphasis). On this view, entailment and presupposition are mutually exclusive.
14. Indexicals are a possible exception to this: it is at least conceivable that the use of *he*, for instance, logically presupposes that the referent is male. Though note the reservations voiced in note 7 of Chapter 1.
15. See Wilson (1975) for a very similar line of argument on the pragmatic origin of certain presuppositions.
16. The subscript *x* is meant to indicate that a specific field is being referred to.
17. See Recanati (1987, pp. 258–60).
18. It should be noted that this is meant to amount to (encoded and inferred) truth-conditional content plus encoded 'non-truth-conditional' content (see Recanati, 1987, p. 248).
19. It is important to note at this point that Recanati (1987) does not regard explicit performatives as force-indicating devices in this sense. According to Recanati (1987), utterances of sentences containing explicit performatives are only indirectly performances of the illocutionary acts described by the performative.
20. Of course, this is a gross oversimplification of what the interrogative mood encodes, but for present purposes it is all that is needed. For a more detailed treatment of the interrogative, see Section 3.6.3.
21. Lycan (1999, pp. 108–12) argues convincingly that this enterprise is doomed to failure. Grice ultimately has to give up the idea that speaker meaning alone can explicate sentence and word meaning and, in effect, ends up with a traditional truth-conditional theory of meaning.
22. The proviso in question is that Grice sees what is said as part of what is meant. Therefore, not every proposition expressed by an utterance counts as what is said. For instance, the proposition expressed by ironical utterances or a metaphorical utterance like *John is a lion* does not count as what is said, because it is not part of what the speaker of the utterance means.
23. Grice (1968/1989, pp. 118–19) only mentions these two, but it can be assumed that asking questions also counts as a central speech act.
24. As Blakemore (2000; and 2002, p. 48) points out, there is something odd about applying the notion of speech act to such a thing as 'adding'. Rieber (1997) proposes an alternative account of conventional implicature that overcomes some of the problems encountered by the Gricean non-central speech acts of adding, explaining and contrasting. However, Blakemore (2002, pp. 49–53) shows that Rieber does not succeed in proposing a viable account of the meanings of 'non-truth-conditional' connectives.
25. It's unclear in what terms Grice would want to account for the linguistic meanings of indexicals.

26. Given that Grice himself analyses conventional implicatures in terms of higher-order speech acts, it is somewhat baffling that Bach argues against such a notion at the same time as analysing the meaning of a number of expressions in terms of higher-order speech acts. So, the main import of his position is that a small subset of Grice's conventional implicature cases are really part of what is said.
27. Neale (1999, p. 58) also makes this observation. For a full discussion of the range of interpretations *but* can receive, see Chapter 4 of this book.
28. As will be seen in the next chapter, Bach (1999) and Neale (1999) both independently reach this conclusion.
29. The discussion has omitted any mention of Anscombre and Ducrot's (1983, 1986, 1989) Argumentation Theory, which starts out by accommodating 'non-truth-conditional' linguistic meaning in a truth-conditional framework but ends up as a radically 'non-truth-conditional' approach. For an in-depth discussion the reader is referred to Iten (2000a).

Chapter 3 Relevance Theory and 'non-truth-conditional' meaning

1. There may well be more ways in which new information can interact with old. For instance, it's conceivable that some new information, rather than giving rise to a contextual implication, strengthening or contradicting and eliminating existing assumptions, leads to a reorganisation in the information already stored in the memory. More emotional types of effects, such as making somebody feel good, are also conceivable. However, the three types of effects described above are those usually cited in the literature.
2. The terms *hearer* and *speaker* are used in place of the more cumbersome *addressee* and *communicator*. I'm using *speaker* to refer to writers and non-verbal communicators as well as bona fide speakers. The same goes, *mutatis mutandis*, for the terms *hearer* and *addressee*.
3. These are the last two lines of W. B. Yeats's poem *No Second Troy*. I'm grateful to Anne Golden for suggesting this poem as a good indicator of Irishness.
4. Joan's utterance in (7) is very similar to an example from Searle (1965/1996, p. 115). In this example, an American soldier captured by the Italians in World War II utters 'Kennst du das Land, wo die Zitronen blühen?' ('Do you know the land where the lemon trees bloom?') in order to convince them that he is a German officer. Searle argues that the soldier shouldn't be seen as having meant_{NN} that he is a German officer by his utterance of 'Kennst du das Land …', even though Grice's definition of that notion would predict that he has. In fact, I don't believe that there is anything wrong with saying that the soldier meant_{NN} this. After all, it is his intention to inform the Italians that he is a German officer with his utterance. This sort of example is only truly problematic if one wishes to explain linguistic meaning in terms of meaning_{NN}. See Lycan (1999, pp. 108–13) for a good brief overview of the overwhelming problems this enterprise encounters. Whatever the truth about meaning_{NN}, I would certainly want to say that, if successful, the soldier has ostensively communicated that he is a German officer, much in the same way in which Joan ostensively communicates that she is Irish by her utterance in (7). For a detailed

