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Assertion and Mood: A Cognitive Account

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ABSTRACT

This thesis seeks to provide a cognitive account of the speech act of assertion and its relationship to the indicative mood. It starts by critically reviewing the literature on assertion and the uses to which it has been put in linguistic and philosophical research. Through this review, key issues relating to assertion and mood are identified. These are then addressed in subsequent chapters.

The second chapter lays the ground for a cognitive account of assertion and the indicative. It outlines the theoretical framework employed (Sperber & Wilson's Relevance Theory) and considers to what extent this is challenged by claims discussed in the previous chapter regarding the primacy of assertion over a conception of belief. Then, two distinct types of mental representation are identified according to whether or not they aim at consistency.

This distinction is crucial to the third chapter, in which a new relevance-theoretic account of the indicative mood is developed and the conditions under which it can result in assertoric effects are identified. This follows a discussion of previous relevance-theoretic approaches to mood, in which it is argued that the approach adopted of matching moods to world-types cannot adequately explain the lack of assertoric potential of non-indicatives. The new approach rests on the claim that indicatives are unique in presenting the proposition expressed as potentially relevant in its own right in a context. Assertoric effects result when this potential is exploited so that the proposition expressed is presented as relevant in its own right to an individual.

The final chapter throws the analysis of the indicative into relief by proposing an account of the Spanish subjunctive predicated on the claim that this form is incapable of presenting the proposition expressed as relevant in its own right.

3

ACKNOWLEDGEMENTS

The task of the theory of meaning is to give an account of how language functions, in other words, to explain what, in general, is effected by the utterance of a sentence in the presence of hearers who know the language to which it belongs – an act which is, even in the simplest of cases, by far the most complicated of all the things we do.

Michael Dummett, *The Logical Basis of Metaphysics*, p.21

INTRODUCTION

While a link between assertoric force and the indicative mood is, to some degree, supposed by virtually all those who write on the subject, researchers have tended to concentrate on either the force side or the mood side of the relationship. The result is that those who examine the act of assertion in great detail generally have little to say about what it is exactly that makes the indicative mood the preferred form for performing this act, whereas those who do consider the latter question don't, on the whole, concern themselves with issues relating to the nature of assertion and its place in a theory of linguistic meaning.

This division of labour has probably been a wise research strategy, given that any attempt to consider the assertion/indicative relationship in detail will need to address philosophical, linguistic and psychological concerns simultaneously. And within these fields many more sub-fields will be touched upon: in philosophy, the study of assertion has to do with, among others, the philosophy of mind, of language, and with epistemology and ethics; while in linguistics it raises semantic, syntactic and phonological questions. Little wonder, then, that an overarching account has not often been attempted.

Indeed, to pitch the problem in this way is perhaps to raise expectations for this thesis too high, so it needs to be emphasised that the aim is not to address all the issues raised in all the fields and sub-fields listed in the previous paragraph. Rather, the aim is to map out a meeting-ground where the different concerns might come together and their impact on each other be seen. This task is less daunting than it might once have been, as there is now a psychologically plausible and philosophically defensible theory of linguistic communication through which it might be tackled: Sperber and Wilson's Relevance Theory.

Surprisingly, little has been said about assertion within this framework, and the little that has been said about the indicative mood has primarily been the result of

concerns with other forms, such as the subjunctive and the imperative. Indeed, one question which will need to be considered is whether the notion of assertion has a role in the theory, or whether it is best regarded as a composite term, reducible to other theoretical primitives.

The approach taken in this thesis is as follows: first the literature on assertion is reviewed so that what is meant by this term can be more clearly identified. Although fundamental to much discussion of linguistic communication, the term 'assertion' is often quite happily used without definition, the assumption presumably being that there is a general consensus on its meaning. However, a survey of the literature reveals differences in opinion about what assertion is and to what extent it is linked to the indicative mood. This discussion also brings to light the views of authors who think that assertion deserves a far more fundamental place in semantic theory than it is generally afforded.

Once the notion of assertion has been analysed, the way is open to develop a cognitive characterisation using the tools made available by Relevance Theory. This is done in chapter 2, though not before some of the ramifications of ideas discussed in chapter 1 have been worked through. Particular attention is given to the question of whether the primacy of assertion over belief argued for by some of the authors reviewed in chapter 1 is a challenge to intentional accounts of human communication.

Because Relevance Theory is a cognitive model of linguistic communication, once an adequate characterisation of assertion in relevance-theoretic terms has been achieved, it is possible to relate this to the processing of indicative clauses, so that the contribution made by mood to the interpretation of an utterance as assertoric can be distinguished. Of course, it is also necessary to understand what happens when this mood is not interpreted assertorically, and when it is embedded. This is done in chapter 3, after previous relevance-theoretic approaches to mood have been considered and their weaknesses highlighted.

9

Given a notion of assertion which is adequately connected to linguistic mood, the way is then open to apply this to problems in linguistics, where the notion of 'assertivity' has been employed. One such case is the indicative/subjunctive contrast in Spanish, which has often been discussed in terms of assertion and non-assertion. The shortcomings of this approach are identified in chapter 4, as are those of model-theoretic approaches to the same problem. It is then shown how the account of the indicative/non-indicative contrast developed in chapters 2 and 3 can be applied to this problem with the result that the insights from the previous two approaches are retained and their limitations overcome.

Before commencing, though, a terminological point. The terms 'indicative' and 'declarative' are often used interchangeably. However, there are, of course, important differences. 'Declarative' is a term that can be applied to sentences, word order and intonation patterns, whereas 'indicative' is perhaps only accurately applied to verbs. However, it is common to talk of indicative clauses, and that practice is followed here. Moreover, as this thesis aims to provide a unified account of both embedded and main-clause uses of indicative clauses, it is useful to be able to refer to both as one type. Consequently, the term 'declarative' is not often used here, except when discussing the work of authors who employ this term. But this is simply to ignore for the sake of convenience, rather than to deny, the important role played by prosody and word order in the identification of the force of an utterance.

CHAPTER 1: PERSPECTIVES ON ASSERTION AND MOOD

1 INTRODUCTION

As a central aim of this thesis is to examine the place of the notion of assertion in a theory of utterance interpretation, it is essential to begin with a sound understanding both of the nature of this phenomenon and of the use to which this notion is put in theorising about language and language use. Given such an understanding, it will be possible to consider whether it has a part to play in a cognitive theory of utterance interpretation, and, if so, what that part is.

For such an apparently fundamental notion, assertion is surprisingly hard to pin down. It is perhaps best characterised, at this stage at least, by contrast rather than by definition. Assertion contrasts, on the one hand, with other basic speech-acts such as requesting/commanding and questioning, and, on the other, with other stances towards propositions employed in communication, such as presupposition. This second contrast is particularly useful, for it reminds us that a key feature of assertion – that it commits the speaker to the truth of the proposition expressed – is not unique to assertion, for speakers are also committed to the truth of what they presuppose. The contrast with presupposition is useful in another way too: it highlights the fact that assertion involves manifestly presenting a proposition as worthy of adoption, whereas presupposition is generally thought of as treating a proposition as already accepted by one's audience. Another possible contrast is between the psychological attitudes related to assertion and directive speech-acts such as commands: assertion is related to belief, whereas directives are related to desire. Finally, assertion is typically associated with the indicative mood, while the other basic speech-acts are associated with the imperative and interrogative moods.

This chapter will review the discussion of both the act of assertion and its relationship to the indicative mood. First, the relationship between assertion and truth will be discussed. As will be seen, there is a strong case to be made that assertions, rather than propositions, should be viewed as the primary bearers of truth.

11

If this is the case, then the forms which enable or facilitate the making of assertions become of crucial importance. Thus, the indicative mood, the form most closely related to the act of assertion, will be discussed in section 3. Of particular interest will be claims that the indicative mood should not be granted any special status in relation to assertion. Section 4 will focus on the special place assertion has in theories of linguistic communication (as opposed to theories of linguistic meaning) that rely on a convention of truthfulness. Section 5 will consider claims that the putative relationship between assertion and truth is too coarse-grained, and that only truth as evidenced by knowledge warrants assertion. Much theorising about assertion results from Frege's insistence that assertions, in logic at least, must be marked as such in order that they be distinguished from the mere expression of a thought. This view and some of its consequences will be discussed in section 6.

While most of the literature discussed in this chapter looks at assertion from a philosophical point of view, section 7 takes a more linguistic perspective in that it looks at the role assertion plays in discussions of information structure, where it is often contrasted with presupposition.

2 ASSERTION, TRUTH AND MEANING

The need for a notion of assertion is rarely argued for. Rather, it is generally treated as a phenomenon that needs to be explained. Debates therefore tend to centre on issues such as whether assertoric force is encoded by indicative mood; whether assertions need to be explicitly marked in a system of logical symbolism; whether assertion is related most closely to knowledge or to belief; and whether the assertoric use of language should have special status in a theory of language use. Although he would undoubtedly have much to say on all these issues, Dummett stands out from other writers in the prominence he gives to assertion as the foundation of a theory of linguistic meaning. For Dummett, as will be seen below, assertion underpins any theory of linguistic meaning that relies on the notion of truth. More recently, Barker (2004) has expressed agreement with Dummett's claim that truth must be analysed

in terms of assertion, though for different reasons. Each of these authors' work will be examined in turn.

2.1 Being true, obtaining and being called 'TRUE'

At the risk of stating the obvious, truth is central to any notion of assertion: assertions are judged in terms of truth and falsity. Moreover, anyone wanting to justify the use of a notion of assertion in a theory of linguistic meaning will immediately point to the need to link utterances to the world in a systematic way through the notion of truth. However, there is an opaqueness in the way the term 'true' is employed in much linguistic theorising, and it is important to be clear about which of the possible senses of 'true' is being made use of at any time. This ambiguity has been pointed out recently by García-Carpintero (2004), and it is also discussed by Dummett (1981) and Barker (2003; 2004). It stems from the commonly made observation that a set of utterances such as (1) have a crucial element of meaning in common:

(1) a. Peter closes the door
     b. Close the door, Peter
     c. Did Peter close the door?

Assuming that the individual denoted by 'Peter' and the door referred to by the NP 'the door' are the same in each case, as well as the sense of 'close' and the implicit time reference, then what the sentences in (1) have in common is that they represent a state of affairs in which Peter closes the door at a certain time. They differ, of course, in how they represent that state of affairs. This common core of meaning has been given a number of names: a 'sentence radical' (Wittgenstein 1958: 11), a 'phrastic' (Hare 1970/1971, 1971, 1989), 'descriptive content', or 'the proposition expressed'. As Green (2000) points out, Wittgenstein's term employs an illuminative analogy from chemistry. Chemists distinguish between a 'radical' and a 'functional group', the former being a group of atoms normally incapable of independent existence, the latter being a grouping of these in a compound. Wittgenstein's term

highlights the feeling that the common core meaning of (1) cannot generally play a role in communication independently of its realisation in a sentence of one of the types exemplified. Though this claim could perhaps be challenged by pointing to infinitival utterances, which might be argued to express a forceless proposition, the analogy is nevertheless a useful way of fleshing out the intuition that what the utterances in (1) share is something which, although crucial to their meaning, cannot easily be extracted and analysed in the way that, say, a constituent NP can. Whatever the merits of Wittgenstein's analogy, though, the term most commonly employed today to refer to this core meaning is probably the last of those listed above: 'the proposition expressed'.

One way of viewing a proposition is as a function from a possible world to a truth value. On this view, a proposition, given a possible world as an argument, returns either 'TRUE' or 'FALSE' as its value, depending on whether the state of affairs described by the proposition obtains in that world. It is not hard to see how this might usefully play a role in the evaluation of any of the three utterances in (1). If the proposition returned 'TRUE' given the world at the time referred to by the utterance, the statement in (1)a would be judged true, the command in (1)b would be judged to have been obeyed,[1] and 'yes' would be an appropriate response to the question in (1)c.[2] Note, though, that while returning the value 'TRUE' is common to all three evaluations, only in the first is the word 'true' employed. As will be seen below, this is a very important point, as it suggests that the value that is returned by a proposition on the proposition-as-a-function view is not the natural-language 'true' that we apply to assertions.

Noting this apparent ambiguity, García-Carpintero (2004: 152-153) distinguishes between a proposition obtaining and a statement being true. If (1)b is obeyed or (1)c

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[1] As long as Peter had closed the door as a result of the speaker's utterance of (1)b.

[2] Indeed, an analysis of mood along these lines is given by Segal (1990).

elicits the response 'yes', that is because the proposition it expresses obtains. When the proposition expressed by an utterance such as (1)a obtains, however, the utterance is said to be true. The same distinction is drawn by Barker (2003), for whom a proposition is a set of worlds and a proposition can be said to obtain in a particular world if that world is included in that set. The question then becomes whether there is any substance to this distinction, or whether a proposition's obtaining and an utterance's being true are essentially the same thing.

In one respect they are certainly different: 'obtains' is neutral about direction of fit, whereas 'true', as applied to assertions, clearly entails a word-to-world direction of fit.[3] That is to say that an utterance can be said to be true only if the proposition it expresses obtains independently of the utterance. If, though, the proposition expressed obtains as a result of the utterance, such as when a directive utterance such as (1)b is obeyed, giving a world-to-word fit, then the term 'true' cannot be applied.[4]

There is another way that the two terms differ, though this is perhaps harder to grasp. It relates to a point made by Dummett (1993) concerning the need for disquotational theories of meaning to be embedded within a theory of assertion. A common strategy in attempting to provide a semantics for a natural language is to attempt to detail the truth conditions of that language in a series of Tarskian T-sentences such as (2):

(2)   'Snow is white' is true iff snow is white

In (2), a sentence of the object language is given in quotation on the left-hand side of the equation, and its truth-conditions given on the right-hand side in the meta-

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[3] See Humberstone (1992) for discussion of the notion of direction of fit.

[4] As such, 'obtains' and 'true' correspond, to a large degree, to Recanati's distinction (which he eventually rejects) between broad and narrow senses of 'true' (1987: 143-154).

language (which is the same as the object language in this case, but needn't be). Rather than attempt the impossible task of listing the T-sentences for all sentences of the object language, however, an attempt is made to specify the truth conditions for the language compositionally, such that T-sentences for all the sentences in a language can be derived. This approach, one exposition of it being Larson & Segal (1997), is termed 'disquotational' because it seeks to link language to the world by expressing the meaning of a quoted expression through the use of a language for which one has knowledge of meaning (Larson & Segal 1997: 50-51). The claim made by a T-sentence is not a correspondence in meaning between two quoted sentences, as in (3), but between a quoted sentence and facts about the world expressed in a language the theorist has knowledge of, hence the term 'disquotational'.

(3)   'Snow is white' is true iff 'La nieve es blanca' is true

Following Davidson (1967/2001), it has often been suggested that sentences such as (2) can be employed as a characterisation of the semantic competence of a speaker of a language such as English. The idea is that a person understands a language only if she can match sentences and their truth conditions. However, it is not clear that all a speaker knows of a language can be expressed in these terms. Aside from the need to deal with context sensitivity, there also appear to be some elements of linguistically encoded meaning which do not affect truth-conditions, such as the much-discussed connective 'but', which appears to make no greater contribution to truth-conditions than 'and', but cannot be substituted by 'and' without loss of meaning (see Carston 2002b: 50-56 for discussion of this point and other problems associated with attempting to account for semantic competence in this way).

The issue Dummett raises is different, however. He notes that attempting to characterise knowledge of the semantics of a language in terms of truth-conditions entails ascribing a grasp of the notion of truth to the individual to whom this knowledge is being attributed. The question then becomes one of establishing the

grounds on which this ascription would be justified. In other words, what licenses the attribution of the concept of truth to an individual? Dummett's answer to this question is that the only way an individual can demonstrate a grasp of truth is by demonstrating competence in the practice of assertion. To the view that assertion should be analysed as the expression of belief (from which its connection with truth would be derived), Dummett responds that it is a mistake to attempt to explicate assertion (and therefore truth) in these terms, because a central element of what it means to have a concept of belief (i.e. a conception of truth) is only explainable in terms of assertion.

He argues for this position in the following way. Suppose, he says, we want to ascribe to an individual a conception of belief. That is, we want to be able to attribute to an individual an understanding that other people have beliefs and that they express these when they make assertions. To make such an ascription, he argues, one must also attribute to that individual knowledge of what truth is, for to understand the nature of belief entails grasping that beliefs can be true or false. On what grounds, then, would we be justified in attributing an understanding of truth and falsity to an individual? The only behaviour that justifies the attribution of truth to another individual, he argues, is competent assertion. But if this is the case, then truth and assertion are inextricably linked and one cannot therefore analyse assertion in terms of belief, for the correct analysis of belief makes use of a notion (i.e. truth) which must itself be explained by reference to assertion. Therefore, Dummett argues, assertion must come before belief in the order of explanation (1993: 219-221).[5]

For Dummett, this is a purely philosophical issue, and he does not consider the question of whether his arguments have any consequences for the development of a

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[5] Note that, by claiming assertion is prior to belief, Dummett is making a point about conceptual or analytical priority, or the correct order of explanation (1993: 217). He is not claiming that having a language is a prerequisite for having beliefs.

concept of belief in the human child, or, moreover, in the human species. It is worth considering, however, whether this might be the case. Many theories of linguistic communication, such as Sperber & Wilson's Relevance Theory, follow Grice in viewing linguistic meaning in terms of intention attribution. According to such theories, the intentions that need to be attributed to a speaker when interpreting her utterance are quite complex, and are often characterised as involving belief attribution. Such theories would appear to predict, therefore, that a conception of belief is a prerequisite for competent assertion. As Breheny (forthcoming) points out, this view is challenged by the empirical data, which shows that children are competent asserters before they can demonstrate possession of a full conception of belief. Dummett's argument suggests that children might need to develop competence in assertion as a stepping-stone to competence in belief attribution. This issue will be discussed in some detail in section 3 of chapter 2.

Returning to current concerns, if assertion and truth are inextricably linked, so that one concept cannot be explained without reference to the other, then any account of meaning which makes use of the notion of truth must be embedded in a theory of assertion, Dummett argues. Failure to realise this amounts to the predicate in a T-sentence not being fully disquotational, rendering (2) as (4) (though Dummett himself doesn't put it this way):

(4)   'Snow is white' is 'TRUE' iff snow is white

In other words, unless one has a disquotational knowledge of the meaning of the word 'true', all a T-sentence such as (4) explicates is the knowledge necessary to assign an arbitrary value to a sentence given certain conditions. As Dummett puts it: "no one can sensibly be said to know the theory of truth [...] if that is *all* he knows about truth. Unless he knows, in some implicit manner, what truth is, he cannot be said to know a sentence to be true, or to know that it is true under such-and-such conditions; all that he can be said to know is that it is to be *called* 'true', absolutely or under such-and-such conditions" (1993: 220). To have a disquotational

understanding of truth is thus to be a competent asserter, according to Dummett, and, a characterisation of semantic competence in terms of truth-conditions accounts only for the Fregean sense of the sentences of a language. For a complete account of the meaning of a language, a theory of force is also needed. Without this, there is a failure to distinguish between a sentence's being true and its merely being called 'TRUE'.

The distinction between being called 'TRUE' and being true is essentially the same as that between obtaining and being true. In judging an assertion as merely 'TRUE', an individual would be saying, in effect, that the proposition expressed by the utterance obtains. This is why Dummett argues that Davidson's theory of meaning is in fact a theory of Fregean sense (1993: 222). For Dummett, (1)a to c share the same sense, but differ in force. Barker and García-Carpintero would say that they express the same proposition and that this can be judged as obtaining or not: "'Obtains' applies indifferently to what is linguistically encoded by utterances in different moods [...] A disquotational theory of truth is adequate as an account of what we here mean by 'obtains', but it does not suffice to account for the invidious 'true'" (García-Carpintero 2004: 152). What the notation 'TRUE' employed here does that the term 'obtain' does not is highlight the fact that, in some semantic theorising, knowledge of truth is smuggled in for free, as it were.

Dummett's most forthright presentation of this view is in *Mood, force and convention* (1993), which he wrote as a response to Davidson's (1979/2001) claim that the indicative mood is a forceless form.[6] Dummett's aim is to show that this cannot be the case by convincing us that the notion of assertion cannot be made sense of without positing a form conventionally associated with it. His arguments for this echo his arguments for the priority of assertion over belief, outlined above. In

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[6] Davidson (1979/2001) was itself a response to Dummett (1981). See also Davidson (1984/2001) and Dummett (1995: 113-122).

order to be justified in ascribing a notion of truth to an individual, he argues, we must identify a behaviour which demonstrates that the individual grasps that notion. This behaviour, Dummett claims, is just the appropriate use of linguistic forms conventionally specified for uttering truths, i.e. the making of assertions using sentences in the indicative mood. Without positing such a convention, we have no behavioural characteristic that justifies attributing a conception of truth to an individual.[7]

This claim might appear to lead Dummett to the untenable position that the indicative is a failsafe indicator of force. This is certainly how Davidson appears to have read him, but, as will be seen in section 3, Dummett's position is actually weaker than this. As regards his claims about the primacy of assertion in the analysis of belief (i.e. that assertion is conceptually/analytically prior to belief), one might want to challenge this by pointing to a non-linguistic animal which demonstrates a grasp of the notion of belief. The clearest way to demonstrate that an animal has the notion of belief would be to show it has an understanding of false-belief. This could be done, for example, by showing that one animal could correctly predict the behaviour of another by attributing a false belief. Call and Tomasello (1999) attempted to do just this in a non-verbal, false-belief attribution experiment with chimpanzees and orangutans. Their results suggest that non-human primates do not have this ability. Moreover, in a review of the literature they note that few studies have shown any evidence that non-humans have this ability. Thus, it seems that, should he wish to apply his analysis empirically, Dummett has nothing to fear from this line of attack.[8]

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[7] Stainton (1993; 1997) would object that assertions can be made by uttering non-sentential forms, but Dummett's point, at least as expressed in *Mood, force and convention*, is that the notion of assertion could not exist without this conventional link with indicative sentences, not that assertions can only be performed using complete sentences in the indicative mood.

[8] Cf. Dummett (1981: 354): "A dog can be trained to bark when a stranger approaches the house; but one reason why we should be disinclined to describe the dog's barking as asserting that a stranger is

Alternatively, one might want to suggest that an understanding of belief, and thus of truth, is genetically hard-wired in humans and thus not reliant on the notion of assertion. But Dummett's point relates to the understanding of truth by theorists. His point is that such an analysis requires a prior analysis of the act of assertion. To be sure, one can say that a mental representation is true if it corresponds systematically to a state of affairs in the world, but when challenged to explain: 'What does 'true' mean?', one would have to do so without relying on the act of assertion. Dummett's claim is that one cannot. That said, as was noted above, Dummett's conceptual analysis could be employed to raise some probing questions about the development of human verbal communication, a point that will be returned to in the next chapter.

On the other hand, one might grant that assertions are the primary bearers of truth, but disagree with Dummett's Fregean view of language. This, as will be seen below, is what Barker does.

2.2 Assertion as the meaning of indicative clauses

As was noted in the previous section, one author who stresses the importance of distinguishing between a proposition obtaining and an assertion being true is Barker (2003; 2004). Barker, however, has a very original view of just what it means to judge an assertion as true. For him, truth is not primarily a matter of correspondence between a propositional form and a state of affairs. Rather, he sees judging an assertion to be true as expressing agreement with the speaker that a certain cognitive state indicated by the assertion is the appropriate one to be in, given how the world is.

To see how this works, it is necessary to consider the two types of assertion that Barker postulates: reportive and expressive. The first of these appears, on the

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approaching is that he couldn't bark in order to deceive us into thinking that a stranger was approaching."

surface, to be similar to what might be called the 'standard view' of assertion as the employment of a propositional form to faithfully represent the world. The second, however, is quite distinct in that judging an assertion of this type to be true does not rely on correspondence between a proposition and a state of affairs, but on sharing internal states. And, as will be seen, it is this sharing of internal states which, Barker argues, actually underlies all uses of the predicate 'true' as applied to assertions, be they reportive or expressive.

The reportive/expressive distinction is itself derived from the ontology that Barker postulates. On his view, the world consists of objects, properties and situations, the last of which he terms 'complexes' (in order to avoid confusion with other semantic theories that use the term 'situation' to denote possible states of affairs). Complexes are made up of objects, properties and relations and are parts of the actual world, not mere possibilities. Crucially, for Barker, there are no logically complex complexes: "there are no complexes that are negative, universal, conditional or disjunctive" (2004: 4), because there are no such entities as these in the world.

One immediate consequence of this ontology is that only assertions of logically simple propositions can be analysed in terms of correspondence between the proposition expressed and the way the world is. If there are no negative complexes, for example, then negative statements cannot be judged true or false on the basis of their correspondence to how the world is. This is why Barker needs a conception of truth that does not rely on correspondence.

In order to see how Barker's notions of assertion and truth operate, consider first a logically simple assertion, one which could, on his view, employ correspondence to represent a state of affairs in the world (i.e. a complex).

(5)   It's raining.

This would express the proposition in (6):

22

(6)   \<raining in place p at time t\>

While the proposition expressed by the assertion is clearly a representation of the world, this in itself, argues Barker, is not what makes it truth-apt: as was shown above, other sentence types, such as imperatives and interrogatives, can be argued to express propositions, but they are not truth apt.[9] Rather, what makes an assertion truth-apt for Barker is the presence of a special kind of intention advertised, he argues, by the employment of the indicative mood.

Moods indicate intentions for Barker because he characterises the meanings of sentences as speech-act types (proto-acts), and the meaning of the indicative mood, in these terms, is a proto-assertion, so that when someone utters a sentence in the indicative mood, she presents herself as having the intention to assert. This is not to say, though, that she necessarily has this intention, nor that she is necessarily understood to have this intention by her audience. However, if she does have the intention that she presents herself as having, and this is recognised by the audience, then she is thereby asserting (2004: 7).

If the indicative is a proto-assertion, then the question arises of just what being an actual assertion consists in. Barker argues that an assertion has two basic components: a representational element and an intentional element. On the one hand, the speaker intends to represent a certain complex, while, on the other, she intends her behaviour to have a certain effect on her audience. The effect she intends, he argues, is that her audience both attribute to her a certain cognitive state (e.g. the belief that it is raining, in the case of (5)) and either adopt, confirm or reject that

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[9] Barker also points out that an NP such as 'Fred's being pink' expresses the same proposition (i.e. represents the same complex) as the corresponding sentence 'Fred is pink' but only the latter is truth-apt (2004: 73).

23

cognitive state in their own case.[10] Judging a reportive assertion such as (5) to be true is thus to judge the cognitive state attributed to the speaker to be an appropriate one to be in. While this judgment clearly depends to some degree on correspondence between a state of affairs and the representation employed, Barker agues that it would be a mistake to see this correspondence alone as justification for the application of the predicate 'true'. Rather, he claims that it is the fact that the speaker has presented her own mental state for adoption, confirmation, or rejection that permits the felicitous application of 'true' (2004: 8-9). To see why he rejects correspondence as the basis for truth, it is necessary to look closely at his distinction between reportive and expressive assertions.

The difference between a reportive assertion and an expressive assertion can be illustrated by considering two utterances which, according to Barker, represent the same complex (i.e. express the same proposition) but have different truth conditions:

(7)   There is probably life on Mars

(8)   I strongly believe that there is life on Mars

(9)   <strongly believes, speaker, <there is life on Mars>>

Barker argues that both (7) and (8), spoken by the same speaker under the same circumstances, would represent the complex/express the proposition in (9). Clearly this complex is an internal state of the speaker, but it is still part of the world. However, the assertions in (7) and (8) are truth-conditionally distinct because one would judge (7) to be true only if one also believed that there was life on Mars, but could judge (8) as true even if one did not believe in life on Mars, provided one believed that this speaker has this belief (2004: 30).

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[10] Barker speaks of this intention in terms of "defending a commitment to a cognitive property" (2004: 8). As far as possible, Barker's technical vocabulary is avoided here.

Rather than argue that (7) and (8) express distinct propositions (perhaps, for example, by attempting a modal analysis of (7)), Barker seeks to explain the difference in truth conditions in terms of the intentions associated with each one. (8) is a reportive assertion in his terms, and is analysed in the same way as (5) above: the hearer judges it to be true only if the epistemic state indicated by the representational content of the utterance is accepted as an appropriate one to be in, given the way the world is. An expressive assertion such as (7) is distinct in that the speaker represents herself as having a certain internal state, but rather than put forward the fact that she has this state for adoption, confirmation, or rejection by her audience (as is the case in a reportive assertion such as (8)), she puts forward the mental state itself. Another way of putting this is to say that statements about internal states and expressions of internal states both employ, on Barker's story, a representation of the following format:

(10) Speaker has internal state X

His distinction between reportive and expressive assertions can then be understood in terms of what the speaker intends her audience to adopt, confirm or reject. In the case of a reportive assertion about an internal state, it is a belief of the form 'Speaker has internal state X'; in the case of an expressive assertion, it is the internal state X itself. Judging an expressive assertion to be true is thus to agree with the speaker that the internal state represented by the assertion is an appropriate one to be in (2004: 9-11). It differs from a reportive assertion in that the state the audience is invited to agree with is not representational. In other words, when a reportive assertion is judged true, there is a correspondence between a representation and a complex but this correspondence is absent in the case of expressive assertions. For Barker, though, this does not mean that the term 'true' is being applied differently in each case. In both cases, he argues, what the application of the predicate 'true' indicates is acceptance of the epistemic state the speaker presents herself as being in (2004: 9), regardless of whether or not this state is to be judged appropriate on grounds of correspondence.

Barker argues that this conception of truth is not subjective: it is not the case, he argues, that characterising the use of 'true' as an expression of agreement on the appropriate cognitive state to be in reduces truth to mere agreement. Whether a given internal state is indeed the appropriate one to be in depends on how the world is, i.e. an objective fact. It is a mistake, though, to see logically complex truths as being derived from a direct correspondence between a representation and how the world is, he says. Rather, the relationship is an indirect one: "In short, the truth of logically complex sentences is constrained by the extralinguistic world but not directly – by actually representing logically complex world-parts – but indirectly, by expressing those cognitive states that are integral parts of systems directed towards objective representation." (2004: 16-17). Thus, a negative statement such as (11) is correctly judged true if the state it expresses is the correct one for a human to be in when referring to a state of affairs in which there is no rain. Barker's claim though, is that this state is not a representational one: there is no correspondence between the internal state and the state of affairs in the world which justifies that internal state.

(11) It's not raining

While Barker's view of assertion is original and stimulating, adopting it would represent a major break with traditional semantic theory. As he is keen to point out, his 'pragmatic conception of truth' is a major departure from what he terms 'the semantic conception of truth', based on correspondence, which dates back at least to Frege (Barker 2004: 12). However, there are points that can be drawn from Barker that will be of use in this thesis but that will not entail adopting wholesale his speech-act theoretic approach.

First, Barker's division of assertion into a representational and a communicative component (see, in particular, 2004: 44-45 for a clear statement to this effect) is important as it highlights the fact that assertions – the bearers of truth – are representations. Despite his insistence that correspondence between the

26

representational content of an assertion and the world is not what is central to truth-aptness, his view does have it that representationhood is a necessary condition of truth-aptness, albeit not a sufficient one. (As will be seen later, this view is shared by the account of assertion developed in this thesis.) Viewing representations, rather than propositions, as the primary bearers of truth is important because it places truth-bearers in the physical, rather than an abstract, realm. Propositions, whether conceived of as functions from possible worlds to truth values, or as sets of possible worlds, are abstract entities. Representations, by contrast, are necessarily physical things.

Second, along with other accounts of assertion, such as Stalnaker's (to be discussed often in the coming pages), Dummett's and Garcia-Carpintero's, Barker emphasises that assertion has, as an essential element, the intention to influence the thoughts of others. Where Barker differs is that he does not see this effect as necessarily resulting from the acceptance, by the hearer, of the proposition expressed as a true *description* of how the world is. It is not clear, though, that this element of assertion is central to their truth-aptness (though it may be central to an adequate conception of assertion), as one can also call a belief true, even though beliefs *per se* have no communicative function.[11]

Before concluding this section, it is important to point out that the picture painted here of Barker's account is but a sketch. As well as views on assertion, he also has interesting views on mental representation that will not be touched on here (2004: chs. 7 & 8). Moreover, he argues that his speech-act theoretic approach to semantics can deal with a number of problems central to linguistic semantics, such as those presented by definite descriptions, without positing a logical form radically distinct from surface structure. In the end, then, its merits will largely boil down to how

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[11] Barker would object to this, of course, because for him it is this communicative function which is essential to an assertion's being judged true or false

successful these claims are, but it is beyond the scope of this thesis to evaluate them.[12]

3 ASSERTION AND INDICATIVE MOOD

It was noted above that the sentences in (1) are often said to express the same proposition but differ in an important respect. One use a theorist might want to make of the notion of assertion is to differentiate the indicative from the other two sentence types. (Indeed, Barker does this by viewing declarative sentences as proto-assertions.) It was shown in section 2.1 that Dummett considers it crucial that the indicative be seen as a conventional marker of assertoric force, and would distinguish (1)a from (1)b and c by virtue of this. This section looks at objections to this move and considers whether the indicative might be better described as a form which conveys no information about force.

While no author appears to want to deny any link whatsoever between linguistic mood and force, there are those, such as Davidson (1979/2001), who deny that the indicative is specified for a particular illocutionary function. Davidson's reasons for thinking this are twofold. First, he argues that there are many cases where assertions are made without the main clause of the sentence being indicative ((12) and (13) below), while at the same time many indicative sentences are used to perform non-assertoric acts, as in (14), where an indicative is used to give a command, and in cases where there is no commitment to truth, such as fiction and jokes.

(12) Did you notice that Joan is wearing her purple hat again?

(13) Notice that Joan is wearing her purple hat again

(14) In this house we remove our shoes before entering

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[12] An attempt to explicate linguistic meaning in terms of illocutionary act potential in more traditional speech-act terms than Barker's can be found in Alston (2000).

Secondly, according to Davidson, any link between mood and force in language could always be undermined by what he terms 'the autonomy of linguistic meaning':

> Once a feature of language has been given conventional expression, it can be used to serve many extra-linguistic ends; symbolic representation necessarily breaks any close tie with extra-linguistic purpose. Applied to the present case, this means that there cannot be a form of speech which, solely by dint of its conventional meaning, can be used only for a given purpose, such as making an assertion or asking a question (1979/2001: 113)

In other words, even if there were such a thing as a marker of assertoric force in natural language, then its use would not guarantee that an assertion had been made, in much the same way that the fact that there is a conventional sign 'chair' used to denote a chair does not guarantee that, on each occurrence of its use, it will be used to make this denotation (due, of course, to features of language use such as metaphor and metonymy). These two observations lead Davidson to conclude that, as far as the indicative mood and assertion are concerned, there is no need to posit any linkage. Rather, the indicative can be used to make assertions or not, "as is our wont" (1979/2001: 119), and also as a building block for the other moods.

There are a number of issues raised by these claims. Firstly, it is necessary to look closely at the details of Davidson's positive claims for the analysis of mood and Dummett's response to these. This will lead to a discussion of Recanati's reasons for also claiming that indicative is a forceless mood. Then, the claim Davidson makes under the heading of 'the autonomy of linguistic meaning' will be examined more closely. This has been subjected to close scrutiny by Green (1997), who argues that, on one reading of it, there is a class of counter-examples. Next, just what relationship one should expect to find between mood and force will be considered. Jokes, fictions and the like are often held up as counter-examples to the claim that the indicative is a marker of assertion. This supposes that anyone claiming that mood encodes force must thereby claim that it encodes seriousness. It needs to be asked how realistic this is. Finally, how main-clause and embedded mood markers are

related must be considered. Until then, however, all mention of indicative/imperative/interrogative clauses will refer only to main-clause use.

3.1 Davidson's paratactic analysis

Davidson posits a paratactic analysis of non-indicative mood, whereby the utterance of an imperative such as (15)a, for example, is to be analysed as a double utterance, as in (15)b:

(15) a.   Put on your hat

      b.   My next utterance is imperative. You will put on your hat

Davidson does not want to say that imperative sentences are in fact two indicative sentences. Rather, what (15)b shows, he says, is the semantics of an imperative sentence in terms of two sets of truth conditions: those of the mood-setter and those of the 'indicative core'. When an imperative is used without imperatival force, as in (13), the mood setter will be false. Nor does Davidson want to claim that mood-setters assert that the next utterance has the force described: they characterise it as having this force but do not assert that they have it, he says, for only speakers can assert. Davidson also argues that his account explains why non-indicatives do not have a truth-value: each utterance of a non-indicative consists semantically in two utterances with distinct truth-conditions, but, as these are not conjoined, the utterance itself has no truth value. He deals with non-assertoric moods in a parallel manner.

Dummett's strategy against Davidson's paratactic account of mood is to argue that it relies on indicative sentences being neutral in terms of their potential illocutionary force. This is, of course, what Davidson himself is claiming, but Dummett is keen to show just why Davidson *must* say this. Dummett then goes on to show how such a view is untenable.

To show that indicatives must be force-neutral on Davidson's account, Dummett first considers the implications of analysing the indicative in the same way that Davidson proposes to analyse the other moods. On this view, an assertion such as (16)a would be analysed as in (16)b:

(16) a.   You are eating your lunch now

       b.   My next utterance is assertive. You are eating your lunch now

The next step in Dummett's argument is to insist that, despite Davidson's protestations to the contrary, the mood-setter in cases such as (15)a must be analysed as assertoric, for, if not, then the speaker won't have asserted anything at all but simply have expressed two propositions.[13] This means that the mood-setter must be analysed as being marked for assertoric use, i.e. indicative. But if this is the case, then a problem of infinite regress arises, for the truth conditions of (15)b must be represented as (17):

(17) .....My next utterance is assertive. My next utterance is assertive. My next utterance is imperative. You will put on your hat

In other words, every assertion will require an assertion to the effect that an assertion has been made, *ad infinitum*.

This observation hangs on Dummett's claim that the mood setter must itself have a mood because it must have force. But Davidson's claim, as Dummett himself recognises, is that indicatives do not have a mood-setter but are recognised as having assertoric force on some occasions and lacking it on others, depending on the speaker's intentions. Therefore, Davidson could argue that, even if his account does

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[13] This may not be a wholly accurate representation of Davidson's views: he says that mood-setters don't assert, but he doesn't say that speaker's don't assert when they utter them.

require that mood-setters have assertoric force, this in no way commits him to the view that these are indicatives in the mood-indicating sense, for the indicative mood, on his story, is not a prerequisite of assertoric force. This resolves the problems of infinite regress, but, crucially, it commits Davidson to the view that indicatives are mood-less, a position that Dummett sees as untenable. In addition to the reasons outlined in section 2, he makes the following claim:

> To make out that the indicative mood was really a non-mood, one would have to show that its use gave no indication whatever of the force attached to the utterance. This is impossible to do: at the very least, the use of the indicative mood is a prima-facie indication that the speaker is attaching to what he says a force distinct from any of those which the interrogative, imperative, and optative moods are typically used to convey (1993: 207)

In other words, at the very least the indicative conveys what mood it is not, and that in itself is a type of mood in that it indicates what information is about force is not being communicated.

Further problems arise from the close application of Davidson's own analysis to the examples that he puts forward to undermine the view that the indicative mood and assertoric force are linked, such as (12) and (13):

(12) Did you notice that Joan is wearing her purple hat again?

(13) Notice that Joan is wearing her purple hat again

(18) a. My next utterance is interrogative. You noticed that Joan is wearing her purple hat again

       b. My next utterance is assertive. You noticed that Joan is wearing her purple hat again

(19) a. My next utterance is imperative. You notice that Joan is wearing her purple hat again

       b. My next utterance is assertive. You notice that Joan is wearing her purple hat again

In these cases, Davidson would have it that the mood indicates a double utterance so that they would be interpreted, initially at least, as having the truth conditions in (18)a and (19)a respectively. However, as these are examples of an interrogative and an imperative being used to make assertions, the mood-setter would be judged as false and the utterances reinterpreted as in (18)b and (19)b respectively. But this is intuitively wrong: if these are indeed assertions, then surely what the speaker is asserting is the content of the embedded indicative clause (that Joan is wearing her purple hat again), not the content of the whole sentence (that the hearer noticed that Joan is wearing her purple hat again). But this means that Davidson must provide an explanation of how the content of the indicative subordinate clause is picked out as the content of the assertion, and he must do this without any appeal to the fact that the mood of these clauses is indicative (Dummett 1993: 208-209).

So Davidson's paratactic story fails on two counts: it cannot deal with his own examples of sentences uttered without the force their mood would normally be taken to have indicated, and it relies on an untenable view of indicatives as mood-less sentence radicals.[14]

3.2 Recanati's performative concerns

The claim made by Dummett in the quotation above is open to challenge in the following manner: one could argue that the indicative mood can be used with any of the forces normally associated with the other moods. If this were the case, then employing the indicative would not signal that one was not performing an act for which one of the other moods was specified. Indeed, there is some evidence that might be taken to suggest that the indicative mood does have this range of uses:

(20)   You will take off your shoes before entering

(21)   I wonder what your name is

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[14] Davidson's account is also criticised by (Harnish 1994: 420-421) and Hornsby (1986).

It could be claimed that the speaker of (20) is employing an indicative to give a command, while (21) is being used to ask a question. Of course, it might be objected that (20) is not a true indicative because of the modal 'will', and that (21) contains an embedded question, yet these examples will do to give the flavour of the sort of evidence that might be put forward against Dummett's claim that the indicative must give some indication of force if only by virtue of not being one of the other moods: if it can potentially be used with any force conventionally associated with the other moods, then the hearer is given no linguistic indication of the force intended.

One author who does claim that the indicative is force-neutral is Recanati (1987), and he does so precisely because of its apparent non-assertoric use.[15] Recanati adopts this view of indicatives (or, to use his terminology, declarative sentences) in order to preserve his claim that explicit performatives such as (22) do not communicate their directive force through an indirect speech act:

(22) I order you to leave the room

He feels he would be committed to this view by accepting that indicatives were specified for assertoric force because this would lead to what he terms a "Gricean" analysis of performatives such as (23), (24) and (25) (taken from Recanati 1987: 140):

(23) It's yours. [Said in response to "Your car is great; I wish I had one like it."]
(24) The floor is now open to debate
(25) Prisoners condemned to death will be beheaded

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[15] Note that being force-neutral need not mean being mood-less. Force-neutrality might itself be the information encoded by the indicative mood.

Each of these examples is a case of an indicative sentence being used not to report a state of affairs but to bring one about. If it were accepted that if one necessarily performed an assertion by seriously uttering an indicative sentence, then the obvious way to analyse these would be as cases of Gricean implicature, the inference being as follows:

(26) The speaker has asserted that P

P is false

The speaker is aware that P is false

Therefore the speaker has flouted the Maxim of Quality by saying what he believes to be false

The speaker is adhering to the Co-operative Principle

Therefore the speaker must be performing an act other than assertion

Therefore the speaker is directing me to.../declaring that ...

No doubt (26) could be tightened up somewhat, but it conveys the spirit of the inference that the hearer would be expected to draw. Recanati's problem is that this approach leads naturally to a parallel analysis of explicit performatives such as (22), thus making all such utterances instances of indirect speech. On such an analysis, the speaker of (22) indicates, through his use of the indicative mood, that he is asserting that he is ordering the hearer to leave the room. On the crucial assumption that an assertion can only be judged true when the correspondence between the proposition expressed and the state of affairs it describes holds independently of that assertion, the speaker would therefore be overtly asserting something that was false and thereby warrant an interpretation of an indirect, directive speech-act.

One can see why this might not be attractive to a speech-act theorist: (22) sounds about as direct a way of giving an order as you can get. Moreover, as Recanati is keen to stress, such an analysis is at odds with Austin's (1976) claim that the assertoric use of declaratives is not privileged with respect to their other uses, as exemplified by (23), (24) and (25). To see it as privileged was, according to Austin,

to succumb to the 'descriptive fallacy', whereby one sees the informative use of language as more fundamental than its other uses, such as naming, betting, promising and so on. By regarding indicatives as force-neutral, Recanati is able both to avoid the descriptive fallacy and have it that explicit performatives are direct speech acts.

It is not clear that Recanati needs to do this, though. The view Dummett puts forward in *Mood, force and convention* is that mood is merely an indicator of illocutionary force, not a determinant. It is a tactical tool available to allow speakers to achieve their communicative aims. On this view, the inference used to interpret (23), (24) and (25) is more like:

(27)   The speaker has expressed P using a form conventionally specified for the utterance of truths/making assertions.

P is false

The speaker is aware that P is false

Therefore the speaker cannot be using this form with its conventional force

Again, (27) could certainly be tightened up, and it leaves the remainder of the interpretation process unspecified, but the key point is clear: the inference does not rely on the premise that the speaker has made an assertion and therefore the resulting illocutionary force does not have to be classified as indirect. It therefore does not follow that one needs to postulate that the indicative is force-neutral in order to maintain the intuition, if one has it, that (22) is a direct order. All that is needed is the recognition that an entity conventionally specified in some manner for one use can nevertheless be put to other uses (cf. Harnish 1994: 430). Moreover, these further uses may also have a conventional element.

Of course, Dummett (1993) was not available to Recanati, whose *Meaning and force* (1987) predates it. Dummett's earlier writing on assertion in his book on Frege's philosophy of language (1981) does not distinguish the tactical role of mood

markers. Indeed, in the earlier publication he appears to equate force and the speaker's point, whereas in the latter he explicitly distinguishes the tactical notion of force from the strategic notion of the speaker's point. That said, however, Recanati (1987: § 60) does take Dummett (1981) to task over his conception of assertion, as will be seen in section 3.4.1.[16]

3.3 The autonomy of linguistic meaning?

It was shown above that Davidson argues that there could be no conventional marker of force such that the presence of this marker would necessarily endow an utterance with the requisite force. This thesis has been challenged by Green (1997; 2000). Green claims that certain forms, if uttered in the performance of a speech act, do inevitably result in the speaker being committed to the truth of a particular proposition, or to holding it under another mode of commitment, such as conjecture. The condition 'if uttered in the performance of a speech act' is important for Green's analysis. He does not want to claim that, merely by speaking one of the forms that he discusses, one thereby performs an illocutionary act associated with that form, regardless of whether one is engaged in linguistic communication. For instance, an actor who used a particular form would not be taken to have performed the act conventionally associated with it beyond the realms of the dramatic representation she was engaged in.[17] If such a form existed, it would be a 'strong illocutionary

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[16] For an account of explicit performatives that argues that a speaker performs the act associated with a performative verb by stating under certain conditions that she is doing so, see Ginet (1979). Unfortunately, Ginet does not address the issue of why these 'statements' cannot be described as true or false.

[17] That the mere act of speaking a linguistic form as part of a dramatic representation might have consequences beyond the realms of that representation may seem the sort of possibility that only occurs to philosophers. As Green (1997: 222) points out, however, in certain societies (as, indeed, in the UK in not too distant times) blasphemous language cannot be spoken on stage without the actor suffering consequences.

force indicator', or 'strong ifid', in Green's terms.[18] A 'weak ifid' is thus a form such that to utter that form in the performance of a speech act is thereby to perform the act associated with it.

Candidates for the status of weak ifid are parenthetical performatives such as 'I claim' and 'I suppose', and Urmson (1952) certainly suggests that their function is to indicate how the proposition expressed by the main clause is to be taken. However, as Green (1997: 232) points out, any indication they might give is a rather weak one, cancellable by elements of the discourse. Thus, (28) is significantly affected by embedding in the discourse (29), so that the parenthetical can no longer be read as an indicator of force, but must be read as contributing directly to the proposition expressed by the sentence, which the speaker is questioning, as in (30). In (31), however, the speaker manages both to question the proposition that Mary is extremely creative and to remain committed to it.

(28) Mary, I claim, is extremely creative
(29) Let us ask if the following is true: Mary, I claim, is extremely creative
(30) Let us ask if the following is true: I claim Mary is extremely creative
(31) Let us ask if the following is true: Mary, as I claim, is extremely creative

Green distinguishes forms such as 'I claim' from those such as 'as I claim' by labelling the latter 'robust weak ifids', 'robust' because they make the same contribution to force regardless of whether they are embedded. Notice how these robust weak ifids also survive embedding in the antecedent of a conditional, unlike their non-robust counterparts:

(32) If Mary, I claim, is extremely creative, then she's bound to be a depressive

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[18] See Hare (1989) for claims that such a form could, in principle, exist. Green (1997) discusses Hare's view.

(33)   If Mary, as I claim, is extremely creative, then she's bound to be a depressive

The scope of 'I claim' in (32) is unclear, though a reading on which it applies to the whole sentence is probably the most likely.[19] Add 'as' to the parenthetical, however, and the scope is clearly narrow, showing that embedding has no effect on parentheticals of this type.

'As'-parentheticals, Green argues, indicate illocutionary force in two ways. First, all 'as'-parentheticals, regardless of whether the speaker is the subject, are 'weak indicators of assertoric commitment' in that they commit the speaker to the complex proposition formed by that transformation in (34):

(34) P, as NP V → NP V that P

So, the speaker of (35)a is committed to (35)b:

(35)   a.   Mary, as I claim/as Peter believes, is extremely creative

         b.   I claim that/Peter believes that Mary is extremely creative

Second, first-person attitudinal 'as'-parentheticals warrant what Green terms 'a weak ifid elimination inference', as illustrated by (36) (where ' ⊢' is a sign of assertoric commitment): [20]

(36)   a.   Mary, as I claim, is extremely creative

         b.   ⊢ I claim that Mary is extremely creative

         c.   ⊢ Mary is extremely creative

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[19] See Ifantidou (2001) for extensive discussion of the scope of parentheticals.

[20] The origins of the sign ' ⊢' will be discussed in section 6.

The move from (36)a to (36)b follows because 'as'-parentheticals are weak indicators of assertoric commitment, while the elimination of 'I claim that' is due to the fact that to claim is a form of assertion.[21] A speaker who uses (36)a in a speech act (assertoric or otherwise) is thus committed both to (36)b & c, even, as was seen earlier, if (36)a is embedded in the antecedent of a conditional, as (33) (repeated here) shows.

(33)   If Mary, as I claim, is extremely creative, then she's bound to be a depressive

Furthermore, the mode of commitment need not be assertoric. Consider (37) (where '$\triangle$' is a mode of commitment indicated by the subscript):

(37)   a.   Mary, as I conjecture, is extremely creative

       b.   I conjecture that Mary is extremely creative

       c. $\triangle_{conjecture}$ Mary is extremely creative

Saying (37)a in the performance of a speech act commits the speaker to holding the proposition that Mary is extremely creative as a conjecture.

Notice, though, that in discussing robust weak ifids, the talk has been of illocutionary *commitment* rather than of illocutionary *force*. In (31), the speaker manages both to question the proposition that Mary is extremely creative and to remain committed to it, but she cannot be said to both questioning the truth of and asserting that proposition.

(31)   Let us ask if the following is true: Mary, as I claim, is extremely creative

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[21] This holds only if one accepts that assertion is a genus of speech-acts. Williamson (1996), as will be seen in section 5, does not.

Green explains this by arguing that robust weak ifids do not mark force, but commitment. In other words, 'as I claim' in the latter discourse serves not to mark the complement as being uttered with assertoric force but to indicate assertoric commitment to the proposition expressed by the complement.

The set of propositions that one is assertorically committed to is larger than the set of propositions that one asserts, for it includes all those propositions that follow from what one has asserted, even those of which one is ignorant. Thus, when he asserts P, an individual commits himself to all that follows from P, such that if he later accepts that a consequence of P is false, then he must also withdraw his commitment to P. What is happening in (31), Green argues, is that the proposition that Mary is extremely creative is being put forward as a question, and the speaker, while expressing assertoric commitment to this proposition, is not asserting it. She is not asserting it, for Green, because she is not putting it forward for acceptance as part of the common ground. Thus, Green appears to follow Stalnaker (1978) in viewing the proffering of a proposition for inclusion in the common ground as an essential feature of assertion, for weak ifids are, Green argues, a means of expressing commitment to a proposition without risking rejection by one's audience (2000: 465-470).[22]

The importance of Green's work on weak ifids for the study of assertion is primarily that it shows how, as long as one restricts oneself to their occurrence in genuine speech-acts, the type of commitment one has to a proposition can be linguistically communicated in a robust manner. As such, they are evidence against a reading of what Geach (1965) calls Frege's point.

It's not clear that Geach's Frege point and Green's are identical, though they are related. For Geach, the point is that the same proposition may occur both asserted

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[22] Stalnaker's view of assertion will be discussed in detail in chapter 2.

and unasserted, as in the case in *modus ponens*, where P occurs unasserted in the antecedent of the conditional and asserted in the minor premise. For Green, the point is that if a form is embeddable, it cannot be an illocutionary force indicator. Both points stem from Frege's distinction between grasping a thought and judging it as true, a distinction which, according to Frege, cannot be marked linguistically.

Green's argument is that 'as'-parentheticals, being robust weak ifids, undermine Frege's point as long as one applies it only to their use the performance of speech-acts. However, although Green's observations regarding 'as'-parentheticals do pose a challenge for Frege's point, they form only a very restricted set. Moreover, labelling these forms indicators of illocutionary *force* somewhat masks Green's claim that these are not in fact indicators that a speech-act has been performed in addition to that performed by the utterance of the main clause. The view Green seems to be defending is that there is a sub-species of illocutionary force which entails an expression of the commitment associated with an illocutionary act without performing that act (so that expressing assertoric commitment is a species of force distinct from asserting, for example). Weak ifids are indicators of illocutionary force only in this weaker sense. That said, what Green does show is that, despite Davidson's arguments concerning the autonomy of linguistic meaning, a linguistic form which is a failsafe indicator of a certain type of illocutionary force does exist, as long as one restricts the cases considered to those constituting an act of linguistic communication.

Finally, Green's distinction between asserting and expressing assertoric commitment underlines the fact that there is more to assertion than merely committing oneself to the truth of what one says: one must also put forward the content of what one says for acceptance or rejection by one's audience.

3.4 Force and speaking seriously

In a number of places in the literature on assertion, on force more generally, and on mood, a link between speaking with a certain force and speaking seriously is

highlighted. Again, this is usually done in the context of discussions concerning the extent to which mood can be thought of as a marker of force. The argument is generally this: indicative mood cannot be a determinant of assertoric force because of the existence of linguistic practices involving the use of the indicative which do not involve the speaker making an assertion. Davidson lists play, pretence, jokes, and fiction, and says that at times it is even unclear whether a writer is asserting or not, as in historical novels (1979/2001: 110-112). McGinn (1977: 303) adds implicature to the list and Recanati discusses irony in this vein (1987: 263). Harnish (1994: 430), in attempting to develop a speech-act account of the meaning of mood-markers, is keen to have seriousness as a condition on a mood conveying the force associated with it. (As seriousness proves hard to pin down, however, he opts instead for literalness.)[23] Most of these cite Frege (1918-19/1997), who discusses the speech of actors in a play as an example of the use of the indicative without assertoric force.

While it is clear that merely using the indicative does not commit the speaker to the truth of the proposition expressed regardless of her intentions and contextual considerations, there is more to be said about the alleged counter-examples to this claim than is commonly done. The most obvious observation to make is that they don't form a natural class but need to be considered separately. With this in mind, the following will be analysed as counter-examples to the view that the indicative necessarily commits the speaker to the truth of the proposition she expresses: fiction; implicature; irony; recitation.

3.4.1 Fiction

Under this heading comes any form of storytelling in which it is clear that the communicator is not aiming to provide testimony. In other words, the communicator is not attempting to describe how things are in the world. This includes novels, jokes and plays, including impromptu 'plays' such as those performed by children engaged in play. Now clearly, the speaker who utters (38) while engaged in one of

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[23] Harnish's approach to mood will be discussed in more detail in chapter 3.

these activities has not made an assertion in the sense of saying something true about the world, otherwise it would not be possible to account for the confusion caused by the radio broadcast of Orson Wells' *The War of the Worlds*, when many listeners mistook a play for factual reporting:

(38)   The Martians have landed

However, speakers of indicative sentences in fictions do undertake a commitment of sorts: that is, they undertake to be consistent, for a story teller who contradicts herself will be rebuked by her audience in a manner parallel to the rebuke meted out to a reporter who gets her facts wrong. Clearly the consequences are more serious in the latter case, given libel laws, but it is necessary to ask to what extent the difference is due to the institutional setting. Reporting and storytelling intuitively have much in common, and the fact that the indicative mood is used in both and that that they both involve a commitment to consistency is worth analysing. One obvious approach is to consider them representations of different worlds, reporting being a representation of the actual world and storytelling a representation of another possible world. Given that a set of propositions can be analysed as consistent if it is true in at least one possible world, this perhaps provides a means of relating truth, consistency and the indicative mood across both assertoric and certain non-assertoric uses of this form. This possibility will be explored more fully in chapters 2 and 3.

On the question of how best to analyse the speech of actors in plays, Frege (1918-19/1997: 63) held that the expression of what appear to be assertions by actors are in fact utterances of forceless sentences. Dummett (1981: 311) objects that, if this were the case, then the observer would have no idea of what the actors were pretending to be doing, and that, rather than doing *less* than asserting, actors are in fact doing *more*, in that they are following conventions of assertion within the conventions of dramatic representation. Recanati (1987: 260-266) disagrees with Dummett, arguing that a distinction needs to be made between the force indicated by an utterance and the actual force. Mood, he claims, is an indicator of force, but its presence does not

guarantee the force indicated; and the speech of actors has only the indication of force, not force itself. However, Recanati (1987: 263) also uses the distinction between indicated force and actual force to explain the difference between A's and B's utterances in (39):

(39) A: You are an imbecile

B: Oh, 1 am an imbecile! Thank you very much

In A's utterance, the force is both indicated and actual (i.e. he is asserting that B is an imbecile), while in B's it is merely indicated. The problem for Recantati is that a dialogue such as (39) could easily arise in a play, and a means must therefore be found of explaining how the difference between the two utterances is noted by the audience. Dummett's claim that A is asserting the proposition he expresses while at the same time indicating that he does so only within the conventions of dramatic representation explains how the audience recognises how A's utterance differs from B's. Recanati, however, is committed to the view that both A's and B's utterances, if they occur in dramatic representation, only indicate force and that in neither utterance is the potential force realised. He therefore has no account of how the difference between them is recognised by the audience.[24]

Thus, fiction and dramatic representation have a role to play in the analysis of assertion, but they do not stand up as examples of the indicative used with none of the effects of assertion: the effects are restricted rather than absent, and this is what needs to be explained.[25]

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[24] It is not clear how Recanati reconciles the force-less analysis of the indicative he gives in section 40 of *Meaning and force* with the view he appears to hold in section 60 of the indicative as an indicator of assertoric force.

[25] A claim similar to Recanati's is made by Pendlebury: "Asserting, asking, and ordering have something in common even when they do not involve the same proposition, namely the commitment that is present when one speaks *seriously* and *for oneself*, but missing when, for example, one reads

3.4.2 Implicature

McGinn says that "a speaker's saying something in order to get across some implicature of what he literally says is not in general to be counted as an assertion of that thing" (1977: 303). This statement requires further consideration, in particular the qualification 'in general'. For present purposes, implicatures can be divided into two types: those that rely on the proposition expressed by the utterance as a premise in their derivation and those which do not.

(40) A: I'm hungry

   B: I cooked last night (IMPLICATURE: You should cook tonight)

(41) A: We should invite the Joneses to dinner

   B: Yes, they're *such* good company (IMPLICATURE: We shouldn't invite the Joneses to dinner)

In (40), B is stating that he cooked the previous night in order to imply that it is A's turn to cook this time. In such a case, A must employ the proposition that B cooked the night before in order to arrive at the intended meaning. In (41), by contrast, it is crucial that A does not employ the proposition expressed by B's utterance if he is to arrive at the intended ironic interpretation.[26] In the former case, it seems clear that B has made an assertion, while in the latter not. However, it is hard to see how one could justify the claim that cases of the type exemplified by (40) are less general than those like (41). So implicature is not a good case of the indicative not being used assertorically. Irony, meanwhile, is, and so that must be considered.

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aloud, or quotes, or reports someone else's words" (1986: 368, original emphasis). However, even when reading aloud one needs to be able to distinguish propositions expressed in the indicative mood but not asserted from those expressed in that mood and asserted (by, say, a character in the novel being read aloud).

[26] In Relevance Theory, this difference is captured nicely by whether or not the proposition expressed is an explicature of the utterance.

3.4.3 Irony and interpretive use

It is clearly not the fact that it relies on implicature that makes B's reply in (41) non-assertoric. Rather, it is the fact that B is disassociating himself from the proposition she expresses. In Relevance Theory (Sperber & Wilson 1986/1995: 224-243), this is explained by analysing irony as a case of 'interpretive use', i.e. of a representation being used not to represent a state of affairs ('descriptive use') but to represent another representation. In the case above, B's response represents a thought he is ridiculing, not one he is entertaining as true. Other cases of interpretive use include reported speech and summary. Being engaged in one of these cases of interpretive use, however, does not necessarily mean that the speaker is not asserting anything. In (42) the writer compares two views of evolution. The first he attributes to Lamarck, but this view is now universally rejected, and the author goes to lengths to make it clear that he is not asserting any of the claims he describes (as shown by the underlined phrases). There is a marked difference between this and his account of Darwin's views, where he is quite happy to have the views attributed to himself, these now being almost universally accepted, of course. The point is that both paragraphs are predominately cases of interpretive use, but the speaker can still be taken to have asserted much of the content of the latter, for in this case the interpretive use comes with an attitude of agreement. Thus, interpretive use is not necessarily at odds with assertion, though irony, a sub-type of interpretive use, most certainly is.

(42)   In 1809, a French naturalist by the name of Jean Baptiste Lamarck (1744-1829) published a
        book called *Zoological Philosophy*. In this book, <u>Lamarck claimed</u> that the environment
        directly moulded the form of an organism. <u>He said</u> that the environment caused organisms to
        acquire small changes which were then passed on to the next generation. For example,
        fossils had shown that the ancestors of giraffes had short necks. <u>Lamarck suggested</u> that
        competition for food at ground level encouraged these ancestors to sketch upwards in order
        to reach higher vegetation. <u>According to Lamarck,</u> this habitual stretching caused their necks
        to lengthen slightly and this characteristic was passed on to their offspring (whose necks
        would further stretch and so on). Over many generations, <u>Lamarck claimed,</u> these slight
        changes would accumulate to produce modern long-necked giraffes. <u>Lamarck's explanation</u>
        for adaptation is known as the inheritance of acquired characteristics. It is an instructionist

theory. Living things are pictured as malleable entities which the environment can directly shape, or instruct.

In 1859, Charles Darwin (1809-82) published *The Origin of Species*, in which he offered a wholly new explanation for adaptation. Darwin pointed out that there exists a great diversity of living things. Even within one species, each individual is slightly different. such variations occur quite independently of the environment - they are random. However, in the intense competition of life, even the tiniest of variations can affect the fitness of an individual. For example if, by chance, one of the giraffe's short-necked ancestors happened to have a slightly longer neck than the others, it would be able to reach leaves its fellow creatures could not. This characteristic would give the animal a survival advantage and it would therefore leave more offspring in the next generation than its fellow creatures would. Because the variations are inherited, beneficial ones become more common in the population, whereas disadvantageous variations become less common. The population becomes better and better adapted to the environment. Darwin's theory is selectionist. Characteristics occur initially by chance and are then selected by the environment.[27]

3.4.4 Recitation

McGinn also points to recitation as a case of force-less language use. There is little to say about this, other than to express general agreement with McGinn. However, one could point to the oath read aloud when giving testimony in court as a counter-example. In this case, institutional conventions make the reading aloud of a certain text a force-*full* event.

It has been shown, then, that many of the examples of putative force-less language use actually benefit from closer scrutiny. Fiction and dramatic interpretation, in particular, have much in common with clear-cut cases of assertion and it will be necessary to bear this in mind when developing a new analysis of assertion and mood in later stages of this thesis (in particular, during chapter 3 section. 2.3).

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[27] *The Man who Made Up his Mind*, BBC Education

3.5 Embedded mood

A possible use one might make of the notion of assertoric force is to explain the difference between embedded and independent indicative clauses. Some sort of distinction is needed in order to explain the double occurrence of P in a modus ponens argument, as given schematically in (43):

(43) $P \rightarrow Q$

   $\dfrac{P}{Q}$

The premise of this argument would be redundant if P in the first premise were asserted. Characterising it as an unasserted constituent of a more complex proposition, which is asserted, removes this problem.

Much more will be said about this in section 6: at this stage the question of mood, force and embedding will be considered more generally. Broadly, two issues will be discussed: whether embedded clauses can carry assertoric force and whether mood in embedded clauses makes any contribution to meaning when it does not convey force.

On the question of whether embedded clauses can carry assertoric force, there are two views in the literature. Dummett (1981) is quite clear that only the proposition expressed by the main clause of an indicative sentence is asserted, while other authors, such as Geach (1965), have it that that certain embedded clauses are also asserted.

Dummett's view is motivated by his concern to defend the view that the indicative can be seen as the natural language equivalent of Frege's assertion sign. However, a simple declaration of this position would have it that the antecedents of indicative conditionals are asserted, which is clearly not the case (as has just been noted), or that the speaker performs as many assertions as there are indicatives in her sentence,

which is also an undesirable position to have to defend. Restricting force indicators to the main clause of a sentence, as Dummett does, avoids these problems.

Geach, on the other hand, has it that subordinate clauses introduced by 'the fact that' are asserted by the speaker, as are those introduced by factive verbs such as 'point out'. In cases such as (44) and (45) the speaker is said to have performed a double-barrelled assertion, with one assertion committing the speaker to the proposition expressed by the main clause, and the other to that expressed by the subordinate clause.

(44)   Peter is aware of the fact that his wife has arranged a surprise party for him

(45)   Peter pointed out that Chomsky is an American citizen

Interestingly, Geach also claims that such a double-barrelled assertion takes place with 'under the illusion that', as in:

(46)   Peter is under the illusion that he is the son of God

In this case, however, the embedded assertion is the negation of the embedded clause (i.e. that Peter is not the son of God), so, for Geach, it appears that asserted propositions do not have to be explicitly expressed, but can be implicitly communicated. Thus, it seems that for Geach commitment, through entailment, to truth is all that is required for a proposition to be asserted.