discussion of the differences between Grice's notion of meaning$_{NN}$ and the relevance-theoretic notion of ostensive communication, see Wharton (2003b).

5. As discussed by Sperber (1994a), exactly what this expectation of relevance is for any given communicative exchange depends on a number of factors, including assumptions of the hearer concerning the competence and benevolence of the speaker.
6. For a more detailed account of how hearers work out what speakers intend to communicate, according to the RT framework, see Wilson and Sperber (2002).
7. Indeed, it has been argued that the systems that perform these pragmatic inferences do not bear all of the functional or architectural hallmarks of Fodor's (1983) input modules. However, they are relatively fast and domain specific and thus can be argued to be 'modular' in a different way (see, for example, Sperber, 1994b). The question of whether and how pragmatic processes are modular is not central to my concerns here and I will not pursue it further.
8. What is communicated must be fully propositional because it is hard to see how a speaker could have informative and communicative intentions with sub-propositional contents.
9. Blakemore also sometimes puts this differently, saying that *so* indicates that what follows is a conclusion derived from an accessible assumption in the context. Obviously, in (17) the proposition expressed by (a) will be such an accessible assumption in the context of (b). This reformulation allows for cases in which *so* is uttered discourse initially, that is, where nothing is communicated before the utterance introduced by *so*.
10. What I say here about the accessibility to consciousness of conceptual linguistic meaning seems to be in direct opposition to Recanati's (1993, p. 246) claim that linguistic (sentence) meanings are not directly accessible to consciousness. This could be a superficial disagreement which stems from the fact that Recanati considers whole sentence meanings, which almost inevitably involve some procedural meaning and thus are not accessible to consciousness as a whole. Alternatively, the disagreement might go deeper and Recanati, who maintains that linguistic meanings of sentences are 'very abstract', might (as I believe mistakenly) view all linguistic meaning in procedural terms.
11. This example should also illustrate that the claim that conceptual representations are truth evaluable and that (most) linguistic expressions encode conceptual representations does not amount to a *de facto* truth-conditional account of linguistic meaning: As pointed out in Chapter 1, truth-conditional accounts of linguistic meaning rely on the assumption that sentences can be given truth conditions. The claim that sentences encode conceptual representations that have truth properties does not rely on this assumption. As the following example shows, even clearly non-propositional expressions are truth evaluable in the sense intended here:

    (i) [C is clearly looking for her glasses]

        A On the table.
        B That's not true – they're in your bag.

12. This is slightly oversimplified. In fact, Mary is most likely to have communicated something like SUSAN$_x$ HAS BEEN TO MUNICH RECENTLY. It's unlikely that

Mary will be taken to have communicated that Susan's been to Munich at some point in her life (maybe when she was a baby).