Also relevant here (again) is Urmson's (1952) notion of the parenthetical use of certain verbs, such as 'suppose':

(47)   a.   I suppose that's his wife

        b.   That's his wife, I suppose

        c.   That, I suppose, is his wife

While a case might be made to the effect that the presence of suppose in (47)b or c is in fact syntactically detached from the 'that's his wife'-clause and that, consequently, this clause is not embedded (Ifantidou 2001), (47)a is also open to the same interpretation as (47)b and c, and in this case it certainly appears that the embedded clause is the main assertion of the utterance. Parentheticals have been analysed by a number of authors (Blakemore 1990/91; Ifantidou 2001; Wilson & Sperber 1993) as consisting of two utterances, one of the proposition expressed by the embedding clause and one of that expressed by the embedded clause. Whether these are double *assertions*, however, is not clear, and will ultimately depend on how assertion is defined.

It seems, then, that though one might not want to go as far as Geach, it will be hard to deny that certain embedded clauses can have assertoric force in that they commit the speaker to the truth of the proposition they express and put forward that proposition for acceptance, confirmation or rejection by the hearer. Consequently, Dummett's position on this issue is hard to maintain. That said, it may be that on closer inspection a number of cases where the speaker is committed to the truth of an embedded clause are better analysed as cases of presupposition due to a lack of an informative intention, (44) being a case in point. This will depend on how assertion is related to information structure, a topic to be discussed in section 7.

Moving to the second issue, it does indeed seem that mood can make a contribution to the meaning of embedded clauses on those occasions when it does not indicate the force of the utterance.

(48) a.   Rick thinks he knows that Sam will play it again
       b.   Rick thinks he knows whether Sam will play it again
(49) a.   Peter insists that Mary went to the party
       b.   Peter insists that Mary go to the party

In (48), which is due to Pendlebury (1986: 363), a and b have different truth conditions: (48)a would be true if Rick answered 'yes' to the question 'Will Sam play it again?'; while (48)b could be true whether he answered 'yes' or 'no'. Similarly, (49)a and b clearly differ in meaning. Of course, these only show that embedded mood affects meaning if one accepts that the subordinate clauses are embedded versions of main-clause indicatives, interrogatives and imperatives. While a reasonable case against this view might be made for imperatives (their use being much more restricted than their embedded counterparts, which are probably best seen as infinitives rather than embedded imperatives), as far as indicatives are concerned there is little evidence that embedded and main clause occurrences are linguistically distinct. If this is the case, then parsimony will make preferable an account of the meaning of the indicative which does not posit mood making a distinct semantic contribution in main-clause and embedded uses. Given that it has been shown that in some cases an embedded indicative can convey assertoric force, an acceptable account of assertion will thus have to explain under what conditions this can happen and, when it does not happen, how the encoded meaning of the indicative nevertheless contributes to the interpretation of the sentence.

3.6   Conclusion to section 3

The relationship between the indicative mood and assertoric force is far from straightforward: an adequate account will have to explain the observations made in this section. In particular, an account of stage-assertions and fiction will be needed, as well as of why both embedded and main clause indicatives at times convey assertoric force, and at times do not. Before seeking to develop such an account, however, it is necessary to return to the issue of why one might want a notion of assertion. In this section, it has been considered in terms of its possible role as a 'meaning' for the indicative. However, there are other uses the notion might be put to.

4   COMMUNICATION

It was noted in section 2 that truth is employed as a means of explicating linguistic meaning, so that the meaning of the proposition expressed by an utterance can be

given in terms of its truth conditions. This section notes that a number of theorists (e.g. Grice 1989; Lewis 1975) have sought to explain the mechanics of human communication by postulating norms or conventions of truthfulness. This may seem like an obvious step to take, the logic behind it being as follows: linguistic meaning is best understood in terms of truth-conditions; people can therefore say true or false things; people use language to communicate; for this to succeed they need to assume that those they are communicating with are being honest; therefore there must exist a convention/norm of truthfulness such that interlocutors generally assume that they are to be truthful and can expect to be taken as being truthful. If this line of thought is followed, assertion, i.e. speaking with the intention of saying something true, then becomes the paradigmatic case of linguistic communication.

However, the claim that speakers try to be (and are expected to try to be) truthful can be taken a number of ways, as Wilson & Sperber (2002) point out (see also Wilson 1995). First, if such a line is taken, it can apply to different levels of meaning: either to the speaker's overall contribution to the conversation or to what she 'literally says'. Second, it can be thought of as a moral obligation to avoid deception, or, more strongly, as the basis on which particular modes of linguistic communication, such as metaphor and irony, depend. Each of these distinctions is examined in turn below.

Given a sentence such as (50)a, most speakers of English would assume that the speaker's intention was to communicate (50)b. However, as the valid inference (51) shows, this is not what is encoded by (50)a. It seems, then, that deriving (50)b from (50)a is matter of pragmatic inference rather than decoding.

(50) a.   Some of the children have left

b.   Not all of the children have left

(51) If some of the children have left, we can go home

All of the children have left

Therefore, we can go home

For some authors, such as Grice, cases like (50) are grounds for distinguishing a level of literal meaning, or what is said, which plays a role in the interpretation of utterances of sentences such as (50)a. The idea is that on the basis of what the speaker 'literally says', the hearer can infer what she means on that occasion of utterance. This view and its more sophisticated variants have been seriously challenged by relevance theorists such as Sperber & Wilson and Carston (see Carston 2002b: chapter 2 for extensive analysis and references). What is of concern here, though, is at which level the speaker might be said to be following the norm of truthfulness: at the level of 'what is said' or at the level of what is meant?

The point becomes crucial when the second of the two distinctions drawn above is considered: between positing a norm of truthfulness as a moral imperative or as the basis of an explanation of certain aspects of linguistic communication. Metaphor and irony have often been thought to be parasitic on a norm of truthfulness, the idea being that the speaker says something which she clearly does not believe to be true and thus invites her audience to infer her intended meaning on the grounds that she has blatantly failed to observe the supposed convention of truthfulness. If such an account is to work, however, it seems clear that a distinction must be drawn between being truthful in terms of what one means and in terms of what one says. This is because even in cases of irony and metaphor, speakers are still expected not to deceive, though the point relates not to the propositions 'literally' expressed by their utterances but to the message inferred on the basis of their blatantly expressing a false proposition (Wilson & Sperber 2002).

Grice's formulation of the supposed convention of truthfulness, his Maxim of Quality, seeks both to capture this distinction between what a speaker means and what she says and to provide a basis for the analysis of metaphor and irony:

Grice's Maxim of Quality (Grice 1989: 27)

Supermaxim: Try to make your contribution one which is true.

    (i)   Do not say what you believe to be false.

    (ii)   Do not say that for which you lack adequate evidence.

The supermaxim requires speakers to try to make their *contribution* true, i.e. not merely the proposition their utterance expresses but all that they intend to communicate by that utterance: both its explicit and its implicit content. The submaxims, by contrast, relate only to what one says, i.e. the propositions explicitly expressed. On this view, the speaker of a metaphoric or ironic utterance flouts the first submaxim and invites the audience to infer a message on the assumption that she is still observing the supermaxim, i.e. that she wants to communicate something true even though she has said something which she patently believes to be false.

However, as Wilson & Sperber (2002) point out, this analysis runs into problems once the meaning of 'say' in the submaxims is scrutinised. 'Say' can be analysed either as merely expressing a proposition or as asserting it, the former differing from the latter in that there is no commitment to truth. On the first reading, the speaker of an ironical or metaphoric utterance flouts the first submaxim by expressing a proposition she believes to be false. This then triggers the inference of her intended meaning. The problem here, though, is that Grice has it that implicatures are derived in order to ensure that the maxims are being adhered to, but on this account the inferences do not result in the speaker saying something she believes to be true. A defender of Grice could argue, though, that as long as the supermaxim is observed, then the spirit, if not the letter, of the maxims is being observed, and indeed it is in these terms that Grice speaks of the derivation of implicatures in his *Retrospective Epilogue* (1989: 370). All the same, responding to objections of the sort raised by Wilson & Sperber by claiming that the maxims were being followed 'in spirit' does not exactly amount to a robust defence.

On the second reading of 'say', the role of the maxim of truthfulness becomes unclear. As Wilson & Sperber point out, if assertion already entails intending to speak truthfully then the maxim of truthfulness is redundant. Indeed, one could provide the sort of account of irony and metaphor that Grice aims for simply by positing a moral imperative to be truthful and the notion of assertion. Then, when a speaker asserts a manifest falsehood, she triggers an inferential procedure aimed at reconciling this with the assumption that she is following the moral imperative to be truthful, and this results in the derivation of the speaker's implicit meaning. The problem with such an account is that it suggests no rationale for speaking figuratively: why not simply say explicitly what one means? This is in contrast to their own relevance-based account, which, as will be seen in chapter 2, justifies the extra effort involved in interpreting figurative utterances by showing that these result in a quality and range of effects that literal paraphrases do not (Wilson & Sperber 2002).

That speakers are expected to be truthful in terms of their contributions to conversations is not a claim that many would want to deny. Nevertheless, accepting this does not entail accepting that communication fundamentally relies on a convention of truthfulness. It may well be that there is a more fundamental consideration guiding human verbal communication. As will be seen in chapters 2 and 3, a presumption of relevance is a strong candidate for such a fundamental role. At present, though, it is simply necessary to note that an account of linguistic communication that relies on the notion of a manifestly false assertion to solve the problems of metaphor and irony is not unproblematic.

5 KNOWLEDGE TRANSFER

Given the role of communication in the transfer of knowledge and the premium put on reliable information, it is to be expected that humans have a linguistic practice such that by engaging in that practice they thereby take responsibility for the quality of the information they communicate. This is the view put forward by Williamson

(1996), who argues that assertion is the means by which individuals take on responsibility for information they share with others.[28]

In an attempt to distinguish it from all other speech-acts, Williamson seeks a constitutive rule for assertion. A constitutive rule is, as the name suggests, a means of isolating the essence of an activity, and the rule that constitutes assertion, Williamson argues, can be expressed in the form given in (52):

(52)   One must ((assert that P) only if certain conditions pertain)

Formulating the constitutive rule for assertion requires specifying what the 'certain conditions' are. Williamson argues that the condition cannot simply be that P be true, for this would fail to individuate assertion, there being other at least one other speech-act, i.e. conjecturing, which also requires that it only be performed if the proposition expressed is believed to be true. In addition to conjecturing that P, Williamson uses swearing that P as another example of an act that would meet the condition of truth. One might want to argue that swearing that P is a strong form of asserting that P, but this, Williamson argues, would not undermine his case: for him, the key point is that assertion lies on a cline between conjecturing and swearing, with each point on the cline having different standards of warranting evidence. Someone wanting to maintain that truth individuated assertion would have to argue that the standard of evidence required for assertion was "more intimately related to truth" (1996: 497) than is the case with other speech-acts aiming at truth.

For Williamson, what distinguishes assertion from other speech-acts aiming at truth is precisely that the standard of evidence it requires is different from that required by the others. And the evidence required for assertion, Williamson argues, is

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[28] Another author who is concerned with the relationship between responsibility and assertion is Watson (2004).

knowledge. Now, it may be felt that it is difficult to say with any certainty what one truly knows (as opposed to what one strongly believes), but a consideration of mental and perceptual states that entail knowledge reveals that people are generally happier to talk about what they know than might be indicated by the philosophical alarm-bells that this word sets off. For example, people are generally quite happy to say that they remember that P, that they regret that P and that they saw that P, all of which entail that they know that P (Williamson 1995).

On this view, the rule constitutive of assertion is:

(53)   One must ((assert that P) only if one knows that P)

It is important to note that the claim is not that people only assert what they know, rather that they are open to rebuke if it turns out that they do not know what they assert. As García-Carpintero puts it:

> It is of course no objection to such an account that there are assertions whose producers lack knowledge of the contents they assert. The claim is not that knowledge by the asserter [...] of the asserted proposition is essential; the claim is rather that being subject to blame if knowledge [...] are missing is essential (2004: 145).

Attempting to show that knowledge is what warrants assertion, Williamson (1996) imagines a lottery in which the chances of winning are very low, say 14 million to 1, and in which there can only be one winner. A friend of yours has only one ticket and you say to him, after the draw has taken place but without either of you being aware of the outcome (but both aware of the odds):

(54)   Your ticket didn't win

The crucial point about (54) is that one can be very sure that it is true (the odds on it not being true are 14 million to 1), but it is still faulty in the circumstances described. If assertion were warranted by truth, though, then (54) should be OK, for

it is highly likely to be true. The fact that (54) is not acceptable leads Williamson to conclude that what warrants assertion is not the truth P, but that the speakers knows that P (as opposed to justifiably believing that P).

Moreover, as Williamson points out, there is a difference in effect between (54) and (55) which would not exist if assertion were warranted by truth. (54) would be warranted, according to a defender of the truth-theory of assertion, by its almost certain truth. One should therefore expect, on this view, that (55) (which explicitly expresses the almost-certainty of the proposition expressed by (54)) would have the same effect and therefore be faulty in the same way. However, while (54) could be responded to, in the circumstances under consideration, by asking 'How do you know?, (55) could be responded to by saying 'I know (1996: 499-500). Or, to make the point another way, while (54) would be felt deceitful in the situation described, (55) would merely be uninformative.

(55) Your ticket is almost certain not to have won

Indeed, the fact that one can respond 'How do you know?' to an assertion, he argues, indicates that assertion presupposes knowledge. Moreover, 'Do you know that?' is an aggressive response to assertion, and the aggressiveness can be explained by the fact that it calls into question the speaker's warrant to assert (1996: 505-506).

The fact that speaker's often assert when they do not have knowledge, Williamson goes on to argue, is not a problem for his account, as breaking a constitutive rule (a norm) does not mean that the activity it constitutes does not take place. There are different standards of rules for different occasions (the offside rule is not generally observed in informal games of football). Thus, in gossip, although one may speak without knowledge, it is not that the knowledge rule is not in force, but that breaking it is of little consequence (1996: 511).

As noted above, the reason there exists a speech-act that is warranted by knowledge rather than (highly probable, belief-warranting) truth, Williamson suggests, is that, when one asserts, one takes responsibility for the truth of what one says, a responsibility one discharges by epistemically ensuring the truth of the content. It is because humans have a use for relations of responsibility, then, that the act of assertion exists (1996: 521-522).

Williamson's claims here are supported by the variety of means speakers have available to avoid taking epistemic responsibility for the propositions they utter, even when they are inclined to take them to be true. Evidential particles are the obvious example, but the epistemic use of 'must' and 'can't' are notable as means of presenting a proposition as certain without claiming knowledge.

While generally very sympathetic to Williamson's knowledge-based view of assertion, García-Carpintero (2004) argues that it doesn't truly reflect the social function of assertion as a means of *transferring* knowledge. Someone performing soliloquies in the absence of an audience could be complying with the knowledge rule, even though she would not be communicating anything to anybody. And surely, if one wants to explain assertion in terms of responsibility for information garnered via communication, then it must be viewed as primarily a communicative act. Moreover, Williamson's knowledge rule can be argued not to individuate assertion, as someone who claims that knowledge is a prerequisite for assertion is also likely to view it as a prerequisite for presupposition: surely the grounds for one's presuppositions must the same as those that warrant one's assertions. García-Carpintero (2004: 159) therefore proposes that the knowledge rule be replaced by the transfer of knowledge rule (56):

(56)   One must ((assert P) only if one's audience comes thereby to be in a position to know P)

For Williamson and García-Carpintero, one either asserts or does not: there can be no degrees of assertion or qualified assertion. Thus, for these authors, parenthetical utterances of the type 'P, I believe' are not, as they are often described, qualified assertions of P, for they explicitly deny knowledge of P. Indeed, adopting this view of assertion would mean excluding a great many cases of what theorists have been happy to call assertions. Moreover, this view also implicitly denies that assertion is a genus of acts, in contrast to Dummett (1981: 356) and others (see e.g. Vanderveken 1990: 169 for a list of what he considers to be assertive speech acts).

The relationship between responsibility and assertion that Williamson and García-Carpintero see as central is also crucial to the study of linguistic communication from a sociological point of view (see Brandom 1983; 1994 for an approach to assertion from this perspective). This is especially so in the case of testimony, which relies on speakers both being committed to the truth of what they say and taking responsibility for the veracity of the information they provide. Coady (1992) provides extensive philosophical discussion of the nature of testimony. An explanation of the means by which children learn by testimony, as opposed to observation, will also have to make reference to linguistic practices aimed at truth and the recognition of these by those children. There seems to be no work that explicitly relates testimony in this sense to assertion, though work by Harris (Clément *et al.* 2004; Harris 2002, 2004) provides interesting discussion of the importance of testimony as a source of knowledge.

6 INFERENCE

Current thinking on force can be traced back to Frege, but his concern was not exclusively with force as an element of natural language, but also – and perhaps primarily – with its use in logic. Frege argued, as did Russell and Whitehead in the *Principia Mathematica*, that a perspicuous logical notation requires a symbol denoting assertion: ' $\vdash$ '. The effect of this is to mark the formula that follows it as having been judged true. Frege has been criticised, most notably by Wittgenstein (1958: 10-11), for this move, on the grounds that judging to be true is a

psychological process resulting in an attitude towards a proposition: it has no effect on the implications of that proposition and therefore should have no place in a logical symbolism.

Given that Frege was so keen to keep psychology out of logic (1918-19/1997: 342), it is perhaps puzzling that he should be so insistent on the need for an assertion sign. Geach (1976: 63) argues that the sign is a necessity in a logically perspicuous notation in order that suppositions be distinguished from assertions when making a supposition for the sake of a *reductio ad absurdum* argument. Dummett (1981: 309), however, insists that this was not Frege's reason for wanting an assertion sign and argues that supposition plays no role in Frege's logic, its place being occupied by the assertion of conditional sentences. Thus, rather than make a supposition such as (57), Dummett claims, Frege would assert a conditional such as (58),

(57) Suppose the killer is a vegetarian. It then follows that he can't be a cannibal.
(58) If the killer is a vegetarian, he can't be a cannibal.

Green (2002) and Smith (2000) argue that in order to understand Frege's insistence that an adequate logical symbolism contain an assertion sign, it is necessary to consider the use to which Frege wished to put his logic. Green explains that Frege saw his project as related in part to Leibniz's conception of a *lingua characteristica*, an ideal of a number of seventeenth century writers who aimed to develop a system that would allow for the clear and precise expression of all thoughts, provide a lingua franca for communication among all peoples, and "serve as an organon for the discovery of new truths or for the systematization of what is known" (Green 2002: 207). Green argues that most scholars, concentrating on Frege's desire to construct a system suitable for the first of these aims, ignore the fact that he also saw his logical enterprise as contributing to the third. Given this aim, it is necessary for him to formally distinguish what is (taken to be) true, so that any further knowledge derived from this by the laws of logic would be also be true and could be shown to be so. Modern-day logicians, however, have different concerns, being interested in

examining the properties of formulas and what these imply given certain inference rules. The point they would make to Frege, as was noted above, is that one's attitude towards a formula makes no difference to what it implies, and hence is of no concern to those studying the behaviour of these forms (Green 2002; Smith 2000).

Green goes on to argue that that rather than viewing Frege's assertion sign as marker of assertoric *force*, it should be viewed as a marker of assertoric *commitment*, given that it will preface not only those propositions asserted but also those that follow logically from them and from others so prefaced.[29] The notion of assertoric commitment, as was seen in section 3.3, is thus intended to account for the fact that what an individual asserts commits her to much more than the content of her assertion, some of which may actually be unknown to her and, indeed, come as a surprise.

While modern-day logicians may not have any use for the assertion sign, those who employ logic in an attempt to analyse human cognition are in many ways engaged in a project parallel to Frege's. Just as Frege wanted to develop a logical system that would serve as an organon for the discovery and systemisation of truths, so the cognitivist seeks a system to model the human ability to form an accurate-enough mental representation of the world. Such a system must have a means of distinguishing thoughts held as true representations of the world from those entertained in the process of, say, imagining, for whatever purpose, other possible states of the world. Indeed, Geach suggests that there might be a correlate to assertoric force in the realm of thoughts: "possibly a thought is assertoric in character unless it loses this character by occurring only as an element in a more complicated thought" (1965: 457). This point will be returned to in chapter 2, when the relevance-theoretic view of mental representation is discussed.

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[29] To this one might add that most conceptions of assertoric force appear to have an informative element which Frege's assertion sign does not convey.

There are further concerns, as was noted earlier, relating to the relationship between natural-language assertion and assertion in logic. Some authors, such as Dummett (1981; 1993; 1995), have suggested that the indicative mood in main clauses can be considered a natural-language equivalent of Frege's assertion sign. However, there is a duality to the linguistic sign which is not found in the logical symbol. The logical symbol signals that the propositional form following it has been judged true. It is unequivocal. However, the presence of the indicative mood (if indeed it is a natural-language assertion sign), need not signal that an assertion is being made, as was seen in section 3.4. Hare (1970/1971: 89-93; 1989) therefore distinguishes between the mood-marker a linguistic expression carries and the force with which it is employed by terming the former the 'tropic' and the latter the 'neustic'. (He calls the proposition expressed the 'phrastic'.) He describes the roles of the topic and neustic as follows: "although a neustic has to be present or understood before a sentence can be used to make an assertion or perform any other speech act, it is in virtue of its tropic that it is used to make an assertion and not to perform some other speech act" (Hare 1970/1971: 92). Assertions, then, are not guaranteed by the presence of the appropriate tropic, on Hare's view, but cannot be made without it.[30]

Hare uses the division of labour between the topic and the neustic to explain what happens when indicative clauses are embedded in 'if'-clauses and certain 'that'-clauses:

(59)   a.   The boss is leaving the party early

        b.   If the boss leaves the party early, we can all let our hair down

        c.   It is true that the boss is leaving the party early

        d.   It is not true that the boss is leaving the party early

        e.   Leave the party early, boss!

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[30] See Dummett (1995: 115) for his views on Hare's terminology.

For Hare, what distinguishes (59)a. from the embedded instances of this in (59)b, c & d is that in the latter cases the assertive neustic is missing, although they share the same tropic. For this reason, only (59)a can be read assertorically. (59)e, on the other hand, differs from (59)a in both tropic and neustic. This, according to Hare, explains why the inference (60) is valid while (61) is not (complications due to differences in aspect are ignored).

(60) *Premise*: If the boss leaves the party early, we can all let our hair down

     Premise: The boss is leaving the party early

     Conclusion: We can all let our hair down

(61) *Premise*: If the boss leaves the party early, we can all let our hair down

     Premise: Leave the party early, boss!

     Conclusion: We can all let our hair down

That is to say, for *modus ponens* to go through, the minor premise must have both the same tropic and phrastic as the antecedent of the conditional. However, as far as logic is concerned, the distinction between tropic and neustic is only necessary if one is interested in inferences that lead to action (or, perhaps, the asking of questions), for only in such cases will there be a need to distinguish between propositions put forward as true and those put forward as courses of action, as would be the case if one were attempting to develop a system of inference to direct action. In such a case, one would want the output of such inferences to be expressed by imperatives rather than assertions. The neustic/tropic distinction is thus a concern for Hare, who is concerned with ethics, and Grice (2001) in his work on reasoning, because in such cases a distinction must be marked, on the one hand, between those propositional forms which are both assertoric and in fact asserted and those which are assertoric but not asserted; and, on the other hand, between those which have assertoric potential and those which do not (such as imperative syntax in natural language). However, in the absence of a need for non-assertoric propositional forms, all that

will be required is the two-way distinction between asserted and non-asserted propositional forms (cf. Recanati 1987: 263). This was the need felt by Frege and Russell.

Hare's point about *modus ponens*, though, does touch upon the concerns of Frege and Russell. As was seen briefly in section 3.5, in one sense something is needed to distinguish the P of the minor premise from the embedded P of the conditional and thus avoid the redundancy that would result if they were indistinguishable. In another sense, however, both Ps need to be the same, so that the inference goes through. Similarly, Q in the first premise must be distinguished from Q in the conclusion if the argument is not to be circular. In both cases, the assertion sign provides just the right amount of difference and similarity, so that a perspicuous rendering of *modus ponens* would be as in (62), with assertions clearly marked (Dummett 1981; Geach 1965; Green 2000; Hare 1970/1971):

(62) $\vdash (P \rightarrow Q)$
$\underline{\vdash P}$
$\vdash Q$

This illustrates nicely Frege's concern that the assertion sign not be understood as contributing to the content of the assertion: P and Q represent the same content throughout (62) and the assertion sign does not add content but signals force. Recall that Frege (1918-19/1997) also made the claim that no content-bearing sign could function as a marker of assertion: it could always be deprived of this force by, say, embedding in a conditional or being used by an actor, he argued. As section 3.3 showed, though, a weakened version of this claim has been challenged by Green's (1997; 2000) identification of robust weak-ifids.[31]

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[31] Another author who emphasises the centrality of inference to a proper understanding of assertion is Brandom (1983; 1994), who argues that "[t]o put a sentence forward as information is thus to present it as fodder for inferences leading to further assertions" (1983: 640). As noted above, Brandom's

This discussion of the role of assertion in inference will be important in later sections, when the nature of mental representation and its relationship to assertion is discussed. It will be shown that assertion can be characterised in terms of attempting to have an effect on a context made up of mental representations which are assertoric in character, and the indicative mood distinguished by its potential to make available propositional forms of the correct format (of the correct 'tropic', in Hare's terms) to have such an effect (see, in particular, chapter 3 section 2.3).

7 INFORMATION STRUCTURE

Assertion is also central to accounts of information structure. When one makes an assertion, one clearly commits oneself to far more than the proposition expressed by the utterance. For example, as speaker who utters (63) not only commits herself to the proposition that her sister is coming, but also to the proposition that she has a sister.

(63) My sister is coming to visit today

For some writers, this is evidence that what is asserted goes beyond the proposition expressed, while for others assertion is limited to the proposition expressed. Let's call the former view the Russellian view, and the latter the Strawsonian view, reflecting the concerns of two philosophers whose debate focussed attention on this issue (Russell 1905, 1957; Strawson 1950/1971). The debate will not be reviewed here, however, as it is well documented elsewhere (see Levinson 1983: 169-177).

The Russellian clearly does not want to have it that all that an utterance explicitly and implicitly communicates is asserted; rather, what is asserted, on this view, is the set of propositions necessary for a sentence to be truth-evaluable. On this view, a

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main concerns are with the social norms he sees as regulating assertion, though, and as such are not of great relevance to a cognitively oriented approach such as is being developed here.

sentence such as (64)a can only be given a positive truth-value if the queen of Sheba exists and hence (64)b must be part of the meaning of (64)a, and someone who asserts (64)a also taken to have asserted (64)b, among other things.[32]

(64) a.   The queen of Sheba is bald
      b.   The queen of Sheba exists

For the Strawsonian, this confuses sentence types and utterances. Of course, they reply, the speaker of (64)a is committed to (64)b, but it does not follow that (64)b is part of what is asserted by an utterance of (64)a. Rather, (64)b is taken for granted, or presupposed, by the speaker of (64)a: it is presented as part of the common ground to which (64)a is to be added.

The advantage of the Strawsonian account, as Levinson (1983: 173) points out, is that it meshes nicely with intuitions about foregrounding and backgrounding of information: it is felt that the speaker's main point in uttering (64)a would be the attribution of baldness to the subject, and that (64)a would be a strange way of communicating (64)b. It thus brings an informative element to the notion of assertion, such that to assert is not merely to claim truth but also to present information as new to one's audience.

This is certainly the view which has held sway in linguistics, where there has been a great deal of work both on presupposition (for recent reviews of the literature, see Beaver 2001; Kadmon 2000) and on the related issue of information structure. Such a view is at the heart of Stalnaker's (1978) conception of assertion, and of Lambrecht's (1994). As was mentioned briefly in section 3.3, Stalnaker actually

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[32] Russell certainly seems to have thought that all the elements of the logical form of a definite description are *asserted* by the speaker who asserts a sentence containing that definite description: "Thus when we say "*x* was *the* father of Charles II." we not only assert that *x* had a certain relation to Charles II., but also that nothing else had this relation." (Russell 1905: 481-482)

characterises assertion as having the essential effect of adding the proposition expressed to the common ground, though he is quick to point out that this alone does not define assertion, as other acts, such as supposition, have the same effect. Lambrecht equates what is asserted by a sentence with new information.

Abbott's (2000) view is different in that she wants to avoid claiming any necessary link between presuppositions and old information or common ground. Presuppositions, she argues, are simply nonassertions. This, of course, raises the question of what an assertion is, and Abbott has no answer to this. Rather, she suggests that there is such a thing as an "ideal assertion", which is "one atomic proposition, consisting of one predicate with its unanalyzed arguments" and which typically corresponds to the main clause of the utterance (2000: 1431). Thus, for Abbot there is an inherent limit to what can ideally be asserted by one sentence, and any other information must be expressed in another manner, i.e. by being presupposed. It does not follow, however, that presupposed information must be old information, she argues. It may well be, but since there are plenty of cases where information marked as presupposed is new (she gives examples of definite descriptions, 'it'-clefts, reverse 'wh'-clefts, embedded announcements and non-restrictive relative clauses used this way) one should, on her view, consider presupposition mechanisms not as markers of old information, but as markers of nonassertion.

In the absence of a clear picture of assertion, Abbott's claim that there are such things as nonassertions is unsatisfying. Nevertheless, it is clear that for many people the notion of assertion includes an element of information structure, and bringing an element of information structure into the notion of assertion would assist with some of the cases discussed in section 3.5, particularly those where there is a backgrounding effect, such as in the embedded clause in (44) (repeated below with (45)). However, where utterances open to a parenthetical reading are concerned, such as (45), it is likely to prove more difficult to avoid the claim that more than one assertion has taken place, though one may want to consider the usefulness of

Green's notion of assertoric commitment (discussed in section 3.3) here. On this view, the speaker could be said to be asserting the complex proposition expressed by (44) in its entirety, but merely expressing assertoric commitment to the proposition expressed by the embedded clause (i.e. that Peter's wife has arranged a surprise party for him) (cf. Green 2000: 466-467).

(44) Peter is aware of the fact that his wife has arranged as surprise party for him

(45) Peter pointed out that Chomsky is an American citizen

Before concluding this section, however, it needs to be pointed out that presuppositions are features of questions and commands as well as of assertions:

(65) a.   I have to take my cat to the vet
      b.   Take my cat to the vet
      c.   Have you taken my cat to the vet?

All the utterances in (65) presuppose that the speaker has a cat, yet only (65)a is an assertion. It might therefore be argued that the opposing of assertion and presupposition is misguided. What appears to be needed as a complement of presupposition is in fact something more general, such as utterance force. Of course, the implications of this observation for accounts of presupposition which rely on the notion of assertion will ultimately depend on how they relate assertion to the other forces.

8   CONCLUSION

In this chapter a great deal of ground has been covered. It will therefore be useful to identify some of the key points to emerge from this discussion in order that they can be borne in mind and easily referred to in subsequent chapters.

1. **Assertion and truth.** A number of authors argue strongly (Barker, García-Carpintero, Dummett) that the notions of truth and assertion cannot be

70

analysed independently. On this view, there is a notion of truth just because there is a notion of assertion: without assertion there would be no notion of truth. This is not the obvious way to think about matters: it may be more normal to think of truth as prior to assertion, for assertion involves commitment to truth. However, attempting to separate truth from assertion and applying it to propositions results in the creation of another predicate, that of 'obtaining'. Such a shift, though, would mean that our understanding of linguistic meaning were no longer grounded in the natural-language concept of truth.

This point has important implications for accounts of linguistic meaning that rely on truth. The implication is this: such theories give the meaning not of sentences of natural languages but of the propositions they express, and the term 'true' in a T-sentence should be read as 'obtains', for judging truth depends on more than correspondence between the proposition expressed and how the world is: if this were not the case, one could happily call imperatives true or false, but one cannot. An account such as Davidson's therefore needs, Dummett insists, a theory of force before it can be said to be a theory of linguistic meaning. Without this, it remains a theory of Fregean sense only.

The alternative is to explain the meaning of all the sentence types in terms of assertion. This is the route taken by Barker, but it involves the wholesale rejection of the Fregean semantic programme. For Barker, recall, linguistic meaning is analysed in terms of proto-acts, rather than divided into sense and force, and semantics becomes part of the study of intentional human behaviour, rather than of an abstract notion of meaning.

II. **Assertion and indicative mood.** If the view of the relationship between assertion and truth in I is right, then assertion must be conventionally associated with a linguistic form. This is not to say that all assertions must be

performed by the use of that marker, or that that the use of that marker always results in assertion. Rather, the point is that, as the notion of truth cannot be analysed independently of assertion, and since a basis for ascribing a grasp of truth to individuals is needed, this must taken to lie in their ability to use a form conventionally specified for performing assertions. Once a grasp of truth can be ascribed on this basis, it is possible to go on to ascribe an intention to make assertions using other forms, or to use assertoric forms for other ends. Thus, as Dummett insists, the link between mood and force is essential to answering the question of what force is, but not for identifying the force of a particular utterance.

III. **Assertion and inference.** The lesson from Green's and Smith's readings of Frege is that if inference is to be employed in the pursuit and systemisation of truth then forms representing truths need to be marked as such. This point will be significant in subsequent chapters when the practice of assertion is related to the cognitive process of developing an accurate representation of the world.

IV. **Functional characterisations of assertion.** There is a strong feeling among theorists that a functional characterisation of assertion is needed. Thus, for Stalnaker, assertions have the function of modifying the common ground, for Barker they open up areas for debate by advertising an intention to defend a representation, and for Williamson and García-Carpintero they have the function of communicating knowledge. A functional characterisation appears to be necessary in order to adequately distinguish assertion from other truth-aiming acts, and from the more general notion of assertoric character that might be applied to other representations, such as beliefs.

These four points will be central in the next chapter, when the question of how best to analyse assertion in the terms of a cognitive theory of utterance interpretation will be addressed.

72

CHAPTER 2: ASSERTION, BELIEF AND MENTAL REPRESENTATION

1 INTRODUCTION

The previous chapter ended by highlighting four key features of assertion: its importance to an understanding of truth and, therefore, to any truth-based theory of meaning; its close, though not unproblematic, relationship with the indicative mood; the importance of an assertoric mode for inferences aimed at discovering truths and thereby extending knowledge; and the functional role of assertion as a means of communicating information about the world.

The next two chapters will seek to develop a cognitive account of the processing of indicative clauses, such that both their assertoric and non-assertoric effects can be explained. The present chapter will be concerned primarily with establishing a framework in which the contribution to utterance interpretation made by the indicative mood can be examined. As such, it will present a view of mental representation which will serve as a basis for a subsequent characterisation of assertion. Chapter 3 will then be dedicated to establishing the conditions under which an utterance of a clause in the indicative mood has assertoric effects.

The framework that will be adopted in this and the remaining chapters is Sperber & Wilson's (1986/1995) Relevance Theory. The next section will therefore be dedicated to giving an outline of the pertinent features of this framework. As this theory relies strongly on the notion of intention-attribution in its account of human communication, and as intention attribution is often taken to involve the attribution of beliefs and desires, it is worth examining it in the light of Dummett's claims about the priority of assertion over belief. This is because Dummett's arguments to the effect that assertion is conceptually prior to belief might be taken to suggest that competence in assertion is a prerequisite for the development of the ability to attribute beliefs to others (though it needs to be stressed that a philosophical analysis such as Dummett's need not have empirical consequences in this way).

This chapter has the following structure: section 2 will give an outline of Relevance Theory; section 3 discusses the role of intention and belief attribution in Relevance Theory and considers to what extent Dummett's arguments do indeed pose a challenge for this theory; section 4 considers more closely different species of mental representation, seeking in particular to distinguish their representational from their semantic properties; given this view of mental representation, the role of language in communication is discussed in section 5, leading to an initial characterisation of assertion.

2 RELEVANCE THEORY

According to Sperber & Wilson, human linguistic communication belongs to a special class of information transfer. Humans clearly transfer a wide range of information in a wide variety of ways: skin colour and other physical features transfer information about ethnicity; complexion can transfer information about health, age and general well-being; clothes convey information about, among other things, an individual's status and values; utterances transfer information about thoughts and the way the world is. While many more cases of human information transfer could certainly be listed, Sperber & Wilson argue that there are good grounds to think that a sub-class of human communication can be identified by asking whether the behaviour that leads to the transfer of information is both intentional and reliant on the recognition of intention to succeed. This sub-class has been dubbed 'ostensive-inferential communication' by Sperber & Wilson, as it involves both a communicator performing an ostensive act – i.e. one that cannot be explained by an audience except in terms of the communicator having the intention to inform her audience of something – and an audience inferring the intended message as a result of the recognition of this behaviour as ostensive. Linguistic communication is seen as belonging to this class of information transfer.

Clearly, linguistic communication is not the only form of ostensive-inferential communication: gestures such as winking, nodding and waving are also clear cases,

while some acts, such as wearing particular clothes, might be judged ostensive on some occasions but not on others. What distinguishes linguistic communication from other forms of ostensive-inferential communication is that, through the use of language, the evidence concerning her intentions that a speaker can give is much richer. Human verbal communication is thus seen as a code-supported inferential process, relying on the recognition of behaviour intended to invite inferences about the internal state of the speaker.

The information an individual has available to him about the world can be thought of as his cognitive environment. This forms the basis of his representation of his physical and social environments, which is developed from sensory input (either actual or historical and recorded in memory), genetically endowed information and inference. Sperber & Wilson argue that in order to ostensively communicate with an individual, it is necessary to modify his cognitive environment in such a manner that the communicator's intention to communicate with him becomes a feature of that environment that is attended to by that individual.

In order to see how this might be achieved, it is necessary to consider in more detail the structure of the cognitive environment. A cognitive environment consists in both potential and realised representations that an individual is disposed to treat as true, though they need not in fact do so. Sperber & Wilson (1986/1995: 38-46) call these representations 'assumptions'. Assumptions are representations of the world that an individual is disposed to regard as adequately evidenced to justify adoption as true representations of the world.[1] This is not to say, though, that all the assumptions which constitute an individual's cognitive environment are physically realised in the mind/brain of that individual. Some assumptions will be physically instantiated, but

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[1] This only applies to what Sperber & Wilson term 'factual assumptions'. They also use the term 'assumptions' for mentally represented propositional forms that are embedded in factual assumptions. These might not be representations of the actual world. This issue will be discussed in detail in section 3.

many more will remain only potentially so, as they will be either perceptible or inferable. Assumptions which are either concretely or potentially available to an individual are termed 'manifest assumptions'. Any assumption an individual is capable of entertaining and judging true or likely to be true is manifest to him. Manifestness is a matter of degree: the more likely to be thus entertained and judged, given a particular physical environment and a particular set of cognitive abilities, the more manifest an assumption is.

Due to the fact that individuals differ both in terms of their histories and cognitive abilities, no two cognitive environments will ever be the same. However, where people's physical and/or social environments coincide to some degree, then they will share some common assumptions: there will be a shared cognitive environment. When, in a shared environment, it is manifest which people share that environment, the result is a 'mutual cognitive environment' (Sperber & Wilson 1995: 41).

In order to achieve information transfer, it is only necessary to modify an individual's cognitive environment to such a degree that this change is mentally represented: he need not be aware of any intention for this to happen. However, there are advantages to making manifest to an individual the intention to modify his cognitive environment. First, doing so invites him to direct his cognitive abilities to the task of inferring the assumptions that are intended to be made manifest to him, which makes the communicator's task easier. Second, making manifest the intention to make a certain assumption manifest to an individual necessarily adjusts not only his cognitive environment but also the mutual cognitive environment shared by communicator and addressee. Mutual cognitive environments are the basis of co-ordinated behaviour, and by extending the former, the possibilities for the latter are also extended.

Thus, ostensive-inferential communication involves two tiers of intentions: the intention to make manifest a set of assumptions and the intention to make this

intention mutually manifest. Sperber & Wilson term the first of these 'the informative intention' and the second 'the communicative intention'.

It was noted above that ostensive-inferential communication crucially involves an invitation by the communicator to the audience to infer her intended message. But, if it is to have any hope of succeeding in the sort of time available during verbal communication, inference of this type must involve the selection of a restricted set of premises from a very large set of possibilities. This raises the question of what guides the inferential process: how are contextual assumptions accessed and how does the interpreter know when to stop? Sperber & Wilson's answer to this question is to point out that this problem is not restricted to the interpretation of utterances. Cognitive systems are constantly faced with the problem of allocating resources to the processing of sensory inputs. The problem is one of optimisation: balancing the benefit of attending to information with the cost of processing it. It is therefore a fair assumption that cognitive systems have evolved to allocate resources so as to optimise the cost/benefit balance by directing resources towards those inputs which, for any given level of effort, will result in the greatest benefit. Thus, for many animals, input regarding predators or prey will be attended to over other inputs due to the associated likely benefits, while humans are cognitively disposed to divert attention to stimuli such as certain (loud) noises, sudden movements, and those which constitute signs of physical health, social status, and so on.

What is needed, then, is a term which captures this tendency to balance cognitive cost and benefits, and this is just what the notion of relevance to an individual, as defined by Sperber & Wilson, is designed to do. The relevance of an input can be seen in terms of this balance between cognitive costs and cognitive benefits: for any given level of cost, the greater the benefit, the greater the relevance; for any given level of benefit, the less effort involved in deriving it, the greater the relevance. Attention is then directed towards sources of information which promise most relevance. Now, to act ostensively is to claim attention; attention is paid to relevant stimuli; thus to act ostensively is to claim that one's stimulus is relevant. To claim

relevance is to claim that given a certain degree of effort (a cost), an appropriate degree of benefit will be achieved. The hearer is therefore justified in following a path of least effort until he achieves a degree of benefit that justifies the effort expended.[2] Of course, what constitutes sufficient effect to justify effort expended will depend on a number of factors, not least the hearer's assumptions about the abilities and preferences of the speaker. Nevertheless, this does offer a principled means of arriving at intended interpretations, one which follows from reasonably non-controversial assumptions about how cognitive resources are allocated.

The picture drawn so far is but a sketch of the relevance-theoretic account of linguistic communication. Assumptions have been left largely unanalysed and nothing has been said about the role language plays, nor about the abilities that underlie the attribution of communicative and informative intentions to communicators. This last issue is the focus of the next section, which considers the questions that are raised by applying empirically Dummett's claim that assertion is conceptually prior to belief. As will be seen, the issues raised concern, among other things, the role of the communicative and informative intentions in the relevance-theoretic account of communication.

3 INTENTION ATTRIBUTION, BELIEF ASCRIPTIONS AND METAREPRESENTATION

Dummett's claim, recall, is that assertion is conceptually prior to belief. The reason why this claim (applied empirically) might raise questions for the relevance-theoretic account of linguistic communication is that the communicative intention which, the theory has it, underlies ostensive behaviour and which, it is argued, must be attributed to the speaker by the hearer, is often presented as having belief as an element. An adequate conception of belief is itself dependent on a conception of truth, and truth, according to Dummett, cannot be analysed independently of

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[2] Cognitive benefit is measured in terms of cognitive effects. These are discussed in detail in section 4.1.

assertion, an act which, for him, cannot be made sense of without postulating a form conventionally associated with it.

Thus, the empirical prediction suggested by Dummett's claim is that, developmentally, the competent use of assertoric forms in the performance of assertion should precede a conception of belief. It needs to be stressed, though, that this is not a claim Dummett himself makes: he is concerned with philosophical conceptual priority, or order of explanation. However, if applied empirically, his point does make clear predictions: if an understanding of belief rests on an understanding of truth and falsity, and an understanding of truth and falsity can only be derived from competence in the practice of assertion, then competence in assertion should precede, and be possible without, the ability to attribute belief to an individual. Indeed, that Dummett's claim raises issues for intention-based accounts of meaning, such as Grice's 'meaning$_{nn}$', has been pointed out recently by García-Carpintero:

> Non-natural meaning constitutively involves communicative intentions; but the relevant communicative intentions are in part individuated relative to conventions operating in the semantic units of the expressions one has put together to produce one's utterance. Dummett [(1981: 311, 354)] argues for this in the case of assertion. His argument relies on the fact that, except for a very limited range of cases, we cannot make sense of the attribution of the inner state (belief, knowledge or judgement) that the act verbalizes independently of its regulating function in the performances of the relevant linguistic acts. This is certainly the case for complex higher-order mental states characteristic of Gricean accounts (2004: 161).

Applied empirically, the prediction suggested by Dummett's claim can be taken either ontogenetically or phylogenetically: it may be applied to the development of a concept of belief, and hence to the ability to attribute belief, either in the developing child, or in the evolution of the human species. On the ontogenetic reading, this prediction echoes an issue that has been tackled recently by Breheny (forthcoming), namely how to explain the fact that children who are unable to demonstrate an understanding of the concept of belief are nevertheless able to engage in what he

terms 'basic communication', and which he characterises in terms of the ability to produce meaningful assertions. On the phylogenetic reading, it relates to work by Sperber (2000), which argues that the relevance-theoretic account of linguistic communication strongly supports the view that metarepresentational abilities (including the capacity to represent mental states including belief) predate linguistic communication in human evolution.

Both of these issues will be discussed later in this section, as will the associated claim that utterance interpretation is handled by a pragmatics module. First, though, it is necessary to prepare the ground by detailing the role of, and the relationship between, metarepresentation, intention attribution and belief attribution in Relevance Theory.

3.1 The attribution of mental states in Relevance Theory

As was noted in section 2, Relevance Theory characterises linguistic communication as a type of ostensive-inferential communication. This type of communication relies on the recognition by the hearer that (a) the communicator is acting with the intention of informing him of something, and (b) she intends the hearer to recognise that she has the intention in (a). It also depends on the ability of the hearer to attribute an intended meaning or content to the speaker. As will be seen below, ascribing this intention, is generally characterised in Relevance Theory as entailing ascribing belief. Relevance Theory does therefore seem to be open to challenge from an empirical application of Dummett's claim. However, it will be argued below that it is possible to conceive of a relevance-theoretic view of inferential communication which does not necessarily involve belief attribution in cases of basic communication.

Sperber (1994b; see also Wilson 2000; 2003) suggests that humans have three interpretation strategies available when interpreting acts of linguistic communication: 'naïve optimism', 'cautious optimism' and 'sophisticated understanding'. As will be seen below, they vary in terms of their

80

metarepresentational sophistication (i.e. in the level or the order of mental state attribution that they require) and the role played by belief attribution.

The most basic strategy is naïve optimism. An individual following this strategy simply assumes that the first relevant interpretation of the speaker's utterance that occurs to him is the one that she intended. This strategy is successful in arriving at the speaker's meaning only if the speaker is both benevolent and competent: she must be competent to such a degree that she is able to choose a linguistic form such that the first interpretation the speaker arrives at will be her intended one, and benevolent so that she does not choose a form which is likely to deceive the speaker.

As was seen in section 2, the relevance-theoretic view is that utterances are ostensive stimuli which presuppose their own relevance, and thus warrant the speaker following a path of least effort until the goal of sufficient effect/benefit is reached in interpreting an utterance. This is based on the assumption that human cognition has evolved so as generally to minimise cost and maximise benefit, in other words, to maximise relevance. However, the presumption which utterances convey is not one of maximal relevance, but optimal relevance. It is optimal because the speaker will not generally be expected to go against her own preferences, and will never be able to go beyond her abilities, in crafting her utterance. This means that the interpretation that would be most relevant to the hearer may be beyond the speaker's abilities or incompatible with her desires. Consequently, a sophisticated hearer must take the speaker's preferences and competence into account when interpreting her utterance and so seek not the interpretation that will give him the greatest effects (for any given level of effort), but the interpretation that will give him the greatest effects *given the speaker's preferences and competence*. This is summed up in the presumption of optimal relevance:

Presumption of optimal relevance (revised 1995):
  (a) The ostensive stimulus is relevant enough for it to be worth the addressee's effort to process it.

(b) The ostensive stimulus is the most relevant one compatible with the communicator's abilities and preferences. (Sperber & Wilson 1986/1995: 270)

An individual employing a strategy of naïve optimism, however, does not consider the speaker's competences and preferences, rather he implicitly assumes that she is competent and benevolent. He thus seeks to *maximise* relevance, rather than to optimise it. This can be seen by considering how (1) would be interpreted by an individual following this strategy:

(1) It's late

In interpreting (1), a naïve optimist will simply take the most accessible referent for 'it' (or a non-referring interpretation if none is easily accessible) and the most accessible interpretation of 'late' (as meaning, say, that it is time for he and the speaker to leave) and, as long as he judges it to be relevant enough to have warranted paying attention to, assume this interpretation is the one intended by the speaker. Metarepresentation enters this story, as Sperber tells it, in two ways: first, in recognising the utterance as an ostensive stimulus and thereby taking it as a premise from which her message will be inferred; and, second, in attributing to her the intended message. Thus, if, as in Sperber's example, Mary utters (1) in order to inform Peter that it is time to go home, the initial premise will be (2) and the interpretation (3) (with square brackets indicating levels of representation):

(2) Mary says: 'It's late'
(3) Mary intends [me to believe [that it is time to go home]]

Belief attribution therefore comes in at the level of attribution of the intended interpretation. This is somewhat undesirable given that this strategy is just the sort that is postulated for children below the age of four, who generally fail to demonstrate possession of a conception of belief (Breheny forthcoming). Moreover,

the strategy has the advantage of not requiring the child to represent the speaker's competencies (which include what she can be assumed to believe). It is unfortunate, therefore, that belief enters the story when the interpretation is arrived at.

Origgi & Sperber are aware of this problem and address it by arguing that the reasoning abilities required to demonstrate a conception of belief by passing a false-belief task (in which the subject has to predict or explain the behaviour of another person in terms of that person's possession of a false belief) are not required for language comprehension:

> The attribution of a meaning to a speaker, and the prediction that a person with a false belief will act on this belief, though both involving mindreading, are two very different performances. The formal resources involved in the two cases are not the same. In the case of speaker's meaning, what is needed is the ability to represent an intention of someone else about a representation of one's own – a second-order metarepresentation of a quite specific form. [...] In the case of false beliefs, a first-order metarepresentation of a belief of someone else is sufficient, but what is needed is the ability to evaluate the truth-value of the metarepresented belief and to predict behaviour on the basis of false belief. We are not aware of any argument to the effect that the ability needed to pass the false-belief task is a precondition for the ability needed to attribute speaker's meaning. There is nothing inconsistent or paradoxical therefore in the idea of an individual capable of attributing speaker's meaning and incapable of attributing false beliefs (and conversely). (Origgi & Sperber 2000: 163)

There are two points that need to be made here. First, it will soon be shown that some of the interpretation strategies that Sperber (1994b) suggests do in fact require the sort of reasoning involved in predicting or explaining behaviour in terms of false belief. This, however, is not incompatible with what Origgi & Sperber say: incompatibility would only follow if it could be shown that all attributions of speaker meaning involved attributing false beliefs and explaining the speaker's behaviour in these terms. Second, it is necessary to unpack just what is meant by 'believe' in cases such as (3) in order to see whether the strategy is reliant on the

interpreter being in possession of a notion of truth, thus leaving it open to challenge from an empirical application of Dummett's claim.

Consider first what possible meanings 'believe' could have in theorising about an individual's ability to attribute mental states to others. If one has what is sometimes referred to a 'full-blown' concept of belief, then one knows at least the following: that beliefs are causes of behaviour in oneself and others; that beliefs can be true or false; and that false beliefs can guide behaviour in the same way that true beliefs can. This is just the sort of concept of belief that is required to pass a false-belief task, and, importantly, it requires a conception of truth. Therefore, on Dummett's claim as applied here, a strategy reliant on this notion of belief could not be attempted by those without prior competence in making and responding to assertions.

There is, though, a less sophisticated notion of belief that might be used in theorising about mind-reading abilities. On this view, what would be entailed by having a notion of 'basic belief' is simply that people can either have certain information available to them or not, and that they act according to the information they have. Notice that there is no mention here of truth and falsity. Indeed, the idea is that the individual who has this concept of belief has no conception of truth and falsity, merely of the presence of information or its absence. Crucially, an individual in possession of only this rudimentary concept of belief would not distinguish between states of the world perceived and representations of states of the world. The theory of mind underlying his mind-reading abilities would thus be non-representational. For him, states of affairs in the world would cause behaviour directly, due to their perception, rather than their representation.[3] As Millikan puts it: "[A speaker does

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[3] It might be objected here that young children must have a conception of truth and falsity because they can attribute desires to others, and the objects of desires are not realised states of affairs and so must be false. This, however, is to confuse, in the terms of the last chapter, a proposition's not obtaining from a representation's being false. The fact that children do not treat the object of a desire

84

not] need to employ a representational theory of mind to be sensitive, in many cases, to whether the speaker has the relevant information. Knowing that another has certain information can involve no more than knowing that the other person has been exposed to this information or anticipating that the other could exhibit this information through language" (forthcoming, p. 21 of the manuscript of the chapter cited).

In what follows, the term 'know' will be used to denote this non-representational ability to attribute mental states to others and 'believe' reserved only for the representational variety. That is, it will be assumed that children unable to demonstrate a full-blown theory of mind have a more simple ontology of mental states, one which does not rest on a notion of truth and falsity, and this will be denoted here by the term 'know'. Although this might seem a strange choice of terminology, as knowledge is often characterised as consisting of justified belief plus truth, some thought shows that it is just the term that is needed: knowledge is either present or absent, not true or false. An individual with no conception of truth or falsity could still therefore attribute knowledge to another (see Williamson 2002 for arguments against analysing knowledge in terms of belief).

Only where the representational meaning of belief is employed is the relevance-theoretic view of utterance interpretation open to a challenge from an empirical application of Dummett's claim concerning the priority of assertion over belief, since the more basic ontology of mental states suggested requires no conception of truth or falsity. Applying Dummett's claim empirically, recall, means that competence in assertion cannot be said to require the prior attainment of a full-

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as true does not mean that they treat it as false, the crucial point being that the function of a desire object is not to represent the world as being a particular way (it has a world-to-word direction of fit), hence it cannot be described in terms of truth or falsity. This point will discussed in some detail later in this chapter.

blown notion of belief, for this entails a concept of truth and falsity which itself is dependent on, given Dummett's claim, a notion of assertion.

In what follows, then, the aim will be to look closely at just what sort of mind-reading abilities are required by each of Sperber's strategies. If it can be shown that relevance-theoretic ostensive-inferential communication can precede the acquisition of a full-blown concept of belief, then Relevance Theory is not threatened by Dummett's claim.

'Know', in this non-representational sense of 'having information available', could replace 'believe' in (3) to give (4):

(4)   Mary intends [me to know [that it is time to go home]]

While this has the same number of embeddings as (3), it does not require a grasp of the notion of the representational nature of belief, and hence of truth and falsity, and could therefore be available to a child unable to demonstrate that she grasps the concept of belief.[4]

Alternatively, it might be denied that such a child has any notion of intended interpretation and simply treats the effects of the utterance as he would any of those resulting from the processing of any other relevant stimulus. Consider (5) spoken to a child in order to prevent him from eating a sweet he has picked up off the floor. This could have the desired effect without the child representing (7). Rather, he could simply follow a path of least effort and derive (6), which, combined with his assumption that dirty objects should not be eaten, would direct him not to eat the sweet (and perhaps allow him to derive further cognitive effects).

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[4] One might not want to call (4) a 'metarepresentation', though, as it does not characterise the child as having a grasp of the representational nature of the embedded content.

(5)   It's dirty

(6)   The sweet is dirty

(7)   She intends [me to believe/know [that this sweet is dirty]]

While this would certainly seem to indicate comprehension, the problem with this approach would be that it would suggest that the child does not characterise the speaker's behaviour as goal-directed.[5] This would in turn raise the question of why the child bothered to attend to the speaker's utterance. The non-representational attribution of intention in (4), by contrast, has the advantage of viewing the child as endowed with the ability to characterise the speaker's behaviour as directed at making information available to him, without suggesting that he has the ability to grasp the representational nature of the inner states that govern behaviour. That said, a goal-attribution such as (7) could, in the terms of Relevance Theory, be manifest to the child without him representing it: what is at issue, though, is his capacity to do so.

Before looking at the next of Sperber's strategies, it is worthwhile considering whether an initial metarepresented premise such as (2) needs to be entertained by users of this naïve strategy. Part of the reason for requiring an initial representation of the type exemplified by (2) is that it justifies following the interpretation procedure warranted by ostensive stimuli, i.e. the search for optimal relevance by following a path of least effort, taking into account the speaker's preferences and competences. However, it has already been shown that the naïve-optimism strategy involves not optimising but maximising relevance. This is the same strategy as is applied to the processing of any stimulus which is attended to, for the tendency to maximise relevance is a generalisation about human cognition as a whole, not

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[5] For evidence that 9- to 12-month old children can characterise behaviour as goal-directed, see Tomasello *et al* (forthcoming: section 2.2).

merely about utterance interpretation. What distinguishes ostensive stimuli is that they come with a presumption of relevance that is in itself justification for attending to them. Now, one way a theorist might conceive of this is in metarepresentational terms: in recognising a stimulus as ostensive, the system represents it in a certain fashion (under 'says that', for example) and this triggers the interpretation process. Alternatively, though, it might be conceived of in non-metarepresentational terms: the recognition of an ostensive stimulus could simply interrupt processing such that resources are directed at processing that stimulus above competing stimuli, without that stimulus being metarepresented. As will be seen later, Breheny's proposal is for how basic communication works takes something like this approach.

Returning to Sperber's strategies of utterance interpretation, a hearer following the second strategy of cautious optimism assumes that the speaker is benevolent, though not necessarily competent. He will therefore realise that the stimulus the speaker employs may *appear* to be the most relevant to the speaker but may in fact not be. For example, the speaker of (1) may merely mean that it is time to leave, while for the hearer the most relevant interpretation may be that a package he has been waiting for, but of which the speaker is unaware, will arrive late. Following a strategy of naive optimism would result in the hearer accepting the most relevant interpretation to him (i.e. that the package is late) as the one intended by the speaker. A cautious optimist, by contrast, would realise that such an interpretation was beyond the speaker's competence, and hence ignore, or pass over, this possibility in interpreting her utterance (Sperber 1994b: 191-194).

In order to see whether belief (as opposed to knowledge) attribution necessarily plays a role in this strategy, it is crucial to be clear about what constitutes a speaker's competences in this domain. If it does result that full-blown belief attribution plays a role, it will then be necessary to be clear about what this role is.

The belief-free basic ontology of mental states proposed above as a possible alternative to, or precursor of, full-blown belief attribution would certainly allow a

form of cautious optimism: a hearer would be justified in ignoring interpretations which relied on information unknown to the speaker. Thus, the interpretation of (1) as referring to a package could be avoided by a hearer equipped only with this basic repertoire. What the lack of a full-fledged concept of belief would do is prevent the hearer from identifying the speaker's intended meaning when this relies on him attributing a false belief to the speaker. For example, suppose Mary utters (1) intending to inform Peter that a train she wrongly assumes him to be waiting for is delayed. Unless Peter is able to attribute to her the false belief that he is waiting for the delayed train, he will be unable to identify her intended meaning. Cautious optimism can thus be divided into two sub-strategies according to whether it relies on the attribution of an absence of knowledge/information, or the attribution of a false belief.

This point is important because it illustrates the difference between a comprehension process that requires the attribution of mental *representations* to the speaker and one that merely relies on the attribution of information. Also, it illustrates how the process of attributing an intended meaning can be essentially the same as explaining behaviour in terms of false-belief. Mary might explain the fact that Peter is opening the fridge door by attributing to him the false belief that the fridge contains beer, when, unbeknownst to him, she has drunk the last one. Similarly, in the scenario described at the end of the last paragraph, Peter would explain Mary's utterance of 'It's late' by attributing to her the false belief that he is waiting for a delayed train. Were he not able to attribute this false belief, the intended interpretation would not occur to him, and he would be unable to identify the goal of her behaviour.

However, even if it were granted that belief attribution has a role to play in a cautiously optimistic interpretation strategy, this would not entail that a belief attribution must always serve as a *premise* in this process. The naïve-optimism strategy follows a path of least effort, taking linguistic senses, assigning referents and considering hypotheses according to accessibility (Sperber 1994b: 190). A cautious optimist can do the same, the only difference being that accessibilities will

be determined to some degree by information (or beliefs) the hearer assumes that the speaker has available to her.[6] Thus, certain candidates for pronoun resolution, for example, would be suppressed if the hearer assumes the speaker has no knowledge of those individuals. Assumptions about a speaker's information/epistemic state must be used as actual premises in the derivation of the speaker's meaning only if a false belief needs to be attributed. In such a case, it will also be necessary to metarepresent the speaker's utterance (as in (2)), for working out what the speaker intended in such a case will require inferences concerning what effects her utterance would have had if the speaker's false belief were true. The inference would be roughly along the lines of (8):

(8)

a. The speaker has said: 'It's late'	*Observed phenomenon*
b. Something is late	*Initial interpretation arrived at by decoding linguistic form*
c. A train is late	*An accessible premise warranted by the location of the utterance (a train station)*
d. If a train is late, then people intending to catch it are often late for appointments etc.	*A premise made accessible by the hypothesis that a train is late*
e. The speaker falsely believes that I am waiting for a train	*A premise made accessible by the location of the utterance the propositional form assigned to it*
f. If I were waiting for a train, then the speaker's utterance would be optimally relevant to me	*A premise made accessible by considerations of relevance, i.e. of the effects (e.g. that the hearer might be late for an appointment) the utterance would have for the effort expended if the speaker's false belief were true*
g. The speaker intends me to know that a train she falsely believes me to be waiting for is late	*Interpretaion warranted by considerations of relevance (i.e. of expected effect and effort), given the initial premises and the false-belief attribution.*

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[6] It should be pointed out that this is not how Sperber views cautious optimism. On his view, a hearer takes a cautiously optimistic approach when the interpretation arrived at by following a path of least effort results in an interpretation that, while it would be relevant to the hearer, is incompatible with his assumptions about the speaker's competences (Sperber 1994b: 192).

An interpretation process such as that exemplified by (8) is clearly a case of explaining behaviour in terms of false-belief. Indeed, it would be strange if the processes underlying the interpretation of an utterance motivated by a false belief were distinct from explanations of other behaviours motivated by false belief. In at least one type of cautious optimism, then, false-belief attribution plays a role.

The use of representations of a speaker's beliefs as premises is a *defining* feature only of the third of Sperber's strategies: sophisticated understanding. Employing this strategy, the speaker does not assume that the speaker is either necessarily competent or benevolent, but only that she intends to appear so. Given this assumption, hearers may still identify the speaker's intended meaning, even if the informative intention is not fulfilled. That is to say, a hearer may realise what a speaker intended him to believe, even though he may not go on to believe it as a result. Like cautious optimism when it involves false belief attribution, the process that allows such interpretations is clearly both metarepresentational and reliant on full-blown belief attribution: given what the speaker has done (i.e. said that 'P'), the hearer must work out what effects the speaker could have intended her utterance to have, and for this he must attribute to her certain beliefs about what effects her utterance could have had if he had accepted it. Such inferences cannot be the result of processing a stimulus simply by following a path of least effort without giving any consideration to the nature of the stimulus or to the speaker's intentions: both must be explicitly represented and must play a direct causal role (i.e. serve as premises) in the interpretation process.

Table 1: Summary of relationship between interpretation strategies and metarepresentational requirements

	Metarepresentation of utterance necessary as initial premise?	Belief attribution necessary?	Metarepresentation of intended meaning necessary?
Naïve optimism	No	No	No
Cautious optimism (not involving false belief attribution)	No	Not necessarily full-blown belief: knowledge attribution may be sufficient	No
Cautious optimism (involving false belief attribution)	Yes	Yes	Yes
Sophisticated understanding	Yes	Yes:	Yes

Table 1 summarises the preceding discussion. It shows that as long as the recognition of ostension is characterised in non-representational terms, then the metarepresentation of the utterance is not required as an initial premise in the interpretation process for either naïve optimism, or cautious optimism that is not reliant on the attribution of false belief. Similarly, neither requires that the speaker's intended meaning be metarepresented as such: a child, for example, could respond appropriately to an utterance by following either of these strategies, without explicitly representing the effect of the utterance on him as the speaker's intended meaning. (However, as was noted above, the disadvantage of this position is that it does not characterise the child as recognising the speaker's behaviour as goal-directed.) While belief attribution is not necessary for naïve optimism, some form of either belief or knowledge attribution is required for both forms of cautious optimism. The important point is that this does not have to serve as a premise in the interpretation process unless this process rests on a false belief. Sophisticated understanding does require a full-fledged concept of belief, as well as the explicit representation of the speaker's utterance as an initial premise, and of the speaker's intended meaning as an output. An important upshot of this is that a form of ostensive-inferential communication which does not rely on metarepresentational

abilities can be conceived of. As noted above, an account along these lines will be considered in the next section.

Given these three strategies, an obvious question is who uses which, and when. Sperber suggests that these follow developmental stages, such that young children start out as naïve optimists and gradually, as conceptual and metarepresentational abilities develop, grow to be sophisticated understanders. Importantly, though, he also suggests that given the appropriate circumstances, such as when "everyday communication takes place between people who are benevolent to one another and who know one another well enough", then "cautious, and even naïve optimism can serve as 'default' interpretation strategies, and the higher-level meta-representational strategies may play no role at all" (1994b: 197-198).[7] However, it is important to emphasise that what distinguishes adults from young children is that the higher-order metarepresentations associated with acts of ostensive communication will be manifest (i.e. available for mental representation, though not necessarily mentally represented) even if the hearer is employing a strategy which does not require their explicit representation and deployment in inference. As such, if an optimistic strategy fails, perhaps by yielding an interpretation which is incompatible with the hearer's beliefs, he has recourse to more sophisticated strategies.

One interesting result of the above discussion is that it converges to some extent with the view of utterance interpretation propounded by Millikan (1984; forthcoming) and Recanati (2002; 2004). On this view, normal or basic utterance comprehension is as direct as perception (which is itself not all that direct, see Millikan 2004: chapter 9) and does not rely on reasoning about the speaker's mental states. What has been said above suggests that contextual assumptions about a speaker's knowledge or beliefs can influence utterance interpretation by suppressing

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[7] It should be emphasised that Sperber would be unlikely to agree with the characterisation of the metarepresentational requirements of his strategies given in Table 1.

some and activating other candidates for, for example, reference assignment, disambiguation etc. without necessarily acting as premises in inferring speaker meaning. The crucial point to emerge from this discussion is that there is nothing in the claim that speakers make manifest their communicative intention that requires that a representation of this intention must have a causal role (i.e. as a premise in the derivation of speaker meaning) in the interpretation of the utterance. Rather, all the claim entails is that this information should be available to the hearer should he need to employ it to derive the expected level of effect.