13. See note 8 above.
14. If, as suggested in note 12, what Mary communicates explicitly is something like SUSAN$_x$ HAS BEEN TO MUNICH RECENTLY, the developments of the logical form involved would include enrichment along with reference assignment.
15. Note that this speech act description itself is derived partly by decoding (of the syntactic inversion) and partly by pragmatic inference. More will be said about the relevance-theoretic treatment of non-declarative sentence types below.
16. Whether such a notion is needed on the relevance-theoretic view is the topic of Section 3.5.
17. See Sperber and Wilson (1998, pp. 193–4) and Wilson and Sperber (2002, p. 609).
18. Note that, for Recanati, 'what is said by the utterance' = 'the (intuitive) truth-conditional content of the utterance'. In more recent work Recanati (2001, 2003) distinguishes between minimal and maximal 'what is said'. The minimal notion includes the result of all and only linguistically mandated pragmatic processes, what he calls processes of 'saturation' (roughly, reference assignment). The maximal notion is the same as his earlier notion of what is said, that is, the intuitive truth-conditional content of the utterance, which is arrived at via saturation and free enrichment.
19. For a detailed discussion of the Availability Principle, see Carston (2002, pp. 166–9). She also discusses the scope test and related matters (2002, pp. 191–7).
20. Neale (1999, p. 56) and Bach (1999, p. 345) both note that intuitions on the truth conditions of such utterances vary greatly. More will be said about their approaches below.
21. This qualification is necessary because the concept communicated by an utterance containing the verb *kiss* is not always the encoded KISS – just as with the example of *bachelor* discussed in the first chapter, the communicated concept may be a pragmatically adjusted version of the encoded concept.
22. Indexicals also highlight a problem for Bach's IQ test, discussed in Section 2.5.4. According to Bach (2001), 'what is said' is determined only by what is linguistically encoded by the utterance plus narrow context (for instance, speaker and time of utterance) and speaker intentions don't enter into the picture at this level. Since the linguistic meaning of *she* is 'a certain female', on Bach's account, and speaker intentions are crucial for reference assignment in this case (*she* isn't a pure indexical), 'a certain female' must be what appears in 'what is said'. Therefore, if the IQ test is right, it should be possible to report Joan's utterance of *She likes chocolate* as *Joan said that a certain female likes chocolate*. Clearly, this isn't an adequate report of the utterance and the result of the IQ test doesn't tally with Bach's account of the pronoun *she* (and any other non-pure indexicals).
23. Obviously, this holds only for mood indicators on main clauses. Subordinate clauses, on the whole, don't have their own explicatures (but see Section 5.4.2).
24. Again, aphasias would seem to be a promising source of evidence: if a population were capable of interpreting and producing smiles, frowns and interjections but no clearly linguistic items, the hypothesis that interjections are not linguistic would be supported. Conversely, if interjections fell on the

same side as clearly linguistic items, they would be more likely to be linguistic themselves.

25. This is a very rough characterisation of what goes on here. For a more detailed discussion of focus-related phenomena in the framework of RT, see Sperber and Wilson (1986, pp. 202–17).
26. I'm grateful to Robyn Carston (personal communication) for these examples.

Chapter 4 Denial, contrast and correction: the meaning of *but*

1. Once again, Bach (1999) is an exception in that he treats at least some 'concessives' as contributing to 'what is said' on at least some occasions.
2. In these, as in most (possibly all), examples *even though* can replace *although* without making any difference to the interpretation. For the rest of the book, unless otherwise stated, any example with *although* would work equally well with *even though*.
3. This is demonstrated by the many taxonomic attempts in the literature (for instance, Quirk et al., 1972; Halliday and Hasan, 1976; Mann and Thompson, 1986, 1988; Hovy and Maier, 1994; Rudolph, 1996; Bell, 1998).
4. See, for instance, Mann and Thompson (1986) and the evidence presented below.
5. This is leaving aside the 'exception' use of *but* on which it combines with universal quantification, as in:

   (i) Everyone but Bill came to the party.