3.2 Basic communication

As already noted, there are some similarities between the naïve-optimism strategy of utterance interpretation, as characterised above, and Breheny's idea of basic communication in children under the age of four. Such children typically fail to demonstrate a full-blown conception of belief but are nevertheless in many ways competent linguistic communicators, able to assign pronominal reference across sentence boundaries, for example; and anyone who has had first-hand experience of children of this age would certainly agree that they can use language in a way that, although lacking the sophistication of adult language-use, is clearly meaningful and informative.[8] Breheny terms this 'basic communication', as typified by "the assertive utterance of a declarative sentence for informative purposes" (forthcoming).

As should be clear by now, the fact that children who lack the ability to attribute false belief to others are capable of this type of communication poses a problem for theories of communication that regard the ability to conceptualise behaviour in terms of full-blown belief and desire as fundamental to the process of linguistic communication. Breheny's solution is to suggest a minimalist relevance-theoretic

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[8] Young children's inability to attribute false beliefs is evidenced by their persistent failure to pass test requiring them to attribute false beliefs to a character in a scenario in order to predict that character's behaviour, see, e.g. Baron-Cohen (1995).

account of basic communication which does not rely on participants being able to attribute either a belief-based communicative or informative intention in the recognition and interpretation of ostension. Rather, what is needed is the ability to recognise and respond to attention-directing behaviour; this differs from recognising full-blown ostensive behaviour as characterised by Sperber and Wilson in that an appropriate response merely entails attending to the situation indicated. There is no need to attribute a sophisticated informative intention which has belief as a constituent.

In order to show how attention-directing behaviour can be recognised and appropriately responded to without the attribution of a complex communicative intention, Breheny employs the idea of a shared situation. He argues that having the ability to conceptualise a shared situation does not necessitate attributing beliefs to others: a child much younger than four clearly has a concept of feeding, which is a joint activity in a shared situation, but there is no need to argue that the child the ability to attribute beliefs in order to take place in a feeding activity.[9] Within a shared situation there can be joint attention, which also does not rely on a concept of belief for it to be conceptualised, as long as 'attending to' is understood in suitably goal-directed terms. Directing someone's attention' can then be conceived of as simply behaviour which has the goal of focussing one's attention in a certain direction or towards a certain object or state or affairs. Children younger than four clearly engage in attention-directing behaviour, such as pointing. Indeed, studies have shown that informative pointing is practised by children as young as 12 months old (Liszkowski *et al.* in press).

Even given a concept of shared situations in which joint activities take place, and the ability to engage in and respond to attention-directing behaviour (as a result of an

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[9] Baron-Cohen (1995) postulates an ability to monitor shared attention (SAM) as a precursor of belief attribution abilities.

ability to conceive of behaviour in goal-oriented terms), it still needs to be explained how addressees of this form of communication could come to attend to the same features of the environment as those directing their attention. A person pointing in a certain direction, for example, could be attending to any one of many possible features of the environment: how does the child come to attend to the situation indicated without taking into consideration the intentions of the person pointing? Breheny here makes use of Relevance Theory: if the human cognitive system has evolved towards maximising relevance, then directing perceptual organs at a certain area of the environment will automatically result in attention focusing on whatever inputs are most relevant.

A little more can be said about this than Breheny does. A child with the limited conceptual abilities that Breheny posits may come into contact with at least two types of attention-directing person: those with the ability to attribute belief states and those, like the child herself (it is assumed), without such abilities. The first scenario will be asymmetric, and the attention-director may have assumptions about what the child will find relevant and direct his attention accordingly. In such cases, although the child has no ability to attribute mental states, the communicator does, and this will play a role in the success of the attention-directing endeavour. In the second (symmetric) scenario, the success of the attention-directing will depend on whether what is relevant to the pointer is relevant to the child: if it is, then joint attention will result; if it is not, then they will attend to different situations. This account therefore has some clear empirical predictions: children without the ability to attribute ignorance of information should only be able to engage in successful communication with each other in cases where what is relevant to the communicator is also relevant to the addressee. In asymmetric cases, however, communication will succeed as long as the party with the ability to attribute the possession or ignorance of information can successfully infer what would be relevant to the child (given the child's

information-state) so that he can either craft his utterance, or interpret the child's utterance, accordingly.[10]

Breheny, then, shows how basic communication might be explained given an account of attention-directing coupled with the notion of relevance. Crucially, this does not involve belief attribution. Applied to linguistic communication, Breheny's basic communication functions very much along the lines of a modified version of naïve optimism described in section 3.1, on which neither the initial premise nor the interpretation are metarepresented. That is to say, the utterance of assertoric sentences is recognised as an attention-directing act and thus directs the speaker's cognitive effort towards representing the situation it describes, with implicit information such as pronominal reference simply being derived as part of the relevance-driven process of identifying that situation.[11]

Breheny's minimalist relevance-theoretic account of linguistic communication makes the general prediction that interpreting any utterance which clearly involves the attribution of an informative intention will be beyond children under four years old. Indeed, he points to evidence that what children of this age are unable to do includes the interpretation of scalar implicatures, such as interpreting 'some' as meaning 'not all'. Such phenomena played a role in motivating the revision of the

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[10] For experimental evidence that young children are sensitive at least to what others have been attending to, and that this guides their interpretation of linguistic communication, see Tomasello & Haberl (2003).

[11] Breheny's type of inferential communication thus relies on maximal, not optimal relevance: the child's attention is directed at the utterance's linguistic form and he automatically treats it as the most likely source of relevance available at that time and seeks to maximise its cognitive effects. Breheny appears not to appreciate this point when he says that his basic communication strategy involves following "a path of least effort in fixing on a source of *optimal* relevance" (Breheny forthcoming: 41 ms, emphasis added). As was shown in section 3.1, individuals unable to attribute at least knowledge cannot have expectations of optimal relevance. This assumes, of course, that he is using 'optimal' in the technical, relevance-theoretic sense.

communicative principle of relevance in Sperber & Wilson to include reference to the speakers abilities and preferences. The idea is that when there are two compatible forms that are alike in terms of processing effort, a speaker choosing the informationally weaker of the two thereby implicates that it would be incompatible with her abilities or preferences to use the stronger one. This explains why 'some' in B's response in (9) may be taken to imply that he does not know whether all of his neighbours have pets: he has used the strongest form compatible with his abilities (here his knowledge), thereby implying that he is unable to use the stronger 'all' and prompting A to interpret 'some' as implicating 'not all' (1986/1995: 276-278).

(9)   A: Do all, or at least some, of your neighbours have pets?
       B: Some of them do

Thus, what Breheny's account of basic communication and the discussion of the optimistic strategies in section 3.1 show is that it is possible to give a relevance-theoretic account of linguistic communication which is not reliant on a conception of belief preceding competence in assertion. Consequently, the theory is not challenged by Dummett's claim that assertion is conceptually prior to belief, though this claim has led to a useful re-evaluation of the necessity of metarepresentational abilities in basic ostensive-inferential communication.

3.3   A pragmatics module?

As Breheny notes, the minimalist relevance-theoretic account argues against the need for a specific module devoted to utterance interpretation, which would have as its domain utterances and other ostensive stimuli. The arguments for such a module have been presented in a number of places (Sperber 2000; Sperber & Wilson 2002), and are summarised by Wilson (2003). They can be termed 'the underdeterminacy argument', 'the overtness argument', and 'the effect argument'.

The underdeterminacy argument rests on the observation that, where non-ostensive intentional behaviour is concerned, the effects that a speaker can hope to achieve in

a certain situation are quite limited, and that this greatly facilitates the task of inferring the speaker's intention. Someone jumping up and down under an apple tree, the argument goes, can rationally only expect to have a limited number of effects, making it easy to form reliable hypotheses about his intentions (i.e. that he intends to grasp an apple or shake one from the tree). Sentence meaning, on the other hand, greatly underdetermines the speaker's intended meaning, making the inferring of the speaker's intention a far more challenging task, one which requires a dedicated procedure.

This argument fails to acknowledge, however, that although linguistic meaning is indeed under-determinate as regards speaker meaning, language does allow much more fine-grained evidence to be presented than do other forms of behaviour. Moreover, as the discussion in the previous sections has shown, even given its underdeterminacy, a speaker's meaning can be identified by following the same procedure as is used when interpreting other non-ostensive stimuli. Thus, the underdeterminacy of linguistic meaning is not a strong argument for a pragmatics sub-module.

The overtness argument points out that Grice's conception of 'meaning$_{nn}$' (1989: 213-223), which distinguishes linguistically communicated meaning from natural forms of meaning, requires that the speaker must not only have an informative intention but intend that this intention be recognised by the audience. Interpreting such behaviour thus requires the attribution of a multi-level intention of the form 'the speaker intends me to know that she intends me to believe that P'. Given that two-year olds, on the one hand, engage in basic communication but, on the other, fail to demonstrate any ability to form such higher-order representations in false-belief tasks, a possible solution to this problem is to posit a comprehension module which is available to such children and is able to process such higher-order representations, but whose representations are unavailable to other modules of the mind, such as the general mind-reading module. Consequently, although able to represent the content of beliefs attributed to others as representations, the child is

unable to use these representations in inferences aimed at explaining or predicting behaviour, the argument would go.

As Wilson acknowledges (2003: 313, fn. 8), one response to this argument is to ask whether the sort of communication that children are engaging in is indeed full-blown ostensive communication. Clearly, this is the route taken by Breheny, who would probably want to say that such children are not responding to verbal behaviour (or characterising it) as ostensive behaviour in the relevance-theoretic sense, but to attention-directing behaviour. The reason that they may seem to be engaged in ostensive communication is that adults assume that children are characterising adult ostensive behaviour as ostensive, when in fact they treat it as merely attention-directing. At the same time, adults may also mistakenly characterise a child's attention-directing behaviour as being driven by a full-blown communicative intention (i.e. one reliant on the notion of belief). Indeed, one question raised by the claim that two-year olds have the ability to attribute a communicative intention is what use this would be to them if they were also unable to attribute belief more generally. The crucial effect of the recognition of the communicative intention is to make it mutually manifest that the speaker has a certain informative intention and thereby encourage the hearer to infer what the content of this might be on the basis of assumptions about what the speaker might believe to be relevant to the hearer. Without the ability to represent such beliefs, though, it must be asked what use the attribution of a higher-order intention might be. In a shared cognitive environment, the same stimulus will be relevant in the same way to all those who share it. This is just the type of communication predicted above to be successful in symmetrical communication between non-belief-attributors. Mutuality is needed when a stimulus is employed that requires that the audience adjust their representation of the shared environment in a manner indicated by the speaker. By making her informative intention overt, the speaker invites the addressee to attune his cognitive environment to hers on the basis of her stimulus, what is manifest to him about her beliefs and

desires, what is manifest to them about her assumptions about their assumptions and so on.[12] If children under four are unable to mentally represent assumptions as attributed to their speaker, it is not clear what would be the use of attributing a communicative intention.[13]

The effect argument goes as follows: general intention attribution works by first identifying an effect that the agent could have both predicted and desired and then assuming that this was the intended effect; this procedure is not capable of accounting for utterance interpretation because the desired effect just is the recognition of the speaker's intention. However, basic communication of the type posited by Breheny is effect-driven: the communicator produces a stimulus which the addressee processes by seeking to maximise relevance. If the effect achieved is the one intended, then communication succeeds; if it is not, then it fails. The effect is not calculated on the basis of a recognition of the speaker's intentions; rather, the effect achieved is the only one considered, any interpretations more compatible with the speaker's abilities and preferences being beyond the capacity of the hearer to arrive at. Again, this is essentially Sperber's strategy of naïve optimism, on which the hearer accepts the first interpretation relevant to him.

It seems, then, that the case for a pragmatics module is not clear-cut and requires further consideration. It is worthwhile, though, considering why one might feel the need to postulate one (cf. Carston 2002a: 132). When Relevance Theory was first developed, part of the aim was to respond to Fodor's (1983) claim that there could

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[12] This goes on *ad infinitum*, but becoming more weakly manifest at each stage such that after a few embeddings these manifest assumptions are not mentally represented.

[13] Basically the same point is made by Breheny (forthcoming: ms 39), who argues that the main function of the reflexive element to Grice's account of meaning$_{nn}$ and Sperber & Wilson's communicative intention is to cope with cases where 'shared knowledge' or a shared cognitive environment is not enough to ensure successful communication, but rather a dimension of mutuality is needed such that what is shared is also assumed to be shared by the sharers.

be no theory of central cognitive systems because of what has become known as the frame problem (the problem of limiting the premises that can be employed in a process of non-demonstrative inference such that the problems it sets out to solve become tractable). By arguing that human cognition tends towards maximising relevance, Sperber & Wilson put forward a robust challenge to Fodor's pessimism. Since Fodor (1983), however, the original distinction he drew between central and modular systems has been questioned by many, with a number of theorists now arguing that the mind is modular through and through (Carruthers 2005; Pinker 1998; Sperber 1994a). In such a revised picture, the question of which module is responsible for utterance interpretation naturally arises. Given that linguistically communicated meaning, on the Gricean conception, is intentional, it is natural to assume that the putative theory-of-mind module is a likely candidate. However, as this appears to come on-line (in the crucial respects) after communicative abilities develop, the idea that there is a sub-module responsible for utterance interpretation becomes attractive. Indeed, the arguments presented for a pragmatics module are essentially arguments against the view that utterance interpretation falls within the domain of a theory-of-mind module, rather than being motivated by any explanatory need that the non-modular central-systems story was unable to fulfil (cf. Bloom 2002, who also argues against a pragmatics module). The picture developed here, by contrast, is neutral concerning the modularity of central systems. It simply follows the original relevance-theoretic line that central systems, be they modular or not, seek to maximise relevance. Mind-reading abilities have a role to play, but this is not to say that utterance interpretation is part of the domain of a mind-reading module.

Furthermore, it is not clear what sort of evolutionary account one could give for a pragmatics module. If this has ostensive acts as its domain, then these must have existed prior to the evolution of the pragmatics module, otherwise there would be nothing for it to evolve to track. However, if a pragmatics module is necessary for the interpretation of ostensive acts, then it is not clear why such acts would exist prior to the development of a the module: they are only useful if they can be recognised as such, and if they can be recognised as such without domain-specific

cognitive abilities, then why should these develop? Sperber's answer to this question is that early, simple ostensive-inferential communication was interpreted by employing general mind-reading abilities, but that once this was underway "a more specialised adaptation aimed at comprehension evolved" (2000: 130). However, this position concedes that a pragmatics module is not a prerequisite for successful ostensive-inferential communication, but merely facilitates it.

3.4 Belief attribution in the evolution of linguistic communication

The evolutionary argument raised at the end of the last subsection provides a convenient link to a discussion of the phylogenetic issues that would be raised if Dummett's claim concerning the conceptual primacy of assertion over belief were applied empirically. In order to consider the extent to which this is indeed a challenge for accounts of the evolution of linguistic communication, such as Sperber's (2000), which propose that mind-reading abilities predate linguistic communication, it is necessary to return to the issues both of the relationship between inferential communication and metarepresentation, and of that between metarepresentation and belief.

In presenting a case for the evolution of inferential communication as prior to (and as a prerequisite for) the evolution of language and linguistic communication, Sperber suggests that if ancestral linguistic communication was anything like modern linguistic communication, then the ancestors of modern humans must have had metarepresentational abilities. This is because, as has been shown, what is linguistically encoded by an utterance greatly underdetermines what a speaker means, and, for Sperber, inferring what a speaker means on the basis of her linguistically encoded evidence requires inferring her informative intention, which in turn, for Sperber, involves metarepresenting the content of her beliefs and desires.[14]

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[14] That Sperber's notion of belief here is representational can be seen from the fact that, in the sort of ancestral scenarios he postulates, it is possible for a pre-linguistic early human to attribute to another the intention to deceive him. In other words, the addressee must be able to represent the state of

103

The underdeterminacy argument is also employed to argue against a code-model account of linguistic communication, on which hearers do not infer the intentions of their speakers but simply decode the message. However, Breheny's arguments – and indeed the revised version of Sperber's own naïve optimism strategy outlined above – suggest that a code can be employed in inferential communication without metarepresentational (in particular full-blown belief-attributing) abilities, especially if the information is relevant to the addressee in the same way as it is relevant to the communicator. In ancestral scenarios in which early or proto-humans are engaged in hunting, avoiding predation, and such, this is likely to have (often, at least) been the case. Furthermore, inferential linguistic communication of a basic kind does not require that the addressee be able to represent the content of the message as a message: he may simply treat it as he would any perceptible proximal stimulus (as in visual and auditory perception). That is to say, the message may be completely transparent to the receiver: he may not process it as a representation (i.e. opaquely) but purely as information, even though he has had to infer some of the 'intended' meaning (see Sperber 2000: 123 on the question of whether coded communication is transparent).

The notion of transparency also touches on the second point to be considered, that of the link between metarepresentation and belief. The ability to represent another's beliefs and make use of their representational nature in predicting the behaviour of an individual requires that one be able to 'decouple' (Leslie 1987) a representation R such that it does not necessarily retain the implications it would have in a context of the individual's beliefs about the world. Thus, while one person might accept that the belief that Peter is in France follows from the belief that Peter is in Paris, they might attribute to another person the belief that Peter is in Paris without also attributing to that person the belief that Peter is in France, on the grounds that they

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affairs the communicator intends him to represent as reality and assign this representation a negative truth-value. See, in particular, Sperber (2000: 124-125).

do not feel justified in attributing to that person the belief that Paris is in France. In effect, this means that an individual cannot allow all the entries in his personal database of beliefs to interact with those beliefs he attributes to another person. Rather, he must only allow those beliefs of his that he can safely assume that the other person also holds to interact with those he attributes to her on the basis of her behaviour, as well as perhaps attributing to her beliefs that the attributer himself does not hold. It is therefore necessary to establish a sub-database of beliefs for that other person, entry to and exit from which must be carefully monitored.[15] The ability to do this essentially involves grasping that 'Peter believes that P' does not entail P, and nor does P entail 'Peter believes that P'.

As was shown above, though, not all attribution of mental states is so cognitively challenging. The attribution of knowledge may entail simply tracking what information another individual has access to. Given that an individual knows that P, then that individual knows all that follows from P, as long as this does not rest on a premise unknown to that individual. Knowledge may thus be attributed simply by tagging what is known to the attributer with a marker signifying that it is known to the attributee (or, perhaps more economically, by tagging that which is not known to the attributee). Crucially, decoupling is not necessary. All that is necessary is keeping track of what information is available, or not, to that individual. There is no need to grasp of the representational nature of that information.

Desires are also simpler to represent than beliefs, but for different reasons. Representations of desirable states of affairs only have implications when they occur as the objects of complex representations, not in their own right. Thus, while all representations embedded under 'A believes that' can serve as premises in the deduction of further beliefs for that person, representations embedded under 'A

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[15] See Cosmides & Tooby (2000) for a discussion of the various roles played by the ability to metarepresent decoupled representational forms.

wants that' do not, in themselves, imply anything. Put another way, the implications propositional forms have when unembedded are mirrored when embedded under 'believe' but not under 'want'. This is illustrated by (10), (11) and (12): while (10)b follows from (10)a, and (11)b from (11)a, (12)b does not follow from (12)a (Heim 1992; Stalnaker 1984):

(10) a.   Peter's mother will get better

     b.   Peter's mother is ill

(11) a.   Peter believes his mother will get better

     b.   Peter believes his mother is ill

(12) a.   Peter wants his mother to get better

     b.   Peter wants his mother to be ill

Thus, on the one hand, inferential linguistic communication does not necessarily require metarepresentational abilities, and, on the other hand, inferring intentions does not necessarily involve attributing belief: the cognitively simpler attribution of knowledge may also lead to accurate predictions of intentions. The way is therefore open to tell a plausible language-first, relevance-theoretic story about the evolution of the sophisticated linguistic communication humans have today. It begins with inferentially-supplemented coded communication, completely transparent to the hearer and made possible by a basic linguistic code (compositional like human language but perhaps not yet recursive) and a relevance-seeking cognitive system that homes in on the relevant interpretation. This is the one intended by the communicator because what is relevant to her is relevant to her audience by virtue of the fact that they are in the same physical environment and have similar cognitive needs. However, no intentions are attributed by the interpreter and the communicator does not have a representation of the audience's mental state but acts benevolently in making information accessible. Such behaviour has been selected for because it resulted in the reproductive success of their ancestors.

At a later stage of evolution, members of the species have acquired the ability to track knowledge in each other and thus act informatively only when their audience is ignorant. This requires no metarepresentational skill other than the ability to infer the possession of knowledge from perception of the other's access to an information source. Attention-directing behaviour directs perceptual organs to sources of relevant information. Coupled with the cognitively simpler ability of attributing desires, then one has all the elements of a basic knowledge-desire action-predictor which enables the organism to predict the behaviour of another based on what information it has access to and what it wants.

The breakthrough that leads to the sophisticated use of language enjoyed by modern humans would be a mutation that allowed an individual to recognise an utterance as a representation and therefore to metarepresent its content. This would enable that individual to compare the representation with what it represents. He will find then that the representation is not always reliable and that individuals can be mistaken (so far there are no liars, for only the mutant has this potential). This is essentially the recognition that an expression with propositional form P does not entail that P is the case, which, again, is the basis of a grasp of the notion of belief (along with the fact that P's truth does not entail awareness of P, which is evolutionarily prior on the present story). Suddenly, consideration of the communicator's competence (specifically, her representation of the world) becomes important in her interpreting acts of basic linguistic communication, and there is a great deal to be gained from attributing to her beliefs (true and false) as opposed to knowledge. Such an advantageous adaptation is likely to spread rapidly and the potential for deception arises. The communicator's preferences (including her inclination towards benevolence or malevolence) thus become an important consideration. A metarepresentational arms race takes off, the more sophisticated having an evolutionary advantage over the less well-endowed. Before long, linguistic communication looks very different to the basic communication of the species' ancestors, and merely letting another know of your intention to communicate can be enough to get your message across.

The main advantage such a tale has over the metarepresentation-first story is that it allows there to be perceptible, public representations (i.e. basic assertions) in the environment, thus providing a basis for the subsequent natural selection of the ability to metarepresent the content of representations. Sperber himself concedes the attraction of such a scenario (2000: 121-122), but argues that it is implausible on the grounds that linguistic communication relies on inferring a speaker's intention, which necessarily involves metarepresentation. However, Breheny's account of basic communication suggests that the inference required for linguistic communication can be co-ordinated without metarepresentational abilities, thus weakening the case for the metarepresentation-first scenario. Strengthening the case for the language-first scenario is the presence of public representations as the objects of the newly-evolved metarepresentational capability. This seems far more plausible than a mutation that results in an individual suddenly postulating the existence of private representations and metarepresenting the content of these.

3.5   Summary of section 3

This section has shown that the challenge that could posed to Relevance Theory by applying empirically Dummett's claim concerning the conceptual primacy of assertion over belief is not insurmountable, despite the central role played by complex intention-attribution in the theory. Relevance-driven interpretation processes with no recourse to metarepresentational abilities are both conceivable and plausible, thus allowing assertion to predate belief attribution in the development of both the individual and the species.

One important point that this discussion has highlighted is that the code model of communication is not to be distinguished from inferential communication by the need for metarepresentational abilities. An ostension-/inference-based account of basic communication which has no recourse to metarepresentational abilities is possible.

4   MEANING AND MENTAL REPRESENTATION

4.1   Mental representation and relevance

The last section considered how one of the issues highlighted at the end of chapter 1 (the relationship between assertion, truth and belief) made interesting predictions about the development of communicative abilities. This section considers the inferential processes involved in utterance interpretation and focuses on the medium in which, according to Relevance Theory, these take place. This relates to the third of the issues identified at the end of chapter 1, namely the relationship between assertion and inference. The material covered here will, it is hoped, be of interest in its own right, but will certainly be important in chapter 3 when an account of the relationship between assertion and the indicative mood will be developed.

Relevance Theory assumes a representational/computational view of the mind, as outlined in Fodor (1981; 1998). This approach accounts for the content of thoughts by viewing them as structured symbolic objects, instantiated in the mind, which co-vary with features of the environment. Thus, the thought that 'the cat is on the mat' is assumed to have as a constituent a symbolic form which is tokened by the presence of a cat in the individual's perceptible environment. Thoughts are true, on this view, if the entities, properties and relations they represent are as they are represented.

As well as having semantic properties, these symbolic representations are thought to be structured in such a manner that they have a syntax comparable with that of natural language, and hence this representational medium is often referred to as 'the language of thought'. It is this formal property of mental representations that gives them their productivity and systematicity: the fact that they have a syntax means they can be used in inferential computations. Thus, one can derive the thought that 'the cat is not at the vet's' from the observation that it is on the mat.

If the representational nature of assumptions explains how they can be true or false, their formal properties and the computations these permit explain how they can be assessed as such by the individual. On being presented with a new assumption – either through perceptual channels or through communication – an individual will seek to integrate it with accessible prior assumptions. The inferences which constitute this attempt at integration will contain the new assumption as a premise and will ideally go through without uncovering a contradiction. Should a contradiction be found, though, the system will be faced with two options: reject the new assumption or reject the prior assumptions with which it is incompatible. Which it chooses will depend on the relative confidence it has in each set of assumptions. If the new assumption is from perception, for example, and the prior assumptions from communication, it will most likely reject the prior set on the grounds that its source was unreliable.

Adding a new assumption to a set of assumptions will either have an effect on that set or it will not, and whatever effect it does have can be compared with the effect of other assumptions. As noted in section 2, Sperber & Wilson term an assumption that has an effect on a prior set of thoughts 'relevant', and assess the degree of relevance of new assumptions in terms of the scale of their effect (as against the amount of effort involved in deriving them). Effects which improve the individual's representation of the world they term 'positive cognitive effects'. What the human cognitive system aims at, they argue, is maximising positive cognitive effect while minimising effort.

The notion of a cognitive effect is derived from the formal notion of a contextual effect. If a context is taken to be a set of propositions, the addition of a further proposition to that context has an effect on that context if it leads to either the

derivation of non-trivial implications[16] or the cancellation of one or more of the contextual propositions. If the facility to grade propositions according to strength or certainty is added to this formal context, then a third type of effect is possible: the strengthening or weakening of contextual propositions.

This conception of a context can be applied to the propositional forms that serve as an individual's representation of the world: his assumptions. An effect on a such a system is not merely a contextual effect but also a cognitive effect. Changes to the cognitive system can be either positive or negative according to whether or not they improve the individual's representation of the world. Those which do result in such an improvement are positive cognitive effects, and this notion can be used as the basis of a further notion of relevance to an individual. A proposition is relevant *in a context* if it has effects in that context. An assumption is relevant *to an individual* if it results in positive cognitive effects (Sperber & Wilson 1986/1995: 263-266).

The notion of a positive cognitive effect (and hence of relevance to an individual) clearly relies on the notion of truth, for an individual's representation of the world will only be improved by the addition of a true assumption. However, the mere addition of true assumptions to a context formed of factual assumptions will only have a negligible effect on the quality of the individual's overall representation of the world: for a significant improvement in that representation, that true assumption must also have sufficient cognitive effects in the context to which it is added to justify the processing it. In other words, it must be relevant in that context, and hence to that individual.

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[16] "A set of assumptions **P** *logically and non-trivially implies* an assumption Q if and only if , when **P** is the set of initial theses in a derivation involving only elimination rules, Q belongs to the set of final theses" (Sperber & Wilson 1995: 97)

4.2   Propositional forms, assumptions and truth

It was noted in Chapter 1 that a number of authors have pointed out that 'true' as applied to propositions does not equate to 'true' as applied to assertions. Above, however, the propositional forms termed 'assumptions' have been freely spoken of in terms of truth and falsity. It is now necessary to consider, therefore, whether it is acceptable to use 'true' in an unqualified sense in a discussion of assumptions. In order to do this, it is first necessary to ask what features assertions have besides expressing propositions such that they can be judged true or false. This will make it possible to decide by analogy whether it is appropriate to describe assumptions in these terms.

In addition to expressing propositions, a crucial feature which makes assertions truth-apt is their direction of fit: the term 'true' can only be applied when the proposition expressed by the form being judged obtains independently of that form. When it obtains as a result of that form, such as when a proposition obtains because an utterance of an imperative expressing it has been complied with, it is not correct to describe the form expressing that proposition as true. Another important feature, and this comes from Barker (2004), is that 'true' is a term applied to representations. Propositions *per se* are not representations, though forms expressing them may well be. Assertions, given that they are generally thought of as having the functional characteristic of providing information about the world, are certainly representations. There are, then, three necessary conditions for being truth apt: expressing a proposition, having a word-to-world direction of fit and being a representation. It now needs to be asked whether assumptions have these features.

By definition, assumptions express propositions (they are propositional forms). They also have a word-to-world fit: an assumption is correct if the proposition it expresses obtains in the actual world independently of that assumption. All that remains for assumptions to be shown to be truth-apt is to establish that they are representations. This might appear to follow automatically from the fact that thoughts are often referred to as 'mental representations', but the view that a symbolic mental system

that co-varies with states of affairs is thereby a representational system is not universally accepted. Barker (2004), for example, argues that for an object to count as a representation it must be intended as one. According to his argument, as the medium of thought is where intentions are formed, that medium cannot itself be representational if circularity is to be avoided. However, there is a way round this. What intentions give an object such that it serves as a representation is the function of representing. Functions are not solely the result of intentions, however, but also of evolution. Millikan (1984; 1993) provides a notion of function on which an object's proper function is the effect it has which ensures its reproduction. This conception thus allows for functions to be explained in evolutionary terms, so that the function of a component of an organism is that effect it has which contributes to the organism's evolutionary success. Hearts are reproduced because they contribute to the evolutionary success of the organism by pumping blood around the body. In a parallel fashion, it is the fact that a cognitive system represents the world for an organism which contributes to the reproductive success of that organism and hence the reproduction of that system. On this view, the proper function of the cognitive system is to represent the world, and assumptions therefore meet all the conditions for truth-aptness.

Not all propositional forms which play a role in cognition, however, aim at truth. Factual assumptions – i.e. propositional forms which consitute the basis of the individual's representation of the world (Sperber & Wilson 1995: 74) – can have as constituents further propositional forms. While the former aim at truth, the latter do not necessarily do so. Factual assumptions about another person's beliefs have a constituent propositional form, as in (13):

(13)   George believes that P

While the assumption (13) aims at truth, the embedded proposition P does not. This is because P serves not as a direct representation of the world, but as a representation of the content of another representation of the world, i.e. George's belief. If P is a

faithful representation of a belief of George's, then (13) is true, but this does not entail that P itself is true.

(14) I conjecture that Q

(14) also has a proposition as a constituent. In this case, however, Q serves (by virtue of its embedding form) as a representation of the world and thus does aim at truth.

What factual assumptions and the propositional forms embedded in (13) and (14) have in common is that they aim at consistency with a particular set of propositions: a factual assumption should be consistent with all other factual assumptions in a particular cognitive system at a given time; P in (13) should be consistent with all other propositions embedded under 'George believes that'; and Q in (14) should be consistent with all other propositions embedded under 'I conjecture that'. These assumptions 'aim' at consistency because they are treated as consistent even when, due to processing limitations, there may in fact be inconsistencies in the set which are unidentified as such by the cognitive system.

What distinguishes the set of factual assumptions from sets of embedded propositional forms is that the former track the actual world. Assumptions in this set are derived from perceptual stimuli and communication, and inferences drawn from these. Consistency here aims at maintaining and improving an accurate representation of the world. Where sets of embedded propositional forms are concerned, consistency is employed to develop reflective representations of the actual world, representations of other worlds and representations of other world-views. Humans have access to representations of fictional worlds, for example, and representations of the world-views of other individuals. Like an individual's representation of the actual world, these sets of representations aim at consistency, even if they generally don't serve as representations of the actual world Thus, consistency is a means of ensuring truth where factual assumptions are concerned,

but this is not necessarily so in respect of embedded propositional forms. Some cases, such as conjecture, will aim at truth, but others, such as fiction and belief attributions, will not.

This point will be important in the next chapter when an account of what is encoded by the indicative mood is developed and how this is related to assertoric force is examined. For the same reason, it is also necessary to look at sets of propositional forms that do not aim at consistency.

(15)　George desires that R

As well as representing the beliefs of others, humans also represent other people's desires, as in (15). These differ from representations of beliefs in that they do not aim at consistency and do not have implications in their own right. Indeed, it is important that the objects of desire attributions do not have implications in their own right, as this would warrant the inference that someone who desired a particular state of affairs also desired all the implications that the object of that desire would have if it were entertained as a belief. However, as examples (11) and (12) showed (repeated below) this is not the case: while (11)b is generally true if (11)a is true, (12)a would not normally imply (12)b.[17]

(11) a.　　Peter believes his mother will get better

　　 b.　　Peter believes his mother is ill

(12) a.　　Peter wants his mother to get better

　　 b.　　Peter wants his mother to be ill

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[17] Reasoning about behaviour in terms of beliefs and desires, is done not by using the contents of those beliefs and desires as premises, but by using metarepresentations of those contents (in other words, using as premises forms of the types exemplified by (13) and (15), not the embedded P and R).

When discussing metarepresentation, then, it needs to be borne in mind that the objects of metarepresentations are of two types: those which aim at consistency and therefore enter into inferential relations with other forms embedded under the same representation-type, and those that do not aim at consistency and thus do not interact in this way. The former mimic the behaviour of factual assumptions, while the latter do not. As will be shown later, the distinction between these two types of representations is reflected in natural language to a significant extent in terms of forms which can present a proposition as relevant in its own right and hence consistency-aiming, and those which cannot.
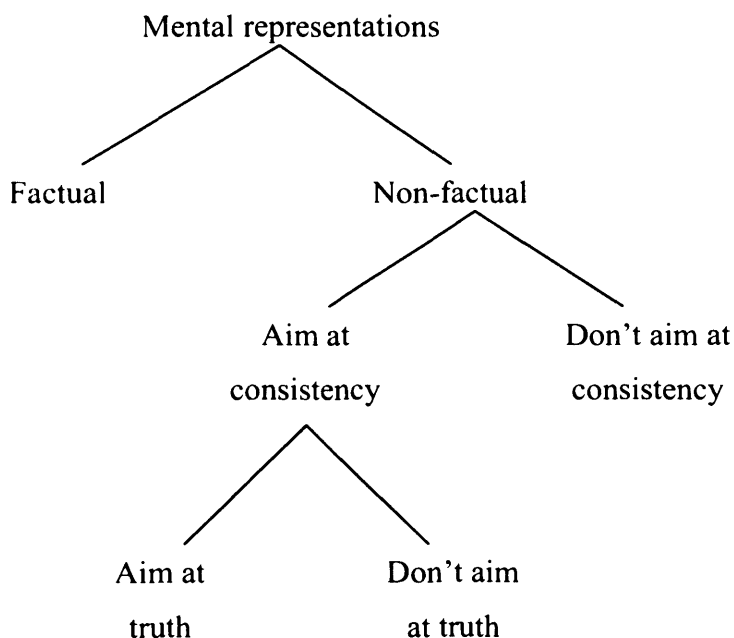
Figure 1: Types of mental representation

Figure 1 draws together the above discussion into a taxonomy of mental representations, where 'mental representation' means any propositional form that plays a role in cognition. Factual mental representations are those treated as facts by the system by virtue of their format: they are 'factual assumptions' in relevance-theoretic terminology and they necessarily aim at truth via consistency. Non-factual mental representations are propositional forms embedded in factual assumptions.

116

World-representing or world-view-representing non-factual representations (such as fictions and belief ascriptions respectively) aim at consistency, while desire representations do not. Finally, those non-factual mental representations which aim at consistency can be divided according to whether they aim at truth or not. Conjectures are an example of truth-aiming, non-factual mental representations.

As discussed in chapter 1, Frege's insistence on an assertion sign in his logical symbolism can be explained, following Green (2002) and Smith (2000), by considering the fact that one of the uses to which he intended this symbolism to be put was the acquisition and systemisation of knowledge. It was also noted how the aims of a cognitive system are essentially the same as this: its purpose is to maintain and improve the individual's representation of the world. It should therefore be no surprise to find that a model of this system will have in it a means of marking thoughts as having assertoric character. Thus, the basic, factual level of representation postulated by Relevance Theory echoes Geach's (1965) suggestion, also mentioned in chapter 1, that thoughts are necessarily assertoric in character unless embedded in a complex thought.

4.3   *Mental representation and possible-world semantics*

Chapter 1's distinction between an assertion, or an assertion-like mental representation, being true and a proposition obtaining is also important to an understanding of the two roles played by possible worlds in discussions of mental representation. On the one hand, those mental representations aiming at consistency have the function of representing particular worlds (and consistency is the means by which they fulfil this function). Factual representations are representations of the actual world. Non-factual, consistency-aiming representations are also world-representations: they might be representations of other possible worlds, as in the case of fiction, or they may be indirect representations of the actual world attributed to others. They may even be cautious or reflective representations of the actual world by the individual herself, as in conjecture.

On the other hand, possible worlds are employed in order to explicate the content of mental representations regardless of their representational function. Here, it is the propositional nature of mental representations, rather than their representational purpose, that is in play: possible-world semantics allows one to say how it is that mental representations have semantic content. Propositions can be thought of as identifying sets of possible worlds, and a proposition obtains in any given world if that world is a member of that set.[18] Thus, the proposition 'Paris is in France' obtains in this world because this world is a member of the set of worlds comprising that proposition.

While the set of factual assumptions held by an individual constitutes a representation of the actual world, it does not determine which possible world *is* the actual world. Rather, because that set of propositions will obtain in more than one possible world, it identifies a set of possible worlds which are candidates for the actual world. By adding to one's stock of factual assumptions, one reduces this set of possible candidates and becomes thereby more certain about the nature of the actual world. The same principle applies to representations of other worlds or world-views: the addition of further propositions reduces uncertainty as to the nature of the world represented by eliminating candidate possible worlds.

This view of certainty being increased by the reduction of the candidate possible worlds comes, of course, from Stalnaker's influential work on assertion and presupposition. This work is notable in that it suggests how the formal view of sentence meaning developed in model-theoretic semantics might be applied to pragmatics to solve what had hitherto appeared semantic problems, one example being the problem of presupposition projection (Stalnaker 1970/1999, 1973, 1974/1999, 1978, 1988/1999, 2002). This approach has proved very influential in

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[18] As was seen in chapter 1, propositions can also be thought of as functions from possible worlds to truth-values. Following Barker, this characterisation is avoided from now on so that the term 'true' is not applied to non-representational entities such as propositions.

what has come to be known as 'formal pragmatics' (See Kadmon 2000 for an overview), having played an important role in the development both of Kamp's (1981) Discourse Representation Theory and Heim's (1988) File-Change Semantics.

For Stalnaker (1978), an essential effect of an assertion is to extend, through the addition of the proposition expressed, the common ground shared by the participants of a conversation. On his view, the common ground is made up of the presuppositions of the participants of a conversation, these presuppositions being those propositions that an individual is disposed to behave as if she believes are true, and towards which she believes her audience to be similarly disposed. If propositions are viewed as sets of possible worlds, the propositions presupposed by the participants in a conversation will pick out the set of possible worlds in which those propositions obtain. Stalnaker terms this the 'context set'. As all the possible worlds in the context set are candidates for the actual world, assertion, on Stalnaker's view, functions by reducing this uncertainty through the elimination from the context set of those possible worlds incompatible with the proposition asserted. This is achieved when the participants of a conversation accept the proposition expressed by the assertion and add it to what they presuppose.[19]

The relevance-theoretic approach to communication can be analysed along parallel lines. It was noted above how communication on this view involves the modification of a mutual cognitive environment. As it consists in a set of manifest assumptions, a cognitive environment also picks out a set of worlds.[20] Acting ostensively modifies a cognitive environment, and the assumptions thereby communicated extend the cognitive environment by reducing the set of possible worlds which are candidates

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[19] This will be discussed in more detail in section 5.3.

[20] It is important, however, not to equate a cognitive environment with a representation of a world. A representation is a concrete thing, but, while many of the assumptions manifest to an individual will be entertained by him and hence be physically instantiated in the form of mental representations, it is central to the notion of manifestness that not all of them will be, as was seen earlier.

for the actual world. The same principle applies to any set of propositions which aims at consistency: increasing that set decreases the number of possible worlds picked out by that set. Thus, the Stalnakerian picture of a context can be applied not just to the common ground or to mutual cognitive environments, but also to any representation of any particular world that functions by seeking consistency in a set of propositional forms.

In sum, mental representations have content because they express propositions. A set of mental representations aiming at consistency can represent a particular world, but the propositions it expresses will obtain in more than one world, each of which will be a candidate for the represented world. So far, however, mental representations that do not aim at consistency have been ignored, so these must be considered now.

It has been argued that for a set of propositional forms to count as a world representation, it must aim at consistency, because consistency is the feature which allows assumptions to pick out a particular world. As noted above, representations of desire do not aim at consistency. They therefore cannot function as representations of a world. What, then, are they representations of? Consistent sets of propositions function as representations of *particular* possible worlds because, in possible world semantics, consistency entails a set of propositions obtaining in at least one possible world. By adding consistent propositions to that set, the number of possible worlds that the set obtains in is reduced. While a set of propositions that does not aim at consistency will pick out a set of worlds in which that proposition obtains, adding to it will not reduce (and is likely to increase) the set of worlds picked out. In other words, the problem is as follows: a consistent set of propositions can function as world representations by virtue of the fact that it will obtain in at least one possible world. But an inconsistent set need not obtain in any possible world. How then, do propositional forms for which consistency is not an aim come to have a representational function?

There are a number of ways this problem could be addressed. Firstly, it could be denied that representations such as (15) are metarepresentations. This could be done by arguing that for a representation to count as a metarepresentation its object must have implications in its own right. As has been shown above, the objects of desire representations do not have implications in their own right. On this account, (15) (i.e. 'George desires that R') would count as a representation, but R would not. Propositionality would not constitute representationhood. This need not be as outlandish as it might seem. Factual assumptions are representations by virtue of their causal relation to the environment and their evolutionary function. Consistency-aiming, non-factual mental representations are, to some degree, representations because they mimic the behaviour of factual assumptions. Propositional mental objects that are neither causally related to the environment nor mimic the behaviour of factual assumptions might well be denied the status of representations.

A second approach might be to suggest that the objects of desire reports are not representations of worlds but representations of thoughts. R in (15) would not, on this account, function as a representation of a world but as a representation of a thought of the person to whom the desire is attributed. This would be an interpretive use of language, in Sperber & Wilson's (1986/1995: 224-231) terminology, as discussed in relation to irony in chapter 1. The problem with this account is that it would lead to a parallel view of belief reports, as these also contain a representation of a thought attributed to another. The result would be that the objects of belief reports we no longer seen as world representations. However, the thought represented in belief ascription is itself a representation of the world, and so it seems far to say that the object of belief reports are world representations, albeit indirect ones. Moreover, individuals often adopt the objects of belief ascriptions as factual assumptions of their own, which further strengthens the case for considering them

(indirect) world representations.[21] Thus treating the objects of desire representations as representations of thoughts only postpones the issue of explaining what they ultimately represent: one still has to explain what the thoughts they represent in turn represent such that they are different from beliefs.

The third option is to treat mental representations that don't aim at consistency as representations not of particular worlds, but of world-parts. A number of possible worlds can contain the same part or feature, so a world-part representation will pick out a set of worlds, just as a representation of a particular world will. This would mean that the objects of belief reports and desire reports both pick out sets of worlds, but because the object of a desire report does not aim at consistency, it cannot represent any particular world. Rather, it identifies a set of worlds that possess a feature that the person to whom the desire is attributed finds desirable (if the desire attribution is true). This is a very different form of representation to that achieved by consistency-aiming propositional forms, a difference perhaps best captured in terms of direction of fit: consistency-aiming propositional forms have a word-to-world direction of fit; non-consistency-aiming propositional forms have a world-to-word direction of fit and hence are not truth-apt.

This last approach correctly predicts the conditions under which desires will be incompatible: if the world-part represented by one desire object is not part of at least one world which also has, as a part, the world-part represented by another desire object, then the desires are incompatible. As there is no world which has as a part that I give up smoking and simultaneously that I have a cigarette, these desires are incompatible. This approach avoids having to deny that the objects of desire reports are representations, but identifies them as a distinct type of representation from that

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[21] See Sperber (1997) for a discussion of the condition under which we adopt the objects of belief ascriptions as beliefs of our own.

found in belief reports. Moreover, this distinction in representation type is explainable in terms of whether or not the propositional form is consistency-aiming.

This approach also has the advantage of fleshing out the intuition that when expressing a desire, individuals don't make a claim about the world but specify a feature they would like it to contain. To this it might be objected that expressing a belief specifies a feature the world contains, and that therefore beliefs should also be analysed as representing world-parts, and not worlds. The crucial point, though, is that one does more than claim that the world has that feature, as one commits oneself to all the features this implies, even if one is ignorant of these, this being what underlies Green's (1997; 2000) notion of assertoric commitment and Portner's (1997) notion of an expandable context (discussed in chapter 4). For this reason, even simple belief expressions or reports can be viewed as representations of whole worlds. Given these advantages, the third solution seems the best of the three.

So distinguishing the set of worlds that a mental representation picks out by virtue of its propositional nature from the world it represents by virtue of its representational function is important if the different semantic properties of the objects of belief reports and the objects of desire reports are to be explained. Because both are propositional, both will pick out sets of possible worlds in which they obtain. However, their distinct inferential properties allow them to fulfil different representational functions. Crucially, because those that aim at consistency are able to eliminate candidate worlds, they are able to function as representations of particular worlds.

The above analysis of belief vs. desire ascriptions owes a great deal to analyses of the indicative/non-indicative distinction by Farkas (1985; 1992), Huntley (1984) and Portner (1997). What these analyses (which will be discussed in detail later) have in common is that they seek to explain the indicative/non-indicative contrast by relating the indicative, on the one hand, to particular worlds, and various varieties of non-indicative, on the other, to sets of worlds (or worlds vs. world parts, in Portner's

case). The current account, though, takes this approach further by explaining how the logical properties of mental representations determine their representational function. In other words, it doesn't simply stipulate that a form is specified for representing particular worlds but shows how this follows from its logical properties and the nature of the representational system in which it operates.

4.4   Summary

A lot of ground has been covered in this section, and it is therefore worth outlining the picture of mental representation and meaning developed here. The view that propositions are the bearers of truth has been rejected, following Dummett, Barker and García-Carpintero. Rather, propositions are sets of possible worlds, and a proposition obtains in a particular world if that world is a member of the set. A truth-apt object must have three features: it must express a proposition; it must have word-to-world direction of fit; and it must be a representation. This explains why assertions and beliefs can be true, while commands and intentions cannot, even though all four express propositions.

One advantage of this position is that the role played by propositions in language comprehension becomes clear in relation to both truth-apt and non-truth-apt uses of language. Understanding an assertion and understanding a command can both be characterised in terms of picking out the set of possible worlds in which that proposition obtains. Understanding the difference between the two requires, in part, grasping the different representational function to which the form expressing the proposition in each case is put: in the first case it is a representation of a particular world; in the second it is a representation of a world-part.

This is not to not deny, as Carston (2002b: 133) has argued, that the propositional form of a non-declarative utterance is, in terms of its effect on processing, functionally inert in its own right (indeed, this point will be important in the analysis of the indicative/non-indicative contrast developed in subsequent chapters). The point, rather, relates to the semantic properties of interpretations of these forms

rather than to the process of their interpretation.[22] It is to deny, however, that conceptual representations are representations of propositions (Carston 2002b: 125 expresses the relationship between the two in these terms). Conceptual representations are representations of particular worlds or of world parts, depending on whether or not they aim at consistency. That they *express* propositions enables them to have these functions.

Moreover, that a form cannot be evaluated as true or false does not make it unamenable to analysis in truth-conditional terms (as Carston 2002b: 133 suggests). It is possible to give T-sentences for imperatives, say, just as for declaratives. However, the 'true' employed in such a T-sentence is that of a proposition expressed by that form obtaining, not of an assertion of that proposition being in fact true (or, indeed, of an order expressing that proposition being complied with). But it is 'true' as applied to assertions in which a complete theory of linguistic meaning based on truth must be grounded: the other 'true' gives no more that an account of the contribution to meaning made by propositions, which are themselves no more than abstract entities employed to explicate linguistic meaning. But 'obtaining-conditional semantics' is an ugly term which is unlikely to catch on, and so, with the above provisos, the term 'truth-conditional' and its variants will be used in what follows to refer to a non-mentalist approach to the study of linguistic meaning, an approach that will be contrasted with a view of linguistic semantics as the input to the cognitive process of utterance interpretation.

5   LANGUAGE IN COMMUNICATION

The previous section considered the relevance-theoretic view of mental representation and, briefly, how ostensive-inferential communication functions by modifying the mutual cognitive environment of the speaker and hearer. This section will look at the role played by language in communication of this sort.

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[22] I.e. it is a 'truth-conditional semantic' rather than a 'linguistic semantic' point, in terms to be discussed in section 5.1

125

5.1 What do sentences encode?

In responding to the question which heads this subsection, it is necessary to distinguish clearly between input and interpretation. A distinction has often been drawn by those working in Relevance Theory between semantics understood as what is encoded by linguistic forms, and semantics understood as the relationship between such forms and the world. For some (e.g. Lewis 1970), the term 'semantics' should by definition be applied only to the latter relationship. However, following Sperber & Wilson (1986/1995), relevance theorists such as Carston (2002b) and Clark (1991), argue that a full appreciation of the word-world relationship requires an understanding of how that link is mediated by the cognitive process of utterance interpretation.

On the relevance-theoretic view, developing an accurate picture of utterance interpretation involves reference to two distinct types of semantic interpretation, one a psychological process, the other not. The psychological process involves translating natural-language input into the medium of thought, itself, as noted earlier, taken to be language-like enough to be termed 'the language of thought'. For reasons that will be discussed briefly below, 'sentences' of the language of thought are considered to have an essential characteristic which natural-language sentences lack: determinate truth-conditions. In other words, these mental representations of states of affairs are fully propositional, while their natural language counterparts are not. They can thus be interpreted in the second sense: by being compared with the world and judged either true or false.[23] This is patently not a psychological process, for humans are not able to have knowledge of the world except via mental representations.[24] The ascription of truth-conditions to mental representations is,

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[23] Although this position is widely held, it is not immune to possible challenges. See Carston (2002b: 74-83) for discussion.

[24] This is not to deny, of course, humans are capable of judging thoughts to be true or false. According to the Fodorian representational/computational view of the mind assumed by Relevance

rather, a theoretical tool which enables the cognitivist to explain how it is that thoughts have content, i.e. via a mapping between the conceptual constituents of mental representations and the world.

On this view, then, what is encoded by linguistic forms are not rules for mapping such forms to states of affairs in the world, but schemata for the construction of mental representations of states of affairs and hints as to the sort of contextual assumptions that should be brought to bear on the interpretation of these. While there will be a degree of correspondence between the conceptual information encoded by the linguistic form and the mental representation, it should not be thought that the information encoded by natural-language sentences is in itself sufficient for the construction of fully-propositional mental representations. Indeed, if this were the case, then it would be possible to abstract away from the psychological process of deriving a language-of-thought sentence from a natural-language sentence, for the latter would, albeit indirectly, determine a uniquely identifiable state of affairs (i.e. the truth-conditions of the mental representation), and the mind could be bypassed in an account of how natural language is meaningful. That such an abstraction would obscure, rather than clarify, the picture is primarily due to the now widely accepted observation that natural language sentences radically underdetermine the truth-conditions of the propositions they are used to convey. This topic has been much discussed (see Carston 2002b: chapter 1, and references therein), so here it is enough to point out that not only must reference assignment, disambiguation and the addition of other necessary material take place before determinate truth-conditions can be identified, but that in many cases linguistically encoded concepts must be broadened or narrowed in accordance with speaker intention so that they pick out more or less than their linguistically encoded denotation would indicate. Thus, there is a great deal of inferential work to be done

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Theory, however, this is done by evaluating a thought's compatibility with other thoughts held to be true, as was seen in section 4.2.

in order to discern the proposition intended by the speaker in using a particular linguistic form. Another important reason for not abstracting away from the mental in the analysis of linguistic meaning is that, as will be seen below, some of what is encoded by natural language sentences does not contribute directly to propositional content but, rather, affects the way the context is accessed and manipulated.

In order to examine the relationship between what is linguistically encoded and the truth-conditional content of the speaker's intended meaning, it is useful to first examine in more detail the various different kinds of encoded meaning.

encoding

conceptual   procedural

contributes to   doesn't   contributes to   doesn't
the   contribute to   the   contribute to the
proposition   the proposition   proposition   proposition
expressed   expressed   expressed   expressed

                                                            influences which   influences how
                                                            propositions are   communicated
                                                            communicated   propositions are
                                                                                      processed
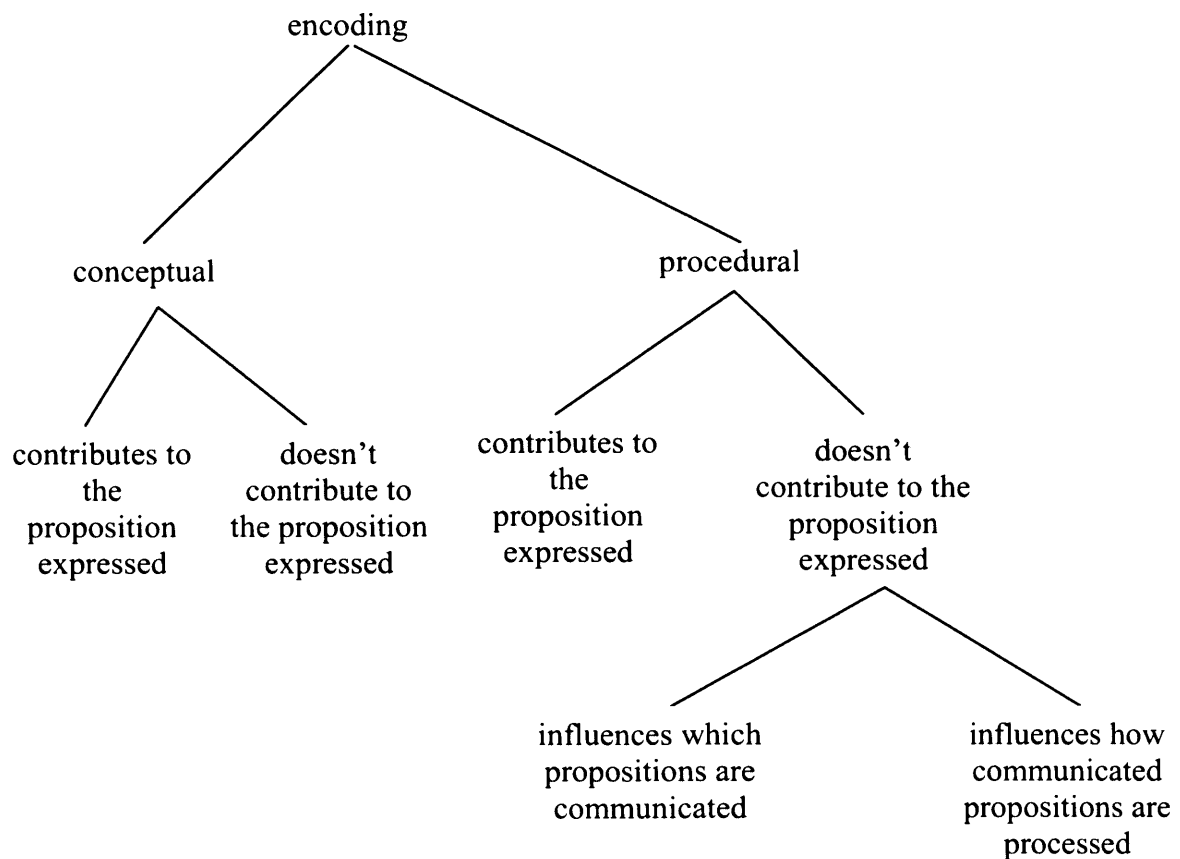
Figure 2: Varieties of linguistically encoded meaning

Figure 2 analyses linguistically encoded meaning first according to whether it is procedural or conceptual, then according to whether it contributes to the proposition expressed, and finally to whether it influences which propositions are communicated – and hence processed – or how these are processed.

The idea of conceptually encoded meaning that does not affect the proposition expressed may seem odd, but consider (16)a:

(16) a.   Peter's left, I suppose

      b.   The speaker supposes that Peter has left

(16)a is true if Peter has left, false if he has not. The effect of the parenthetical 'I suppose' is to communicate that the speaker is less than certain of the truth of the statement in the remainder of her utterance. In Relevance Theory, this has generally been explained by arguing that the parenthetical results in a higher-order representation along the lines of (16)b being added to the context in which (16)a is interpreted, resulting in the conclusion that this has been uttered with less than 100% certainty (Blakemore 1990/91; Ifantidou 2001; Wilson & Sperber 1993). The parenthetical information thus contributes to the truth-conditions of (16)b, though not to the truth-conditions of the utterance. This is not the case with all parentheticals, however. (17)a would appear to be true only if (17)b is:

(17) a.   Peter, it is alleged, is innocent

      b.   It is alleged that Peter is innocent

When conceptually encoded meaning does contribute to the proposition expressed by an utterance, this is not necessarily by contributing the meaning linguistically encoded by that form to the mental representation the utterance gives rise to. Rather, what generally happens is that only some of the encyclopaedic and logical information associated with a lexically encoded concept also appears in the corresponding mental concept, the degree of similarity between the two

129

corresponding broadly to intuitions about whether the use of a word or phrase is literal or figurative (though in Relevance Theory these are pre-theoretical terms without direct equivalents within the framework).

This can be illustrated by looking at the contribution of the word 'flat' to an utterance such as (18), uttered as part of a discussion concerning suitable destinations for a cycling holiday.[25] There are competing intuitions about what 'flat' means in this utterance: on the one hand, there is the intuition that it means something like 'level and smooth', while on the other it is clear that applying this definition to (18) would make it literally false.

(18)   Holland is flat

Although Holland is not, strictly speaking, flat, it is less 'unflat' than, say, Norway, and is thus a less challenging destination for a cycling holiday. In such a case, what is communicated by the lexical item 'flat' is the concept FLAT*, i.e. something like 'level to such a degree as to make cycling reasonably easy'. Faced with this observation, the theorist has a number of options. She may decide that 'flat' is polysemous, and that an utterance of (18) requires a process of disambiguation on the part of the addressee. Or she may decide that (18) is literally false and that the speaker is not speaking literally but figuratively, and that 'flat' here receives a metaphoric interpretation. The problem with the first of these strategies is that it would require a distinct lexical entry for each degree of flatness (or at least the listing of an indefinite number of related meanings under a single lexical entry), while the second would mean that so much communication was figurative that the term would lose its appeal.

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[25] This example comes from Wilson & Sperber (2002). For discussion of the relationship between linguistically encoded conceptual meaning and communicated meaning, see Sperber & Wilson (1998) and Carston (2002b: chapter 5).

The alternative, and this is the route taken by relevance theorists, is to decide that the lexical item 'flat' encodes something like 'level and smooth', but that this is merely a clue to, not a failsafe indicator of, the speaker's intended meaning, which can be characterised by (19) and which is inferred on the basis of the linguistically encoded meaning and contextual assumptions, the inference being guided by considerations of relevance.

(19)   Holland is FLAT*

Thus, what is encoded by the linguistic item 'flat' makes only an indirect contribution to the truth-conditions of the utterance, this being an example of the notion of concept broadening mentioned earlier in this section.

Procedurally encoded information is information which does not contribute a concept to the utterance interpretation process but rather constrains or guides that process in some way. The term comes originally from work on discourse connectives such as 'but' and 'after all' by Blakemore (1987; 2000; 2004), though it is now generally agreed by those working in Relevance Theory that pronouns and mood markers can also be fruitfully analysed as cases of procedural encoding, the difference between them being what aspect of the interpretation process they constrain. The procedures encoded by discourse connectives do not contribute directly to the propositional content of what is communicated, having an effect, rather, on the context in which utterances are interpreted. The procedures encoded by pronouns are such that they constrain the explicit propositional content of an utterance; for instance, in the case of 'he', the constraint requires that a concept denoting a particular individual male must be entered in the corresponding slot in the mental representation. As such, pronouns contribute, by virtue of the procedures

131

they encode but without encoding a concept, conceptual information to the propositional content of an utterance.[26]

Those elements of linguistic encoding that contribute to the propositional content of an utterance, whether conceptually or procedurally encoded, will make the same contribution regardless of the force of the utterance. But not all procedurally encoded information contributes to the proposition expressed. As shown in figure 2, procedural information encoded by an utterance can also play a role in determining which propositions are communicated and how these are processed. This distinction is analysed by Wilson & Sperber (1993) according to whether the encoded information constrains explicatures or implicatures, terms which will be discussed in some detail in section 5.2. For now, it is necessary only to note both that the proposition expressed will not necessarily play a direct role in the interpretation of the utterance; and that assumptions concerning the speaker's actions and attitudes will contribute towards interpretation.

(20)	a.	The train left five minutes ago
	b.	The speaker is saying that the train left five minutes ago
	c.	The speaker believes that the train left five minutes ago
	d.	We have missed the train
(21)	a.	Leave the book on my desk
	b.	The speaker is telling me to leave the book on his desk
	c.	The speaker wants me to leave the book on his desk

An assertion of (20)a might communicate all of the propositions expressed by (20)a to d, while the request performed using (21) can communicate those propositions expressed by (21)b and c, but not that expressed by (21)a itself. Mood markers thus

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[26] Wilson & Sperber (1993: 20) point to similarities between this view of pronouns and Kaplan's (1978) distinction between character and content.

constrain which higher-order representations an utterance can communicate (so that imperative syntax cannot communicate that the speaker believes the proposition expressed by the utterance, for example), and also whether the proposition expressed by the utterance itself is communicated. Notice how the derivation of (20)d relies on the speaker employing the proposition expressed by (20)a in inference. The speaker who intends to communicate the latter must therefore also communicate the former. When an imperative is uttered, however, it is not possible to employ the proposition expressed by the utterance in the derivation of cognitive effect (except as a constituent of a more complex proposition). Mood markers thus both determine whether the proposition expressed is a possible communicated assumption and constrain the type of attitude the speaker could have towards that proposition.

But mood markers will be the topic of the next two chapters. The focus here is the distinction between the semantic content of interpretations and the linguistically encoded input to the interpretation process. These two kinds of 'semantics', as noted at the outset of this sub-section, have been termed truth-conditional and natural-language semantics respectively. The former plays a dual role in Relevance Theory as both an observational and an explanatory tool.

It was noted above how the fact that utterances have propositional content is ultimately explained by postulating a language of thought. This is assumed to have a compositional semantics by virtue of a direct mapping between the conceptual representations that serve as constituents in fully-propositional mental representations and entities and properties in the world. Thus, truth-conditional semantics here plays an explanatory role: it explains how utterances have, via their relationship with mental representations, content.

However, truth-conditional semantics also plays an observational role, one which can be highlighted by looking again at the discussion of 'flat' above, where it was noted that (18) is literally false and that the intended meaning of an utterance of (18) is something like (19), which is truth-conditionally distinct fromo (18). A theory of

utterance interpretation is then employed to explain how (18) could be used to communicate (19). Thus, truth-conditional semantics is used both in observation of the phenomenon to be explained and in its explanation. There is nothing wrong with this, of course, but a theorist must be aware of the use to which he is putting truth-conditional semantics at any point in his theorising.

The case can be stated more generally as follows: in seeking to explain the process of utterance interpretation the theorist sets himself the task of explaining how an addressee arrives, as a result of processing a speech act, at an understanding of the intended explicit content of the linguistic form. He has then, a target for explanation: *viz.* the interpretation of the sentence uttered. Although this linguistic form has the intended truth-conditional meaning only as a result of being translated into a fully-propositional mental representation, the theoretical machinery that underpins this claim has been set up to explain *how* this form is meaningful for an addressee. A theory of utterance interpretation cannot be asked to explain *what* the sentence (uttered in context) means, for the existence of this meaning is the very phenomenon it has been set up to cast light on.

If it is assumed that utterances have truth-conditional meaning, then theories both of how they mean and of what they mean are needed, the latter being the *explicandum* of the former. How utterances mean is a question for cognitive science; what they mean is a question that can be answered largely mind independently ('largely', because, as mentioned above, there are some elements of linguistic meaning which seem not to affect the truth-conditions of an utterance but only the manner of its processing, and these cannot easily be analysed mind-independently). Nevertheless, the truth-conditional content of utterances can be analysed in such a manner, and, indeed, it must be if a cognitive theory of utterance interpretation is to have anything to explain.

If, then, a truth-conditional theory is needed in order to explain what utterances mean, how is this related to the task of explaining how they mean? Utterances mean

because they represent, for humans, states of affairs. In order to explain how something represents a state of affairs, it is necessary to posit a representational system, for representation is a three-way relationship between an object, what it represents and an information-processing system (Sperber 1996: 61). Given such a system, an attempt can be made to explain how changes in the representations it forms are related to changes in the input to this system. For those concerned with linguistic communication, the interesting input is linguistic, though it is, of course, necessary to consider how this combines with other sorts of input, both from perception and memory. Given an utterance such as (22), then:

(22) Peter kicked the ball

it is necessary to explain how this will modify the human cognitive/representational system such that for that system it means that Peter kicked the ball. The crucial point, though, is that without a theory of what (22) means there is no way of predicting what effect it should have on the system to which it is inputted. It is precisely this role of providing predictions against which to measure the success of models of utterance interpretation which is the theory-building, as opposed to explanatory, role of truth-conditional semantics.

If all sentences were as simple as (22), it would perhaps be possible to stick with pre-theoretical notions of meaning as the measure of the success of models of interpretation. But the existence of forms whose precise meaning is very hard to articulate – such as belief reports, counterfactuals and sentences containing modal verbs – requires employing theoretical tools, such as possible worlds-semantics, in an attempt to explicate just what a processing model needs to be able to account for.

The reason it is important to be clear about this theory-building role of a mind-independent semantics is that it helps to clarify just what is being claimed about what is encoded by linguistic forms. As chapters 3 and 4 will show, this is especially pertinent to current concerns, for the proposal to be developed will argue that what is

135

encoded by the indicative mood will sometimes have truth-conditional effects on interpretation, and sometimes will not. For now, though, it is enough to recognise that the theory-building role of truth-conditional semantics helps to distinguish between different claims about the semantics of linguistic forms. Expressed in truth-conditional terms, such claims are observations concerning what a natural-language semantics, in combination with a theory of utterance interpretation, needs to explain. In natural-language terms, as understood here, claims about what is encoded amount to claims about the effect that such forms have on the representational system, effects which can either affect the propositional content of the utterance or not.