6. Throughout the literature *P* and *Q* are used to stand for both linguistic clauses and propositions expressed. I am largely adhering to this convention in this and the next two chapters. Wherever the difference between the linguistic material and the proposition expressed is crucial, I state explicitly what is meant (on the whole, *P* and *Q* are reserved for linguistic clauses in those circumstances, and different labels are used for propositions).
7. As a matter of fact, Blakemore (1987, p. 138) argues that 'contrast' uses of *but*, too, involve the denial of an assumption. From this, Foolen (1991, p. 84) concludes that Blakemore (1987) argues for a reduction of contrast *but* to denial of expectation *but*. Later she (1989) seems to want to distinguish the two uses of *but*, but in her most recent work she (2002) moves back to her initial position.
8. Again, such a reading is conceivable. For instance, *the onions are fried* could be taken to imply that everything else will be fried too.
9. In fact, A & D (1977, p. 39) ultimately translate this condition into the claim that uttering *P* $mais_{SN}$ *Q* amounts to the performance of a single speech act, while an utterance of *P* $mais_{PA}$ *Q* involves the performance of two distinct speech acts. Blakemore's (1989) account of *but* – to be discussed in Section 4.8.1 – echoes this claim.
10. On Carston's (1996b, pp. 322–5) view of metalinguistic negation, there is nothing surprising about it being used to object to the propositional content of an utterance (actual or potential). However, note that Carston (1999b, p. 379)

distinguishes two types of 'echoic' negation: 'metalinguistic' and 'metaconceptual'. The former is used to object to an aspect of form, the latter to an aspect of content. So, she would describe the negation here as 'metaconceptual' rather than 'metalinguistic'.

11. In what follows I will largely ignore the difference between polysemy and ambiguity. My justification for this is that, from a cognitive point of view, it seems to make very little difference whether one claims that there is one lexical item with several distinct senses or that there are several different homonymous lexical items – both versions amount to several items, either meanings or lexical items, being stored in the mental lexicon. At the same time, in the case of a polysemy there must be a shared core by which the different meanings are related. To the extent to which there must be a single core that links all meanings of a polysemous item, a polysemy account is not appreciably different from one that assumes homonymy. For a discussion of polysemy in almost entirely pragmatic terms, see Papafragou (2000).
12. See Dascal and Katriel (1977) on *aval* and *ela*.
13. Of course, as with many of the English examples given, there is an interpretation on which an utterance of this would be perfectly acceptable. For example, in a scenario in which B has to finish an assignment by the next day and A has just told B that that's impossible, B could utter (54) using *but* to express a denial of expectation: *it's impossible* could imply that B won't try to finish the assignment, while *it's necessary* would imply that she will.
14. Unlike its English counterpart, this sentence isn't acceptable in any context.
15. I would argue that this is even true for (24). Consider the scenario in (i):

    (i) *A* If your sister here, or another close relative, co-signs, you can get a loan.
    B That is not my sister but my mother.

    Here, it seems both interpretations apply simultaneously: the first clause implies that the woman who is present won't be able to co-sign, while the second implies that she will. At the same time, B is clearly correcting A's mistaken assumption that the woman present is A's sister.
16. As Blakemore (2002, p. 54) observes, Bach's account of what he calls 'utterance modifiers' (such as *moreover*) seems, however, to be more or less identical to Grice's account of conventional implicature. This seriously undermines his attempt to do away with the Gricean notion of conventional implicature.
17. For a more detailed discussion of Bach's (1999) approach to 'non-truth-conditional' meaning, see Section 2.5.4 above, Blakemore (2002, pp. 53–8) and Hall (2004).
18. Neale's (1999, pp. 58–9) view of *but* is very close to Bach's. He, too, believes that the 'contrast' encoded by *but* is only vague and has to be pragmatically enriched on particular occasions of use. As mentioned in Section 2.5.4, the two also agree on the issue of a single sentence expressing multiple propositions.
19. Of course, in a trivial sense of the word, *but* and *and* are both 'compositional'. That is, they both combine with other linguistic elements to form sentences. The kind of compositionality at issue here crucially involves the interaction of meanings modifying each other.

20. Note that, given this criterion, A & D's account of *mais* also counts as a functional view.
21. For instance, *but* would be acceptable in (95) if the first clause is understood as implying that Peter will live in a capital city too – an implication that is denied by the *but* clause. This becomes clearer if the example is changed to the following:

    A John and Peter don't live in the same place, do they?
    B No. John lives in Hampstead but Peter lives in Peckham.

    In this example, *but* is acceptable because *John lives in Hampstead* might give rise to the assumption that Peter will live in an expensive area of North London too. This assumption is denied by *Peter lives in Peckham*.
22. However, as will be seen below, she also considers utterance- and communication-initial uses of *but*.
23. From a communicative point of view, it's hard to see how it could be relevant to the hearer that a certain assumption that is not manifest to him is to be eliminated, unless there's some danger that the assumption might, at some point, have become manifest to him. Examples of this sort will be discussed below.
24. Blakemore (2002, pp. 110–13) seems to agree with the view that correction uses of *but* are compatible with an analysis according to which *but* encodes the denial of a manifest assumption. However, her explanation isn't explicitly the same as the one given here.
25. Hall points out that this is in fact identical to the procedure Iten (2000b, 2000c) proposes for *although*. Since the same account will be introduced and defended in the next chapter, I will largely leave the discussion of the difference between *but* and *although* to Chapter 5.

Chapter 5 Concession and denial: the meaning of *although*

1. In fairness to Hall, she does recognise that there are syntactic differences between the two. Thus, she maintains that '*although* encodes the same constraint as *but* (but reversed)' (2004). It will be seen below that I believe that the difference between *but* and *although* runs deeper than that.
2. This sentence might not strike the reader as acceptable – at least at first, it seems to suggest that Peter has the power to influence the weather (that is, that the non-logical implication is 'Normally, if Peter goes out, it isn't raining'). I will discuss this type of example at some length later on in this chapter. For the moment, I'd like to point the reader to (7) for an interpretation of this combination of *P* and *Q* that might strike them as more acceptable.
3. For a discussion of further tests that distinguish between subordinate and coordinate clauses, see Rouchota (1998b, pp. 45–7).
4. Note that *even though* can generally replace *although* without a change in meaning. However, some people feel that the use of *even though* always makes a 'direct denial' interpretation more accessible. For them, utterances like *I need some fresh air even though it's raining* border on the unacceptable. I'll leave

the question of whether *although* and *even though* are synonymous for another time.

5. However, there might be something amounting to discourse *although*. Exchanges like that in (i) can sometimes be observed:

   (i) *A* This is a really nice house.
   B Although, I'm not sure that it's structurally sound.

   Of course, this could be a performance error or a shift in use.
6. Even if concessivity and causality were duals, it's doubtful whether this account, couched in purely logical terms, would shed any light on the relation's cognitive import.
7. Recall, however, that Bach (1999) would see *although* as contributing to what is said, at least on some of its uses, because it passes his IQ test. For instance, an indirect quotation along the lines of *John said that Peter went out although it was raining* is perfectly acceptable.
8. For a discussion of metalinguistic negation see Horn (1985). For a relevance-theoretic reanalysis see Carston (1996b).
9. Just how coordinate structures are to be captured syntactically is a contentious issue. See Carston and Blakemore (2005) for some suggestions.
10. I'm working on the assumption that proper names, such as *Peter*, don't encode individual concepts, but rather procedurally guide the hearer to supply such a concept on particular occasions of utterance. For details see for instance Recanati (1993) and Powell (1998).
11. I've changed the order of the two sentences for the juxtaposed examples so as to rule out pragmatic unacceptability – *Peter didn't like the spinach. He ate it* doesn't make for a particularly acceptable piece of discourse.
12. In the Gricean spirit of avoiding unnecessary prolixity, I am grossly oversimplifying these and the following propositions.
13. Of course, the fact that a real-world causal relation doesn't hold on a particular occasion may be a very good reason for a speaker to indicate that the corresponding inference should be suspended. This will play a crucial role in my account of König's examples below.

Chapter 6 *Even* and *even if*

1. There doesn't seem to be a great deal of difference in meaning between conditionals of the form *Q, even if P* and those of the form *even if P, Q*, and I'm using the two interchangeably.
2. I am grateful to Robyn Carston for pointing out that there is a very natural interpretation of (1) and (2) that goes against König's claims: the speaker might easily be taken to communicate that Peter is the kind of person who always goes out in the rain. In other words, there is an interpretation on which the very opposite of König's conventional implication is taken to be communicated. While this is clearly problematic for König, I will not pursue it further, because it does not present any problems for the analysis I will propose.
3. Note that the notion of 'compositionality' used here, is to be understood as covering more than the conceptual compositionality tested for in previous

chapters. That is, it includes cases where one or more procedures operate on the conceptual content of an utterance.