5.2 Explicit and implicit communication

Examples (20) and (21) (repeated below for convenience) show that speakers communicate many more propositions than the one expressed by the linguistic form of the utterance. How these are derived will be considered here, with particular focus on the contrast between explicit and implicit communication. It will be noted in particular that assertions have the unique potential of communicating the proposition expressed by the sentence uttered, a potential that other speech acts do not have. [27]

(20) a. The train left five minutes ago

b. The speaker is saying that the train left five minutes ago

c. The speaker believes that the train left five minutes ago

d. We have missed the train

(21) a. Leave the book on my desk

b. The speaker is telling me to leave the book on his desk

c. The speaker wants me to leave the book on his desk

In Relevance Theory, if the proposition expressed by the linguistic form of an utterance is communicated (i.e. made manifest or more manifest), then that it is an

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[27] Indeed, the fact that assertions explicitly express the proposition to which the speaker is committed is seen by Alston as central to an analysis of this act (2000: 116-120).

'explicature' of that utterance. Thus, (20)a represents the utterance's linguistic form, the proposition it expresses and its explicature (modulo earlier points about underdeterminacy), while (21)a represents only linguistic form and the proposition expressed. Non-declaratives, as Carston (2002b: 120) rightly emphasises, never communicate the proposition expressed. Both declaratives and non-declaratives, however, communicate higher-order representations about the speaker's behaviour and her attitude to the proposition expressed. As these propositions are derived by developing the schematic linguistically encoded input an utterance provides (i.e. its logical form), they are also explicatures of a kind, termed higher-order explicatures due to the fact that they take the proposition expressed as objects. Communicated propositions not derived by developing the logical form of an utterance, such as (20)d, are termed implicatures.

Carston notes that, in many cases, utterances that express more than one proposition also communicate more than one of those propositions. The examples below illustrate the sort of cases she considers:

(23)   I'm certain that Peter has passed the exam

(24)   Jane didn't pass the exam because she never sat it

(25)   Chomsky says that the language faculty is innate

(23) could communicate both that Peter has passed the exam and that the speaker is certain of this, and (24) that Jane didn't pass the exam, that she never sat it and that the former is a consequence of the latter. Citing an authority, as in (25) may give the hearer reason to believe the proposition expressed by the subordinate clause (recall the way Darwin's ideas are presented as fact in example (42) of chapter 1). In all of these cases, the communicated embedded proposition would be derived by developing a logical form of an utterance. For this reason, Carston offers the following definition of explicature, which differs from the original proposed by Sperber & Wilson (Sperber & Wilson 1986/1995: 182) in that it emphasises that an

explicature need not be *the* propositional form of an utterance but *any* communicated proposition expressed by the utterance:

> 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 2002b: 124).

It is important to note that the fact that a proposition expressed by a sentential subpart of an utterance is entailed by the proposition expressed by the whole utterance does not necessarily mean that it is an explicature of that utterance. (26)a below entails (26)b, but this fact is clearly highly manifest to the hearer and hence it is not communicated by the utterance and is therefore not an explicature. Contrast this with the dialogue in (27), where the entailed embedded proposition in B's reply could indeed be an explicature of the utterance if the hearer is unaware of the fact that David has been deceiving Victoria.

(26) a.   I'm glad you're here
     b.   The hearer is present
(27) A: Why's Victoria crying?
     B: She's just found out that David's been deceiving her

Where assertions such as (20) are concerned, higher-order explicatures show similarities with what Stalnaker terms non-essential effects of assertion. It has been noted on a number of occasions in this thesis that Stalnaker views modification of the common ground by the proposition expressed as an essential effect of assertion. Other changes to the common ground result from the fact that a 'conspicuous' or 'manifest' event (Stalnaker 2002: 708 is where the latter term is used) has occurred, such as someone leaving or entering the room in which the conversation is taking place. Stalnaker points out that an assertion (or, indeed, the performance of any speech act) is such an event and will thus in itself change the context. This type of context change differs from the essential effect of assertions in that it is not dependent on acceptance by the audience.

The parallel here between the notion of a higher-order explicature and Stalnaker's non-essential effect of assertion is clear. Just as the context may not be changed by the content of an assertion if it is rejected by the audience, so 'base-level' explicatures (such as (20)a) can be rejected and not modify the mutual cognitive environment. However, the descriptions (20)b and (20)c will not necessarily be rejected along with it and may still result in a change to the mutual cognitive environment in just the way that Stalnaker's non-essential effect will affect the common ground. Some higher-order explicatures, though, will only follow if the assertion is accepted. Consider, for example, factives such as 'know': 'The speaker knows the train left five minutes ago' can be a higher-order explicature of an utterance of (20) only if the assertion is judged true.

5.3   Assertion and common ground

Having mentioned on a number of occasions that Stalnaker sees modification of the common ground by the proposition expressed as an essential effect of assertion, it is necessary now to consider how this fits into the relevance-theoretic picture being developed here. Sperber & Wilson define an ordinary assertion as one which communicates its propositional form. They use the term 'ordinary assertions' to distinguish what might be termed 'informative assertions' from utterances of assertoric forms on occasions when the speaker's intention does not include communicating the proposition expressed (1986/1995: 181). Examples of such occasion are ironic utterances, utterances such as (28)a, where the speaker's intention is not to inform the hearer of the proposition expressed but to communicate the higher-order explicature (28)b, and cases where the speaker expresses the content of a belief in full knowledge that her hearer will not accept it. Such a case would be the defiant expression of a religious belief under persecution.

(28)   a.   You've had your hair cut
          b.   I notice you've had your hair cut

In order to see whether communicating the propositional form, as in ordinary assertion, amounts to an attempt to modify the common ground by the addition of that proposition, it is necessary to consider again what is meant here by 'communicate'. Sperber & Wilson define communication as a modification of the mutual cognitive environment of the speaker and the hearer such that the speaker's intention to make manifest or more manifest a set of assumptions is mutually manifest. An assertion of (20)a will thus have the aim of making mutually manifest the speaker's intention to make (more) manifest a set of assumptions with the propositional forms that are expressed by (20). Communication is thus successful if this intention (the communicative intention) is fulfilled. Note that this does not entail that any of the propositions expressed by (20) actually becomes manifest to the hearer, merely that the speaker's intention that they should does. Thus, an ordinary assertion, one for which the intention is to communicate the proposition expressed, is successful on these terms as long as the fact that the speaker has this intention is mutually manifest. The hearer does not have to accept (i.e. judge as true) the content of the explicature.

For the content of the explicature to be judged true, the speaker must fulfil his informative intention. In the case of (20)a, this is the intention to make manifest the set of assumptions in (20). When the informative intention is embedded in a communicative intention, fulfilling the former will thereby make that set of assumptions not only manifest but also mutually so. As such, the content of the explicature, if there is one, will certainly be added to the common ground. Modifying the common ground in this way (i.e. though the overt fulfilment of informative intentions) is certainly seen by Sperber & Wilson as an aim of most verbal communication (1986/1995: 64), though not constitutive of it. Thus, for an assertion to be a successful act of communication in Sperber & Wilson's sense, all that matters is that the speaker's intention that the speaker come to believe the content of his explicature be mutually manifest. For an assertion to be successful in Stalnaker's terms, though, the speaker must also fulfil her informative intention, not merely make it mutually manifest that she has this intention.

This difference, though, is essentially terminological. A successful assertion in Stalnaker's terms is one in which, in relevance-theoretic terminology, the speaker fulfils both his communicative and informative intentions, thereby modifying the common ground/mutual cognitive environment. The fact that Sperber & Wilson term assertions made with this intention 'ordinary' does indicate that they see these as in some sense prototypical, with the existence of 'non-ordinary' assertions being parasitic on these. In the end, the debate would come down to what one wants to call a successful assertion: one in which the proposition expressed is judged as true by the audience, or one in which the speaker's intention that they should do this becomes manifest. But nothing much appears to hinge on this. Indeed, the most likely source of the difference is the fact that these authors are engaged in distinct projects, Sperber & Wilson aiming to provide an account of human communication, Stalnaker an analysis of the different ways the common ground can be modified by an assertion, with a view to explaining certain phenomena generally described as presuppositional.

6 SUMMARY

It was noted at the end of chapter 1 that many authors see assertion as having a functional characteristic, in addition to its truth committing feature. This is expressed in a variety of ways: as the function of communicating knowledge (García-Carpintero 2004; Williamson 1996), of communicating information (Dummett 1981), of opening up an area for debate and advertising commitment (Barker 2003), or of putting forward a proposition for inclusion in the common ground (Stalnaker 1978), all of which can be glossed as informing the audience of the proposition expressed. What is now clear is that Sperber & Wilson also see this functional element as distinguishing (ordinary) assertion when they say that the proposition expressed should be among the propositions falling under the speaker's informative intention. The picture of assertion that is emerging is thus of a speech-act with the following features:

I. **It commits the speaker to the truth of the proposition expressed.** In this it is similar to both presupposition and expressions of assertoric commitment, such as the use of 'as'-parentheticals *à la* Green.

II. **It has the function of informing the listener of this proposition.** This distinguishes assertion from both presupposition and expressions of assertoric commitment.

III. **It explicitly expresses a member of the set of assumptions covered by the speaker's informative intention.** This distinguishes assertion from the other major speech acts, such as commanding/requesting and asking, as well as from implicature.

What is notable is that features I and II are potentially explainable in terms of relevance: for an assumption to be relevant to an individual it must be both true and informative. This opens up the possibility of accounting for both features with one concept. The next chapter will consider how this might be done by linking the indicative mood and relevance, thus covering point II raised at the end of the last chapter, i.e. the issue of the relationship between this mood and assertion.

CHAPTER 3: ASSERTION AND THE INDICATIVE MOOD

1 INTRODUCTION

Although the last chapter ended with a discussion of assertion in Relevance Theory – in particular the notion of an 'ordinary' assertion – nothing has yet been said about how the indicative mood and assertion are related. This chapter, therefore, will relate the discussion of mental representation in the previous chapter to matters of linguistic form and practice, so that an account of the contribution made by the indicative mood to the utterance-interpretation process can be developed. In other words, the aim will be to specify a linguistic semantics for the indicative mood such that it explains both the truth-conditional and the non-truth-conditional effects that it has been observed to have.

In doing so, it will be important to note (following, in particular, Pendelbury 1986) that mood has a role to play regardless of whether it is found in a main or embedded clause, as the minimal pair in (1) show:

(1)   a.   I insist that Peter is here
       b.   I insist that Peter be here

Whereas in (1)a the speaker is committing himself to the view that Peter is present, in (1)b he is expressing his desire that this be the case, a distinction marked only by the mood of the subordinate clause. But while (1)a might be called an embedded assertion, it is clear that the presence of the indicative mood in a subordinate clause does not necessarily result in assertoric commitment, as (2) shows:

(2)   I hope that Peter is here

The fact that mood has an effect even when embedded presents a choice between opting to distinguish between main-clause mood and embedded mood, as Dummett (1981) and Harnish (1994) do, or aiming for a unitary account of mood that will

explain its effects both when embedded and when not. The second option will be taken here as it is the more parsimonious of the two, and because there are many cases where the expression of a proposition by an embedded indicative does indeed lead to assertoric commitment, main-clause parentheticals being the clearest case. The simplest way to explain this is to have the contribution to interpretation made by the indicative the same in embedded and unembedded cases of its occurrence. Clearly, however, this move would shut down any possibility of a direct link between form and force if the presence of the indicative in the subordinate clause of (2) is to be explained.

The aim, therefore, is to find an encoded contribution to interpretation that can explain how, under the right circumstances, the utterance of an indicative clause, embedded or otherwise, can result in assertoric force, but without its presence necessarily having this effect. At the same time, it will be necessary to explain the role of the indicative in those cases where assertoric force does not follow.

In order to give an adequate account of the indicative, there will be a need to throw it into relief at times though comparison with another mood. In this chapter, this will be done mainly by reference to the imperative, though a thorough analysis of this form will not be given. However, a detailed analysis of a non-indicative form will follow in chapter 4, which takes a close look at the indicative/subjunctive contrast in Spanish, which has often been discussed in terms of assertion and non-assertion

2   MOOD IN RELEVANCE THEORY

2.1   The standard relevance-theoretic approach

In an number of works, Deirdre Wilson and Dan Sperber seek to address the problem of how mood can make a contribution to interpretation both at the utterance level and at subordinate-clause level. They do this by proposing a semantics for the

major moods which constrains the types of world they can represent.[1] For the moment, the question of whether 'semantics' relates, in the terms of the last chapter, to natural-language semantics or truth-conditional semantics will largely be ignored, though it will be discussed in some detail later. The semantics they propose is as follows:

Declarative/indicative sentences (or clauses) may represent a state of affairs as actual;

Imperative sentences represent a state of affairs as desirable and achievable;

Interrogative sentences represent a thought as desirable.[2]

Before these claims are questioned (noting in particular the use of 'may' in the semantics of the declarative/indicative), the way in which they are intended to solve the problems that the moods present will be examined.

As was noted above, the aim is for a theory of mood that explains the relationship between a linguistic form and the forces standardly associated with it without specifying that it be used only for the performance of acts carrying that force. Such a theory will provide an explanation for both main-clause occurrences of a particular form without its 'standard force' and the contribution made to interpretation when the form is embedded. In the case of the indicative, the same semantics needs to explain why the speaker is committed to the truth of both (3) and the proposition

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[1] As Wilson (1998-9a) points out, the relevance-theoretic literature on mood (Sperber & Wilson 1986/1995: 243-254; Wilson & Sperber 1988a, b, 1993) is somewhat confusing, as it focuses at times on the effects at utterance level and at times on what these forms are thought to encode without explicitly uniting the two. Wilson (1998-9a; 1998-9b) seeks to remedy this, and, unless otherwise indicated, most of this section is drawn from that work.

[2] The semantics for declaratives and imperatives are quoted directly from Wilson (1998-9a: 8). That given for interrogatives is taken from (Wilson 1998-9b) and expressed here in a manner parallel to the other moods. It is clear from these texts that the moods have their representational potential because of what they encode. Thus, these are claims about the linguistic semantics of mood.

expressed by the subordinate clause in A's contribution to (5), while she is not committed to truth in (4) (spoken as a contribution to a discussion of CS Lewis's Narnia books), in B's response in (5) or in the subordinate clause in (6).

(3)   The train leaves at 5:30

(4)   The children didn't go through a broom-cupboard, they went through a wardrobe

(5)   A: I insist that Peter is innocent
       B: (ironically) Oh yeah. He's innocent

(6)   Peter thinks Jane is innocent

In order to see how the standard RT approach seeks to deal with this problem, it is necessary to focus on what is deliberately *not* specified by these semantics: in the case of indicatives, it is who represents the state of affairs as actual that is left unspecified; in the case of imperatives, it is to whom the state of affairs is presented as desirable; while in the case of interrogatives, what is unspecified is to whom the thought represented is presented as desirable. The idea is that a sufficiently powerful pragmatic theory, such as Relevance Theory, will be able to fill in the gaps, allowing a relatively weak semantics to explain a wide range of cases.

So, in the case of (3), the state of affairs picked out by the proposition expressed is entertained as actual by the speaker. This alone, though, is not enough for assertoric force to follow. To count as an ordinary assertion, the speaker must also intend that the proposition expressed be an explicature of the utterance. In other words, it must make a direct contribution to the relevance of the utterance in its own right.

In (5), fact that the indicative is used in the embedded clause of A's utterance indicates that the actual world is being represented and thereby disambiguates between the two possible readings of 'insist' illustrated by (1) (repeated here):

(1)   a.   I insist that Peter is here

b.   I insist that Peter be here

B's response in (5) and the subordinate clause in (6) are cases where the person entertaining the description is not the speaker. In (6), the description is attributed to Peter, while in (5), B indicates that the proposition that his utterance expresses would only be entertained as a description of the actual world by a fool.[3] (4) is more problematic, for it could not be argued that anyone is entertaining a fiction as a description of the actual world. The best one could do is argue that the speaker is pretending that she is entertaining the proposition expressed as a description of the actual world, but as many genres of fiction, such as much science fiction, make no such pretence, this would be a difficult line to maintain. Rather, it is necessary to make use of the hedge in the semantics (i.e. the 'may') and argue that the indicative can also be used to express propositions entertained as descriptions of states of affairs in non-actual possible worlds. Other authors (Clark 1991; Rouchota 1994b, c) have taken this route (though not necessarily in relation to fiction), but, as will be seen, it is not without its problems.

In each of these cases, considerations of relevance lead the hearer to determine who the speaker intends the entertainer of the description to be. While linguistic information guides this process, the hearer may be justified in going further than this would indicate. For example, chapter 2 showed how the proposition expressed by the subordinate clause in (7) might be an explicature of the utterance. In such a case, the speaker would be indicating that this proposition was entertained as a description of the actual world not only by Chomsky, but also by the speaker herself.

(7)   Chomsky says that the language faculty is innate

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[3] Irony has been analysed in Relevance Theory as being a case of the echoic use of language (Sperber 1984; Sperber & Wilson 1981; 1986/1995: 237-243).

And in the case of the imperative, the fact that to whom the state of affairs described is desirable is not specified allows Wilson & Sperber to explain how this form can be used not only to represent the speaker's desire, as in commands and requests, but also to represent a desire attributed to the hearer, as in advice or permission. An example of this is B's response in (8) (from Wilson & Sperber 1988a: 80):

(8) A: Excuse me, I want to get to the station
     B: Take a number 3 bus

It is no desire/intention of B's that A take a number 3 bus, but A has indicated that a course of action resulting in her arrival at the station is desirable to her. B thus uses a form specified for describing potential and desirable states of affairs in his response, with the issue of to whom the state of affairs described is desirable being resolved by considerations of relevance. Harnish (1994: 448) questions whether B's response in (8) is in fact an imperative, asking whether it might be a case of discourse ellipsis, so that it is an infinitival continuation of an implicit 'to get to the station I advise you to...'. That this is not the case can be seen by considering what form would be used if negative advice were given. If this were a case of ellipsis, one would expect the negation to be indicated by 'not', rather than 'don't', but as (8)' shows, this is not the case:[4]

(8)' B: Don't take a number 3 bus; that goes all round the houses. Take a 73 instead.

The indeterminacy in interrogatives determines not to whom a state of affairs is desirable, but to whom a thought is desirable. The challenge for any account of the semantics of interrogative mood is to explain the range of cases where this mood is employed for means other than the soliciting of information. Examples of such cases

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[4] The negation test for imperatives is discussed by Clark (1991: chapter 2).

include rhetorical questions such as (9), exam questions and guess questions such as (10) (Wilson & Sperber 1988a: 92):

(9)   What was your New Year's resolution?

(10) Which hand is it in?

If (9) were uttered to someone who had just lit up a cigarette despite having resolved to give up smoking, then the speaker would most likely know the answer to the question and it could not, therefore, be analysed as a request for information. Exam questions are not normally requests for information either, as those asking the questions usually know more than those being asked. And in guess questions such as (10), uttered when the speaker has a sweet in one of her hands and asks the hearer to guess which one, the speaker already knows the answer but the hearer can only guess. Thus, on the one hand, the speaker cannot be said to be asking for information, and, on the other, the hearer cannot be expected to give it!

Wilson & Sperber argue that analysing interrogatives as encoding that the proposition expressed is an interpretation of a desirable thought can account for these and their 'standard' information-requesting uses. A representation can be a representation of either a state of affairs or another representation. When a representation represents a state of affairs, Sperber & Wilson term this a descriptive relationship; when it represents another representation, the relationship is interpretive.[5] Interpretive representation depends not on truth but on resemblance between the two representations, with the degree of resemblance being determined by the number of implications they share. Answers interpretively resemble questions. Uttering an interrogative indicates that a thought which interpretively resembles the proposition expressed by the utterance is desirable because it would be relevant. As with imperatives, to whom the desirability pertains is determined

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[5] This term has already been explained in chapter 1 in relation to irony in section 3.4.3.

pragmatically: if the speaker's aim is to get information, the thought is desirable (hence relevant) to him; but in guess questions such as (10), for example, the thought is desirable to the hearer. As the topic of this thesis is assertion, however, from now on the emphasis will mainly be on descriptive uses of language, and the interrogative form will generally be ignored.

To entertain a proposition as a description of a state of affairs in a particular type of world is to have an attitude towards that proposition. Wilson & Sperber argue that the basic attitude of belief and the varieties of desire can be analysed according to whether the type of world the propositional form is entertained as a description of is actual, potential or merely possible (i.e. with no commitment to whether it is actual). Analysed this way, belief is the holding of a thought as a description of the actual world. Desirable worlds can be either potential (in the sense that they are compatible with all the individual's assumptions about the actual world) or not. This distinction is reflected in the distinction between hoping and wishing: someone can hope for potentialities but not impossibilities, while wishes are not constrained by what is believed to be possible.

Wilson & Sperber make use of this connection between possible-world semantics and propositional attitude to relate mood and speech-act. Utterances of main-clause indicatives are analysed as a cases of 'saying that', and imperatives as cases as of 'telling to'. However, these are technical terms which are not to be equated with either the Gricean notion of saying or the common-sense notion, the former entailing speaker meaning and the latter often relating to implicitly communicated meaning (Carston 2002b: 209-210, fn. 16). 'Saying that' here means communicating that the proposition expressed is entertained as a description of an actual state of affairs (Sperber & Wilson 1986/1995: 247) and uttering a main-clause indicative therefore communicates the higher-order explicature (11):

(11)   The speaker is saying that P
(12)   The speaker is telling the hearer to P

Because the semantics of the indicative, on this story, does not specify who is entertaining the proposition expressed as a description of the actual world, 'saying that P' does not necessarily commit the speaker to P. This only follows if considerations of relevance lead the hearer to attribute the attitude expressed to the speaker (rather than taking the speaker to be attributing the belief to someone else, for instance). Similarly, an imperative results in the higher-order explicature (12), but only in imperatival force if the indeterminacy inherent in the semantics is resolved by attributing to the speaker the desire that the hearer perform the action described by the utterance (as opposed to taking the speaker to be attributing the desire to the hearer, for instance). Thus, 'saying that' and 'telling to' are generic speech-acts and are not synonymous with 'asserting' and 'commanding'. Under appropriate conditions, a hearer may go on to derive a more specific speech-act description, so that a case of 'saying that' could be described by the hearer as a case of 'warning that', for instance, or a case of 'telling to' as a case of 'commanding the hearer to', for example. However, the generic speech acts differ from the more fine-tuned variety in that they are *necessarily* communicated by the utterance of the forms associated with them.

Sperber & Wilson (1983: chapter 7) argue that not all speech-acts given in the traditional taxonomies are communicated. For these authors, a communicated speech act is one whose interpretation necessarily involves the hearer deriving a higher-order explicature which describes the speaker's behaviour in speech-act terms. These are of two types: institutional and non-institutional. Institutional communicated speech-acts include bidding at bridge and promising. They are describable only by reference to an institution, such as the game of bridge or certain moral and religious beliefs,[6] and thus, argue Sperber & Wilson, best studied as part

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[6] Promising, despite the large amount of attention paid to it by speech-act theorists, is convincingly argued by Sperber & Wilson not to be a universal practice but one which only exists given certain moral and legal frameworks (Sperber & Wilson 1983: chapter 7).

of those institutions rather than as part of a study of linguistic communication (though, of course, any adequate study of the institutions will need to make use of a theory of communication). Non-institutional communicated speech acts form a highly restricted set consisting in 'saying that', 'telling to' and 'asking'.

While other non-institutional acts, such as 'warning' or 'requesting' may be communicated, it is not necessary that they are, and hence they are not classified as communicated speech acts. To see that they need not be communicated, note that what is necessary for a warning to be successful is that the hearer realise that the speaker's utterance communicates a set of propositions describing states of affairs detrimental to the hearer. Thus, (13)a would necessarily communicate (13)b, and, given appropriate contextual considerations, could also communicate (13)c and d without communicating (13)e. Indeed, non-communicated, non-institutional speech acts such as 'warning' are better seen as post-interpretation descriptions of behaviour rather than essential features of the interpretation process. This is not to deny, though, that these descriptions can play a role in communication when the speaker's intentions as to how she intends her utterance to achieve relevance are unclear. It is in such cases that (14) would be an appropriate response to (13)a.

(13) a.　This knife's sharp

　　　b.　The speaker has said that the knife is sharp

　　　c.　The speaker believes that the knife is sharp

　　　d.　The knife may cut me if I don't take care

　　　e.　The speaker is warning me that the knife is sharp

(14)　Is that a warning or a threat?

In sum, then, while mood is argued by Wilson & Sperber to encode information relating to speech-act potential, this is at a generic level of description. They explain the role played by the indicative mood in utterance interpretation as follows: the indicative encodes the information that the proposition expressed by an utterance of the indicative clause is/'may be' entertained as a description of the actual world,

with the issue of who holds this attitude towards the proposition being resolved pragmatically in accordance with considerations of relevance. The mood of the main clause results in a speech-act description of that utterance, the meaning of this description being as under-specified as the information encoded by the clause. As regards the indicative, this results in the utterance communicating that it is an instance of 'saying that', and the hearer's task is to infer to whom is to be attributed the view that the proposition expressed is a description of the actual world. If it is to the speaker, and it is manifest that the speaker intends this proposition expressed to be an explicature of the utterance, then the utterance is an ordinary assertion.

A critical examination of this account will follow soon, paying particular attention to the hedging over the semantics of the indicative (the troublesome 'may'), but also considering these claims in the light of the last chapter's distinction between natural-language and truth-conditional semantics, and the two theoretical roles played by the latter. First, however, it is instructive to consider briefly the strategy, employed by Sperber & Wilson, of seeking a core semantics for all instances of a given mood. This has certain similarities with the speech-act approach taken by Harnish (1994), and comparing the two will be a useful way both of highlighting the differences between Wilson & Sperber's account and a speech-act approach, and of showing the limitations of the latter.

Harnish argues that the semantics of any given mood is exhausted by characterising three elements of information: the illocutionary force potential of the utterance (IFP), direction of fit, and the conditions of satisfaction (1994: 431). The IFP of an utterance consists in the range of acts a form can be used to perform literally and directly, where literalness is defined in terms of a match between speaker meaning and sentence meaning: an individual speaks literally if she means at least what she says. (Clearly this presupposes a notion of 'what is said' as distinct from speaker meaning, an issue to be discussed shortly.) An illocutionary act is performed directly if done without relying on the performance of another act. 'Direction of fit' is a term familiar from chapter 2 (word-to-world in the case of assertions, world-to-word in

the case of directives), while 'conditions of satisfaction' relates to the conditions under which an utterance is satisfied: being true and the state of affairs described being brought about by the hearer as a result of the utterance, are the respective conditions of satisfaction for assertoric and imperatival utterances.

What is notable about Harnish's speech-act account is that it does not postulate a direct force-form correspondence. Rather, the link between form and force is mediated by an expressed attitude associated with each of the moods. Thus, declarative word order is associated with the expressed attitude 'the speaker believes that P', and imperative syntax with 'the speaker desires/intends that the hearer make it the case that P'. This then allows, on Harnish's account, the hearer to employ other contextual information to infer precisely which act the speaker is performing, this process being constrained by the need to identify an act which has the expressed attitude as a necessary condition in its analysis. So the IFP of a mood is best seen, on Harnish's account, as a constraint on which acts can be performed directly by that act, rather than as a case of one to one form-force correspondence.

It is in the role played by propositional attitude that Harnish's account most resembles Sperber & Wilson's. Both see mood as primarily relating to the expression of attitude, which then becomes the basis of inferring communicative intentions. However, Harnish's account differs from Sperber & Wilson's in a number of ways. Firstly, the attitude expressed by the form is always expressed by the speaker, whereas Sperber & Wilson point out that in many cases, free-indirect reported speech being an example, speakers do not express their own attitudes but those of others. Secondly, the analysis limits itself to accounting for the relationship between mood and force and has nothing to say about the contribution made by mood at the level of the embedded clause. Sperber & Wilson, recall, have it that mood makes the same contribution at both main clause and embedded clause level, but that the effect is distinct at each: only at sentence level does it contribute towards force. Thirdly, Harnish does not seek to account for all instances of the use of a particular mood, only those which are 'literal and direct', where this is defined in

terms of a match between sentence meaning and the speaker's intended meaning. This in itself is problematic as it is doubtful whether a propositional level of meaning independent of speaker intention can be identified, making the notion of literal meaning a highly dubious one (see Carston 2002b, especially chapter 2, for extensive discussion of this issue).

Thus, while both Harnish and Wilson & Sperber employ propositional attitude as a mediator between form and force in an attempt to account for the contribution of mood, Wilson & Sperber's approach is more successful in that it does not rely on notions of literality, aims to explain effects at the embedded-clause level as well as at utterance level and is able to account for cases where the attitude expressed is not the speaker's. However, this is not so say that their account is completely unproblematic, as will be seen below.

2.2 Problems with the standard approach

The first issue relates to just what semantics is being postulated for the declarative/indicative and how this differs from that postulated for the infinitive. Here are some quotes that give an indication of the problem:

> Let us define *saying that* P, where P is the propositional form of the utterance, as communicating that the thought interpreted by P is entertained as a description of an actual state of affairs...When you say that P, you communicate that you are saying that P. You may communicate this by means of linguistic indicators such as indicative mood, declarative word order and so on (Sperber & Wilson 1986/1995: 247-248)

> A declarative with propositional content P communicates that P represents a thought entertained as a description of an actual or possible state of affairs
> An infinitive clause with propositional content P communicates that the thought represented by P describes a possible state of affairs (i.e. without encoding anything about whether that state of affairs is potential or desirable) (Clark 1991: 47 &141)

> ...*na*-clauses [i.e. Modern Greek subjunctive (-like) clauses] encode the information that the proposition is entertained as a description of a state of affairs in a possible world, whereas

indicative clauses encode the information that the proposition expressed is entertained as a description of a state of affairs in the base world (Rouchota 1994b: 69)[7]

Declarative sentences (or clauses) may represent a state of affairs as actual.
Infinitival sentences (or clauses) represent a state of affairs as possible (Wilson 1998-9a: 8)

Declarative indicators, such as the indicative mood [...], encode the information that their clause represents an actual or possible state of affairs, or, equivalently, that their clause comes with a belief attitude attached; this applies to all clauses, main or embedded (Carston 2002b: 209-210, fn. 216)

These statements demonstrate that there is a lack of unanimity, and perhaps not a little uncertainty, about what the indicative encodes and how it is distinguished from non-indicatives. Does the indicative encode that the proposition expressed is entertained as a description of the actual world, or as a description of the actual or some other possible world? If the former, how are its non-assertoric uses to be explained? If the latter, how is it to be distinguished from infinitives and subjunctives?

That the indicative can be used to describe states of affairs which no-one entertains as actual is clear. As was noted above, much fiction doesn't even pretend to be a description of the actual world. Moreover, indicatives are found in the antecedents of conditionals.

It is also clear that infinitives can be used to represent actual states of affairs, as (15)a, shows:

(15) a.   I believe you to be the best person for the job
      b.   I believe that you are the best person for the job

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[7] The base world is the world the speaker is in, and is by default the actual world (Rouchota 1994b: 69).

But if this is the case then the standard account has no means of distinguishing the indicative from the infinitive: both can be used to represent the actual world, and both can be used to represent non-actual possible worlds. Moreover, (15)a appears to result in no extra effect. This is in contrast to what would be predicted by Rouchota's claim that the indicative is linked by default to the base (actual) world. On this claim, an utterance such as (15)b would be easier to process than (15)a and the latter should therefore warrant an expectation of greater effects. That it does not suggests that recourse to the notion of a base world does little to distinguish indicatives from subjunctives and infinitives. Moreover, as will be seen in chapter 4, the subjunctive in Spanish can be used to indicate that a representation of the actual world is of low information value, whereas Rouchota's account would predict that such usage should indicate high information value in order to justify, though the derivation of greater effects, the use of a non-default form for representing the base world.

One possible remedy to the problems raised by the use of non-indicatives to represent the actual world would be to argue that while embedded infinitives can represent the actual world, a non-embedded infinitival utterance can only describe non-actual worlds, as (16) and (17) illustrate. In other words, one might argue that what is unique about main-clause indicatives is that these are the only main-clause forms that are able to be used to represent the actual world.

(16) To spend all one's life in a room. Imagine.
(17) To meet the president of the United States. Hmm.[8]

The problem with this solution, though, would be, the loss of one of the advantages of the relevance-theoretic account: that the same semantics is postulated for both the

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[8] These examples are from Wilson & Sperber (1988a: 84).

embedded and unembedded use of a form. Nevertheless, there is certainly something to the observation that, at main clause level, only indicatives can be used to represent the actual world, and the proposals developed in section 2.3 will aim to account for this.

Another issue relating to the standard relevance-theoretic account is whether attempts to characterise the moods in terms of the types of worlds the thoughts that they express represent is, in the terms discussed in the previous chapter, a natural-language-semantic characterisation or a truth-conditional-semantic characterisation. Recall that the former of these relates to the information encoded by the linguistic form in terms of the effect it has on human information-processing mechanisms, while the latter relates to the truth-conditions of the utterance's interpretation. Characterising moods in terms of the types of worlds that the propositions they express can represent is a generalisation about the interpretations that utterances of these forms receive. It does not follow, though, that this information is what is linguistically encoded by the mood. What may be encoded, rather, is a cognitive constraint on the role the proposition expressed is to play in the processing of the utterance. Indeed, Wilson & Sperber (1993) argue that mood is a case of procedural, rather than conceptual, encoding, in that it contributes to meaning by constraining some aspect of the interpretation process rather than feeding it with conceptual representations. However, they express the nature of the constraints imposed by mood in terms of the semantic features of their interpretations (i.e. as a representation of a particular type of world), rather than in the effects that it has on the processing system which lead to the distinct interpretations. The new account offered in the next section differs from the standard relevance-theoretic account in that it seeks to explain the representational effects of mood in terms of the effect it has on how the proposition expressed by a clause with a given mood is processed by that system. As such, it is able to handle both those cases where mood has truth-conditional effects and those cases where it does not.