4. Just how hearers determine where the focus lies is a complex question that requires an explanation involving phonetics/phonology, syntax and pragmatics. In what follows I will simply assume that it is clear which constituent is focused and I will indicate focus with bold type wherever necessary.
5. The compositionality assumption is supported by the fact that *even* and *if* don't always have to occupy adjacent positions for the utterance to receive a 'concessive conditional' interpretation. For instance, *I wouldn't marry you if you were the last man on earth, even* is likely to receive the same interpretation as (6). In this, *even if* clearly differs from *even though*, which is far more likely to be an 'idiomatic lump' – an utterance of *I won't marry you, though you're the last man on earth, even* is barely acceptable and certainly wouldn't be interpreted in the same way as *I won't marry you even though you're the last man on earth*.
6. For obvious reasons, Fauconnier (1975) is an exception to this.
7. As hinted at in note 6, there are, of course, earlier accounts of *even* than Bennett's, such as Horn (1969), Fauconnier (1975) and Anscombre and Ducrot (1976).
8. Somewhat confusingly, Bennett refers to this as the 'scope' of *even*.
9. These notational conventions will be adhered to throughout the rest of this chapter. Note, however, that in my own account I will take *S** and any S_js to stand for propositions rather than sentences.
10. The second type of counter-example Lycan considers can be given a similar treatment to (19), which is why I am not discussing it here.
11. Lycan (1991, 138–40) considers a whole range of ways in which this counter-example could be disposed of. One of these is that the domain of relevant events is adjusted from the first clause to the second. That is, that one might well assume in the first clause that the relevant events include those in which the hearer insults the speaker's wife but the second clause makes it clear that it doesn't. Because the solution to the problems posed by the next counter-example also solves those created by the present one, I'm not discussing this possibility in any more detail.
12. In claiming that S_j must be asserted, Barker's account appears to echo Anscombre and Ducrot (1983), who only seem to consider examples of the form *P, and even Q* and analyse *even* as indicating that *Q* is the stronger argument than *P* for the same conclusion *R* (see Iten, 2000a).
13. Barker (1994) gives a more detailed account of the 'consequent-entailment problem' for *even-if* conditionals. However, since it's not clear to me that the account proposed in Barker (1994) has any advantages over the one presented here, I will not discuss this further.
14. In my discussion so far I've been ignoring my very serious worries about this notion of 'a single more general truth', first introduced by Bennett (1982) and adopted by Francescotti (1995). I will address these worries in my evaluation of Francescotti's analysis below.
15. König (1991, pp. 69–87) largely adopts Kay's analysis, adding to it only his own construals of presupposition and conventional implicature, which seem immaterial to the present discussion.
16. Of course, *the trousers* are held constant.

17. Kay himself does not actually consider *even-if* utterances and, thus, the following discussion is largely speculative. However, it does seem important to engage in this kind of speculation because any account of *even* is only as good as its capacity to deal with *even* as it interacts with *if*.
18. Delgado (1999) offers a relevance-theoretic (procedural) analysis of *even* in terms of contradiction and elimination. See Iten (2000c) for arguments against this approach.
19. Indeed, Fauconnier has no pragmatic account – relevance-theoretic or otherwise – of how his scales may be accessed.
20. I'm indebted to George Powell for drawing examples of this sort to my attention.
21. Interestingly enough, it's much harder to come up with an example of an imperative utterance containing *even*. Thanks to Robyn Carston for suggesting *Don't even think about it!, Don't even look at her!* and *Be kind even to Mary!* Unfortunately, I can offer no explanation at this point of why such examples are rarer.
22. See, for instance, Quirk et al. (1972), Hovy and Maier (1994), Oversteegen (1997), Rudolph (1996), Mann and Thompson (1986, 1988).
23. In light of the reservations about König's interpretation of *even-if* utterances mentioned in note 2, this seems to be just the conclusion one wants to reach.

Conclusion

1. For a more in-depth discussion of these issues, see Powell (2000, 2002).
2. Note that this is a slight departure from the standard relevance-theoretic picture given in Chapter 3, which only mentions the conceptual aspects of sentence meaning. I believe that the picture given here is entirely compatible with Sperber and Wilson's views.

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