2.3   A new relevance-theoretic account of the indicative

Before developing the new account, it is useful to draw together and re-cap on the data it needs to account for:

a) **Assertoric force**: the account developed must explain the role of the indicative in the interpretation of what Sperber & Wilson term 'ordinary assertions', i.e. utterances which both commit the speaker to the truth of the proposition expressed and seek to inform the hearer of that proposition.

b) **Non-ordinary assertions**: in the same way, it must be able to explain what happens in non-ordinary assertions, when there is speaker commitment but no intention to inform the hearer of the proposition expressed, such as when a religious belief is defiantly asserted under persecution.

c) **Non-assertoric main-clause uses**: as well as cases where there is no informative intention, there are also cases of main-clause indicative use where there is no commitment to truth, fiction being one type of example.

d) **Embedded clauses and assertion**: there are cases, as has been seen, when an embedded clause conveys a key point of the speaker's message, parentheticals being one type of example.

e) **Unasserted embedded indicatives without assertoric force**: the account developed must be able to specify the conditions under which embedded indicatives do not convey assertoric force, such as when they occur as the constituent of a negative first-person belief report ('I don't believe that P').

The account that will be developed in this section to explain these data can be expressed quite succinctly:

Claim: indicative clauses are unique in that they present the proposition expressed as potentially relevant in its own right in an accessible context.

Consequence: because they have this feature, indicatives are also unique in having the capacity to present the proposition expressed by an indicative

159

clause as relevant in its own right to an individual. This is what marks them for assertoric use.

What will take time is explaining and justifying the claim, showing how the consequence follows, and demonstrating how this analysis explains the range of uses identified in a) to e). This will be done as follows: first the distinction between a proposition being relevant *in a context* and being relevant *in its own right* in that context will be discussed. Then, drawing on the distinction between factual and non-factual consistency-aiming mental representations introduced in the last chapter, two types of contexts will be distinguished: factual and non-factual. Because relevance in a factual context is related to relevance to an individual, it will then be possible to explain the link between the indicative mood and assertoric force in terms of the relevance of a proposition in its own right *to an individual*.

2.3.1 Relevance vs. a proposition's relevance in its own right

The claim being made is that the indicative is unique in presenting the proposition expressed as potentially relevant in its own right in an accessible context. It is therefore necessary to be clear about the distinction between a proposition which is relevant and one which is relevant in its own right. Consider the argument in (18):

(18) If Peter tells Mary that her dress looks nice, she'll dance with him

<u>Peter is telling Mary that her dress looks nice</u>

Mary will dance with him

Given an initial context consisting of only the first premise in (18), the addition of the second premise results in the conclusion that Mary will dance with Peter. The proposition 'Peter is telling Mary her dress looks nice' is thus relevant in this (very simple) context. This second premise, however, contains two propositions: 'Peter is telling Mary that her dress looks nice' and 'Mary's dress looks nice'. Only the first of these is relevant in its own right, for only this proposition warrants the derivation of effects. However, it would be wrong to say that the embedded proposition was

*ir*relevant, as without it the embedding proposition would have no effect. It makes a contribution to relevance, therefore, but not in its own right.

The distinction between a proposition contributing directly to relevance in its own right and making an indirect contribution is central to an understanding of the different roles propositions can play in linguistic communication. Utterances communicate a range of propositions, some of which may play a direct role in the derivation of contextual effects, and others of which may not. Consider (19) and (20) (capitals mark focal stress):

(19) a.   JOHN gave Peter a lift

b.   Someone gave Peter a lift

(20) a.   Stand up

b.   The speaker wants the hearer to sand up

(19)b is implied by (19)a, but in a context where (19)b is mutually manifest prior to the utterance (i.e. one which would justify this stress pattern), it is unlikely to lead to significant cognitive gains simply by being made more manifest. However, it would contribute to the relevance of the utterance as a whole if it made more accessible a context in which the proposition expressed by (19)a could lead to positive cognitive effects. For example, assume it was mutually manifest that the person who gave Peter a lift probably murdered him. Making accessible the assumption that someone gave Peter a lift would also make this assumption more manifest and facilitate the derivation of the implication that John probably killed Peter. Thus, in the utterance of (19)a, two propositions play very different roles: (19)b activates a context in which the proposition expressed by (19)a is relevant. Both propositions contribute to the overall relevance of the utterance, but only (19)a has contextual effects of its own. It can therefore be said that the proposition expressed by (19)a is relevant *in its*

own right, while (19)b is not, even though it contributes to the overall relevance of the utterance.[9]

But (19)b is not a proposition explicitly expressed by ·the utterance. Perhaps, therefore, it could be argued that all explicitly expressed propositions are relevant in their own right, not merely those expressed by indicatives.[10] That this is not the case can be seen by considering (20)a. As Carston (2002b: 120) points out, the proposition expressed by (20)a (that the hearer stand up) makes no direct contribution to the relevance of the utterance. Rather, relevance is achieved by the communication of a higher-order explicature such as (20)b. Like the implicit proposition (19)b, then, the proposition explicitly expressed by an utterance of (20)a makes an indirect contribution to the relevance of the utterance. It is not relevant in its own right and it is therefore not the case that explicitly expressed propositions are necessarily relevant in their own right.

2.3.2 Factual vs. non-factual contexts

The above discussion of relevance in its own right jumped rather quickly from relevance in a simple, formal context to the relevance of an utterance in the more complex case of utterance interpretation. Looking more closely at the types of context involved in utterance interpretation will make it possible to see how the two are related.

Chapter 2, section 4.2, showed that consistency-aiming mentally representations can be categorised by considering whether they aim at truth or not, and whether they are embedded or not. Firstly there are factual assumptions, which are assumptions that

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[9] For a relevance-theoretic account of contrastive stress, in which the notion of relevance in its own right is employed, see Wilson & Sperber (1979) and Sperber & Wilson (1986/1995: 202-217).

[10] Recall that being explicitly expressed is not the same as being an explicature: to be an explicature a proposition must be both explicitly expressed *and* communicated (Carston 2002b: 117; Sperber & Wilson 1986/1995: 182-183).

the system treats as true by virtue of their unembedded format. These constitute the individual's unreflective representation of the world and rely on consistency as a means of achieving and maintaining accuracy. Other propositional forms embedded in factual assumptions either aim at consistency or do not, and those that do either aim at truth or do not. Those which aim at consistency include representations of the actual world attributed to others (i.e. attributed beliefs), representations of the content of fictions, and reflective representations of the actual world, such as conjecture. But while all three of these aim at consistency, only conjecture aims at truth.

A context formed of non-consistency aiming propositions would offer no means of acquiring information about a world, due to the fact that adding further assumptions to such a context does not reduce the set of worlds compatible with that set. Thus, contexts accessible to the hearer must be formed of either factual assumptions, embedded assumptions aiming at both consistency and truth, or embedded assumptions aiming only at consistency. (And, of course, a context must be made up exclusively of one of these types, not a mixture of them.) A context made up of a subset of the factual assumptions manifest to an individual can be termed 'a factual context' and one made up of embedded propositional forms an 'embedded context'. If necessary, it is then also possible to distinguish between truth-aiming and non-truth aiming embedded contexts, though this distinction will not be made as a matter of course.

2.3.3   Context types and contributions to utterance-relevance

In determining the role played in the interpretation of an utterance by a communicated proposition, it is necessary to consider both the type of effect that proposition has on a context and the type of context it has an effect on. Indeed, both considerations are crucial to explaining the conditions under which an utterance will carry assertoric force. Recall from chapter 2 that an utterance communicates many more propositions than the proposition expressed, and that many utterances do not in

fact communicate the proposition expressed. The examples given in chapter 2 to illustrate this point were the following:

(21) a. The train left five minutes ago

b. The speaker is saying that the train left five minutes ago

c. The speaker believes that the train left five minutes ago

d. We have missed the train

(22) a. Leave the book on my desk

b. The speaker is telling me to leave the book on his desk

c. The speaker wants me to put his book on my desk

An assertion such as (21) might communicate all of (21) a to d, but an imperative cannot communicate the proposition it expresses, only its higher-order explicatures (and, of course, any implicatures which follow from these).

Any act of ostensive communication will have some effect on a factual context. This is because ostensive stimuli are changes in the audience's perceptible environment, and, if noticed, they will thereby modify the individual's representation of the world. Thus, even if the utterance (21)a is not intended as an ordinary assertion, it will still result in the hearer forming a factual representation expressing the content of the higher-order explicature (21)b. Similarly, if a speaker intends her utterance not as a representation of the actual world, but of, say, a fictional world, the fact that she has made the utterance will be a feature of the actual world and, consequently, as a relevant stimulus, have an effect on a factual context.[11]

What distinguishes ordinary assertions from non-ordinary assertions and non-assertoric utterances is that not only is a description of the ostensive stimulus (i.e.

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[11] Note again here the parallels with Stalnaker's distinction between essential and non-essential effects, as discussed in chapter 2 section 4.3.

that the speaker is engaged in a form of ostensive behaviour, such as saying that or telling to) intended as relevant in a factual context, but so is the proposition expressed. That is to say, in making an assertion, a speaker puts forward the proposition expressed by the utterance as a candidate for adoption by the hearer as a factual assumption: she presents it as relevant in its own right in a factual context. As will be seen below, other uses of the indicative either present the proposition expressed as indirectly relevant in a factual context, as relevant in its own right in an embedded context, or as indirectly relevant in an embedded context. Non-indicatives, on the other hand, can only present the proposition expressed as indirectly relevant in either a factual or an embedded context. Thus, it is the potential of the proposition expressed by an indicative clause to be relevant in its own right that determines that form's assertoric potential, and it is the nature of the context in which relevance in its own right is to be achieved which determines whether that potential is realised.

Non-ordinary assertions result when the proposition expressed is clearly held as a factual assumption by the speaker, but she manifestly does not utter it with the intention that the hearer adopt it as a factual assumption of his own. This may be either because the hearer already holds this assumption factually, or because it is clear that he would not accept it as a factual assumption. (23)a is an example of the first type of case. This utterance communicates the propositions expressed by (23)b to d, but not, crucially, that expressed by (23)a itself.

(23)   a.   You've had you hair cut
      `   b.   The speaker has noticed that the hearer has had his hair cut
          c.   The speaker believes that the hearer has had his hair cut
          d.   The speaker wants the hearer to know that the speaker has noticed that the hearer has had his hair cut

The second type of non-ordinary assertion is discussed by Sperber & Wilson (1986/1995: 180-181). These are cases when the speaker intends her utterance to

achieve relevance as an expression of her belief even though it is mutually manifest that the proposition expressed by her utterance will not be accepted by the audience. The speaker expresses that proposition regardless, in order to demonstrate her commitment to it. As mentioned earlier, an example of such a case (though not the one given by Sperber & Wilson) would be a defiant assertion under religious persecution.

Fiction, reported speech, belief attribution and suppositions are all cases in which the indicative is used to present the proposition expressed as relevant in its own right in an embedded context. In such cases, as noted above, although the proposition is relevant in an embedded context, the utterance itself is relevant in a factual context. A belief ascription may, of course, be made either directly or indirectly, as in (24), where under the right contextual conditions, either a or b could be used to attribute to Peter the belief that the tooth fairy took his tooth. The difference between the two is that (24)a, assuming it is an ordinary assertion, explicitly expresses both the proposition that is relevant in a factual context and the one which is relevant in an embedded context; (24)b, by contrast, explicitly expresses only the proposition relevant in an embedded context.

(24) a.   Peter believes the tooth fairy took his tooth
      b.   The tooth fairy took Peter's tooth

This is not to say, though, that embedded indicatives always express propositions relevant in one context or another.

(25) Peter doesn't believe that Santa Claus exists anymore
(26) I'm glad that you're here

In (25) the subordinate clause, though indicative, is clearly not presented as relevant in a context made up of assumptions representing Peter's view of the world (rather, its negation is), while factives such as (26) are generally only acceptable if the

proposition expressed by the indicative subordinate clause is already part of the common ground, and hence cannot contribute directly to the relevance of the utterance. Propositions such as these contribute to the relevance of an utterance indirectly, not in their own right.

The present analysis can cope with examples such as (25) and (26) because it says that the indicative marks a proposition as *potentially* relevant in its own right. These are cases where the potentiality is not fulfilled. This may not seem to be the most satisfactory response, since it appears to somewhat weaken the claim made. In fact, however, data such as (25) and (26) actually *strengthen* the claim, as where the semantics of the embedd*ing* clause precludes the proposition expressed by the embedd*ed* clause from being relevant in its own right, languages with a subjunctive mood often use this. Consider the Spanish translations (25)' and (26)':

(25)' Pedro ya no cree que Papá Noel exista

pedro already not believe+3SG that Papá Noel exist+3SG+SUBJ

'Peter doesn't believe that Santa Claus exists anymore'

(26)' Me alegro de que estés aquí

myself please+3SG of that you be+3SG+SUBJ here

'I'm glad that you're here'

The analysis of the Spanish subjunctive in chapter 4 will show that, on the whole, this form cannot be used to present propositions as relevant in their own right. In the few cases where they can be used in this way, there is an effect which is explainable in terms of the speaker indicating that there is at least one accessible context in which the proposition expressed by the subjunctive is not relevant in its own right. Thus, the fact that propositions expressed by non-indicatives are generally precluded from being relevant in their own right means that the potentiality caveat in the (natural-language) semantics proposed for the indicative does not weaken the claim made.

Another possible objection to the claim made here for the indicative is that it fails to explain the presence of a non-indicative in certain first-person belief reports (which are cases of explicit speaker commitment to the truth of the proposition expressed by the object clause). In such cases, the speaker is certainly presenting the proposition expressed by the non-indicative clause as potentially relevant in its own right, it could be argued, because she is presenting it as a representation of the actual world. Consider (15) (repeated below), which was presented above as an example of an embedded infinitive being used to represent the actual world.

(15) I believe you to be the best person for the job

It might be thought that this poses a serious problem for the account being developed here, as a non-indicative is being used to present a proposition that could at least be relevant in its own right in an embedded context (i.e. the hearer's representation of the speaker's world-view), and even in a factual context. However, because the present account makes claims about how mood affects processing, as opposed to what it reveals about propositional attitude, it is possible to deal with this in a straightforward manner. (15) is truth-conditionally equivalent to (27), both expressing the complex proposition (28):

(27) I believe you are the best person for the job
(28) <believe, speaker <best person for the job, hearer> >

A belief report can achieve relevance in a number ways, none of which is exclusive. First, it can provide a reason for the hearer to adopt the object of the belief report as a belief of his own. If the speaker is someone to be trusted on the issue, then that fact that she believes that P is a good reason for the hearer to believe that P. If this is the reason that the speaker expresses her belief, then she is presenting it as relevant in its own right in a factual context and should choose an indicative clause to express that proposition. Second, the relevance of the utterance may rely heavily on the fact that the object of the belief report updates the hearer's representation of the speaker's

world view. A debate can be imagined in which the speaker says, 'I don't believe P; I believe Q', with no intention that the hearer adopt Q as a belief of his own: she simply wants him to have her views clear. Again, an indicative complement would be expected, as the proposition is presented as relevant in its own right in an embedded context (i.e. the hearer's representation of the speaker's representation of the world). Third, the speaker might be reporting belief in order to explain behaviour. In such a case, the most relevant proposition would be not the embedded one but the complex proposition expressed by the whole belief report. This is how belief ascriptions are used when premises concerning an individual's beliefs and wants are employed to predict or explain her actions: the standard folk-psychological schema for working out intentions is 'If someone wants Q and believes P will lead to Q, then, all things being equal, that person will try to bring about P'. In such a schema, it is not P and Q that are doing the work, but the forms in which they are embedded.

If the primary relevance of a belief report is as an explanation of behaviour, processing effort will be reduced if the object is marked as not relevant in its own right, as the system will not attempt to process the proposition expressed by the embedded indicative but only that expressed by the whole sentence. Thus, the current account makes an interesting prediction about the circumstances under which the form exemplified by (15) will be preferred over that exemplified by (27): when the main relevance of the utterance is as an explanation of behaviour or intentions.

One author who has compared corpus instances of 'believe that X is' and 'believe X to be' is Noël (1997). He notes that any clear difference in meaning is difficult to find, and suggests that discourse features such as the given-ness and newness of information are the crucial element. However, it is interesting to note that his data does suggest that a re-analysis along the lines suggested here might be fruitful. One prediction would be that there would be a strong tendency for infinitive complements to be used to explain behaviour, the third of the uses of belief reports highlighted above. The two examples from Noël listed below (his (10) and (17)

169

respectively) are cases where this does seem to hold. In (29) MI5's beliefs are given as the reason for its misguided, according to the author, actions, while in (30) the beliefs of each village are given as a reason for their symbolic markings. Of course, though, a thorough analysis of the data is needed before firm conclusions can be drawn. Moreover, the two views may be complementary rather than incompatible.

(29) The reason for MI5's inefficiency is that it wastes far too much time and resources chasing after the wrong sort of people who it believes to be subversive, while real enemies of the state are able to go on spying undetected for decades.

(30) Each village believes itself to be totally different from any other and often marks itself in a variety of symbolic ways from those which surround it.

Another prediction would be that indicative complements should be preferred when the proposition expressed by the embedded clause is relevant in its own right in either a factual or an embedded context. Of course, though, a thorough analysis of the data is needed before firm conclusions can be drawn. Moreover, this view and Noël's given- vs. new-information account may be complementary rather than incompatible, especially when it is considered that the distinction between relevance and relevance in its own right can be employed to explain information-structure effects, as will be shown in the next chapter,

As noted above, explicit belief and speech attributions might be used because the speaker is presenting the proposition expressed as relevant in its own right in a factual context, even though the indicative clause is embedded. This raises two issues: are such cases assertions and how does the hearer decide in which context to process an embedded proposition? Consider (31) and (32):

(31) Mary says a pixie stole her doll

(32) The guard says the train leaves from platform 3

The problem is how to explain why an utterance of (31) would lead to the proposition expressed by the subordinate clause having an effect on an embedded context representing Mary's belief world, while (32) would result in the proposition expressed by the subordinate clause being processed in a factual context. The problem can be solved in the following way. First, a dumb processing system is posited, one which, on coming across a proposition expressed by an indicative clause, automatically processes that proposition in the most accessible context. Given such a system, the task is then to explain how it is that, on some occasions, embedded indicatives have many of the properties associated with main-clause assertoric uses, while on others they do not.

An adult hearer of (31) is unlikely to start a search for a mischievous pixie on the basis of this utterance, but the same hearer may, as a result of hearing (32), head towards platform 3 to catch a train. The different effects the subordinate clauses have on behaviour clearly result from a combination of the content of the subordinate clause and the relationship to that content of the person to whom it is attributed. The proposition expressed by the subordinate clause in (31) will be relevant in an embedded context representing Mary's world view, but not in a factual context. The words 'Mary' and 'pixie' will make a factual context less accessible, as they will activate encyclopaedic information about Mary (that she is a highly imaginative five-year old) and about the mythical nature of pixies. By contrast, in a situation in which the hearer of (32) is about to embark on a train journey, the word 'guard' will activate encyclopaedic information to the effect that guards tend to be reliable sources of information about train departures. Given the hearer's aim of catching the correct train, a factual context in which the proposition expressed by the subordinate clause is relevant will be highly accessible and this proposition will therefore achieve relevance in its own right in that context. It is potentially also relevant in an embedded context representing the guard's world view, but as it is of little benefit to the hearer to develop a representation of this, there is no need for it to be processed in this way. Note that the speaker takes some responsibility for the effect of the subordinate clause in (32) even though he has not

baldly asserted its content: she can foresee the effect it will have on the hearer, and if she knows of any reason why the belief resulting from the utterance (that the train leaves from platform 3) is an unreasonable one given its source, she should make this clear. While one might baulk at saying that the speaker of (32) has asserted that the train leaves from platform 3, it does have features in common with assertion in that the speaker is both committed to the (probable) truth of that proposition and seeks to inform the hearer of it. It differs from a clear-cut case of assertion in that the speaker does not take ultimate responsibility for the content of the subordinate clause in the way that she does for the content of the main clause (recall Williamson's 1996 discussion of the centrality of responsibility to assertion, as discussed in chapter 1, section 5).

2.3.4   Assertion and relevance to an individual

It was noted at the start of section 2.3.3 that while all utterances will have an effect on a factual context, an ordinary assertion is distinguished by the fact that the proposition expressed by the utterance also has an effect on a factual context in its own right. Recall that a factual context is a context formed of assumptions that the individual holds unreflectively, and which are treated as true by virtue of their unembedded format. Being formed from assumptions which constitute the individual's representation of the world, such a context aims at truth: the effects sought are not merely *contextual* effects but *positive cognitive* effects. In other words, in order to be relevant in such a context, a proposition must be not merely relevant in its own right in that context, but *relevant to the individual in its own right*. Ordinary assertions are thus cases in which the proposition expressed is presented as relevant to the hearer in its own right. And the performance of assertions is restricted to the indicative because only a proposition expressed by this form is capable of having contextual effects – and therefore cognitive effects – in its own right.

The importance of this point cannot be overstated. When asking a question using an interrogative form or giving a command using an imperative, the speaker is giving

the hearer direct evidence of the message she wishes to convey: the fact that she expresses a proposition in that form is evidence that she has a certain attitude towards it. The effect on the hearer's representation of the world is, therefore, the result of direct perception of a feature of the world. In the case of an assertion, on the other hand, the effect on his representation of the world is derived directly from the proposition expressed without any direct experience of the state of affairs that the asserted proposition represents.[12] To be sure, it is the fact that the speaker has expressed this proposition with an indicative form under appropriate conditions which warrants the speaker adopting the proposition expressed as a factual assumption. However, there is no direct link between the speaker's behaviour and the resulting modification in the hearer's representation of the world, as there is when a question is asked or a command given. This is clearly why questions of responsibility and trust are so closely tied to assertion: when a speaker asks a question or gives a command, the question of trust does not arise because the performance of the act is itself the message; when an assertion is made, by contrast, the hearer is expected to modify his representation of the world in the absence of directly perceived evidence. In other words, he is expected to treat as directly relevant to him not only the speaker's behaviour, but also the proposition she expresses.

Analysing assertion in terms of relevance to an individual makes it clear why, for many, assertion is best seen a form of perception by proxy. Dummett puts it like this: "we learn to react to the statements of others in the same way that we react to various observed features in the environment" (1981: 355). In a similar vein, Williamson (1996) and García-Carpintero (2004), as was noted earlier, suggest that assertions are specified for the communication of knowledge, while Millikan (1984; 2002) claims that linguistic communication is a form of perception and that the

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[12] Cf. Barker's claim that while an assertion A represents a speaker-independent state of affairs, a question or command expressing the same proposition as A represents the speaker's desire about a proto-assertion (2004: 83).

evolutionary reason the indicative mood exists is that it has been successful in creating true beliefs in the minds of listeners. Although the difference between (justified) true belief and knowledge will not be considered here (see Williamson 1995), it is important to relate the view of assertion as a means of knowledge transference to the account being developed here.

Cognitive science has generally adopted a strategy of 'methodological solipsism' (Fodor 1981), on which explanations of the relationship between thought processes and actions should make no reference to anything outside the individual. This is not to deny that content is a result of a mind-world relationship. Rather, it is to claim that the distinct causal effects of different content-bearing mental representations must be explained only in virtue of their formal properties, not their semantic properties. Hence the tendency in much cognitive science to talk in terms of beliefs or assumptions rather than knowledge.[13]

This strategy of methodological solipsism is embraced by Sperber & Wilson (1986/1995: 263). As seen in previous sections, the only means by which an individual can assess the truth of her thoughts is by aiming at consistency. However, this is what might be called an 'engineering' point of view, which can be contrasted with a 'functional' point of view. A functional point of view is adopted when the aim is to say what something's purpose is, an engineering point of view is adopted when the aim is to say how it achieves its goals. A key goal of human cognition, Sperber & Wilson point out, is to produce knowledge (1986/1995: 263). Moreover, the notion of relevance to an individual is dependent on the fulfilling of cognitive goals. Because, therefore, the acquisition of knowledge is a means of fulfilling a cognitive goal, one way that a communicated assumption can be relevant to an individual is by providing him with knowledge.

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[13] Though see Williamson (2002) for arguments against this tendency.

As noted above, ordinary assertion can be analysed as a case of ostensive communication in which the proposition expressed is presented as relevant in its own right *to an individual* (as opposed to merely relevant in an accessible context). This is to say that the proposition expressed is presented as having positive cognitive effects. Given that such effects are analysed in terms of fulfilling cognitive functions and goals, and that the acquisition of knowledge is a key cognitive goal, it is quite compatible with the account developed here to say that assertion has the function of transmitting knowledge, in agreement with the Williamson/García-Carpintero view. However, it is important to stress once more that humans are not concerned with any old knowledge, but knowledge which is relevant to them, for this will lead to a far greater improvement in the individual's representation of the world than the mere acquisition of irrelevant but true information.

2.3.5 Summary of section 2.3

The indicative contributes to utterance interpretation by marking the proposition expressed as potentially relevant in its own right in an accessible context. This allows it, uniquely, to be used to present the proposition expressed as relevant in its own right in a factual context, and hence as relevant in its own right to an individual. This is what specifies the indicative for the performance of assertions. Other uses of the indicative result when the proposition expressed is presented as relevant in its own right in an embedded context, or when it is not presented as relevant in its own right in any context, which context the proposition expressed should be processed in being determined by following a path of least effort, as warranted by the principle of relevance.

This analysis of the indicative and its relationship to assertoric force raises a number of questions. How is does it differ from the standard relevance-theoretic account? Does a proposition being presented as relevant in its own right to an individual necessarily result in assertoric force? What should be said about cases where non-indicative forms are apparently used to perform assertions? What is the role of the

indicative mood in conditional sentences? To what degree does assertion rely on convention? These issues will be discussed in the following sub-sections.

2.4   The new account compared with the standard approach

One clear distinction between this and the standard relevance-theoretic account of the indicative is that there is no direct link posited between mood and propositional attitude. Rather, the link between the indicative mood and the expression of belief results from the claim that this form is unique in being able to present a proposition as relevant in its own right to an individual. A consequence of presenting a proposition as relevant in a factual context is the implication that the speaker believes that proposition to be true, for it could not be relevant to the hearer if it were not.[14] As the speaker is presenting the proposition as true, she automatically licenses the inference, on grounds of rationality, that it is a belief of hers.

The fact that the indicative is not directly related to belief on this account means that there is no need for a conception of belief as a prerequisite for linguistic communication. Rather, mastery of assertion can precede the acquisition of a conception of belief. As such, this account is not open to challenge by Dummett's claim that assertion is conceptually prior to belief.

A major problem with the standard account was that it offered no explanation of why infinitival utterances could not be assertions. The assertoric potential of indicative clauses was explained in part by their ability to serve as representations of the actual world. Infinitives, on the other hand, were characterised as representing possible worlds. However, it was shown above that the fact that first-person belief reports can take an infinitive complement means that 'possible' here cannot be read

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[14] False propositions can, of course, have true implications (Sperber & Wilson 1986/1995: 264-265). The point is, however, that habitually accepting false propositions would lead to a massive decline in the quality of an individual's representation of the world.

as 'non-actual'. If this is the case, then it is not clear why infinitives cannot be used to perform assertions.

The present account avoids this problem because it does not posit a direct link between mood and world-type. Indicatives are capable of representing the actual world (or, indeed, any particular world) because the representations they give rise to are potential candidates for inclusion in a consistency-aiming context. As was shown in chapter 2, the aim of consistency is what makes it possible to use a set of propositional forms as a world representation. Infinitives, on the other hand, can represent a particular world only if embedded in a form, such as a belief report, that specifies that world. (In other words, the representational function of the proposition expressed is signalled by the embedding predicate rather than the logical properties of the form.) Otherwise, because the proposition expressed does not have the potential to be relevant in its own right, and thus form part of a consistency-aiming set of mental representations, an infinitive will be interpreted as representing not a particular world but a feature of a world, in terms of the categorisation of representation types in chapter 2, section 4.2. Because assertions are clearly representations of a particular world (i.e. the actual world), a form which cannot serve this representational function cannot be used assertorically.

This lack of a direct linkage between world-type and linguistic form also means that there is a clear distinction between what is natural-language encoded by the indicative and the truth-conditional interpretations it gives rise to. As such, the encoded meaning postulated is not merely a generalisation based on the observation of interpretations of utterances of this form. Rather, it is a claim about the effect this form has on the cognitive processes underlying utterance interpretation, such that the observed truth-conditional effects result in a predictable manner. There is thus a clear distinction between natural-language semantics as the input to the processing of utterances and truth-conditional semantics as a feature of the interpretations that this processing gives rise to.

One final issue is whether the indicative mood needs to be linked with the relevance-theoretic notion of 'saying that'. This serves two functions in the standard account: it relates the proposition expressed to the attitude of belief and it marks the speaker's language production as a particular kind of ostensive-inferential communication, rather than, say, elocution practice. Although the present account does not need the link between attitude and form to be specified, it is of course necessary to be able to distinguish linguistic communication from other kinds of language use. The question then becomes whether 'saying that' can be used to apply to all linguistic communication regardless of the attitude expressed. This will depend ultimately on whether accounts of the imperative and interrogative can be formulated that do without the notions of 'telling to' and 'asking whether'. These issues are beyond the scope of this thesis.

2.5   Relevance in its own right, to an individual, without assertoric force

It was shown above that the present account predicts that assertoric force is closely related to a proposition being presented as relevant in its own right in a factual context. However, due to the fact that the present account does not relate the indicative directly to truth but has it fall out from the notion of relevance to an individual, there is the theoretical possibility that a proposition could be presented as relevant in its own right in a factual context without the utterance having assertoric force. This would be the case if, although the proposition expressed by the utterance is relevant in its own right to the individual, the utterance is not truth-apt. Recall that truth-aptness depends on three factors: expressing a proposition, being a representation and having word-to-world direction of fit (whereby the state of affairs described by the representation must exist independently of the representation, not, as in the case of complied-with imperatives, as a result of it). If there is a way that the proposition expressed by an utterance can be relevant in its own right in a factual context despite the state of affairs described not obtaining independently of the utterance, then the theoretical possibility of non-assertoric presentations of propositions as relevant in their own right in a factual context becomes an actuality.

One well-known feature of explicit performatives is that they share the syntactic properties of assertoric utterances but are not truth-apt due to the presence of a first-person subject. It was this, as was noted in chapter 1, section 3.2, that led Recanati to argue that the declarative is a force-neutral form. While (33) can be true or false, there is a highly salient reading of (34) on which the speaker is giving an order, and the utterance cannot therefore be described in these terms:

(33) He orders you to leave the room

(34) I order you to leave the room

On the present account, these utterances are analysed in the same way: both seek to achieve relevance by virtue of their implications in a factual context. Performatives do not pose a problem for this analysis because there is no stipulation that main-clause indicatives be used for assertion or for the expression of belief. Explicit performatives are simply cases where, although the proposition expressed is relevant in its own right in a factual context, the state of affairs described does not hold independently of that representation but may come to hold as a result of the utterance. In effect, where a directive act is being performed by an explicit performative, it is simply that what would be the higher-order explicature of an utterance of the corresponding imperative ('Leave the room!' in the case of (34)) is the explicature of the utterance.[15]

Implicit performatives such as those mentioned in chapter 1 (repeated below) are analysable in much the same way as explicit performatives: the proposition

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[15] This does not hold, of course, for other explicit, non-directive performatives such as 'I warn/promise that P', because the speech-act description does not need to be communicated when the act is not performed explicitly, as was discussed in section 2.1 of this chapter. Thus, a non-explicit warning need not communicate a higher-order explicature giving a speech-act description of itself as a warning.

expressed is presented as relevant in its own right in a factual context even though it is not true independent of the utterance.

(35) It's yours. [Said in response to "Your car is great; I wish I had one like it."]

(36) The floor is now open to debate

(37) Prisoners condemned to death will be beheaded

In sum, then, on the account presented in this thesis, all that is encoded by the indicative is the potential relevance in its own right of the proposition expressed. When this relates to relevance in a factual context, the hearer is left to infer whether this relevance is due to the fact that the proposition expressed is true independently of the utterance or is made true by the utterance. Only in the former case will the direction of fit be that required for assertoric force to follow; in the latter, there will be a world-to-word direction of fit, which precludes assertoric force. It is in these cases that a performative reading will result.[16]

2.6   Non-declarative forms and assertion

It was noted in chapter 1 that in arguing against Dummett's claim that assertion is conventionally indicated by the presence of the indicative mood, Davidson points to what appear to be assertoric uses of non-indicative forms, citing (38) and (39) as examples of cases where "assertions may be made by uttering sentences in other moods" (1979/2001: 110):

(38) Did you notice that Joan is wearing her purple hat again?

(39) Notice that Joan is wearing her purple hat again

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[16] Although performatives do not pose a problem for the new relevance-theoretic account of the indicative presented here, they are counted as assertions on the standard relevance-theoretic definition of an ordinary assertion as an utterance which communicates the proposition expressed.

It was also noted in chapter 1 that Davidson's own account is unable to explain how hearer's pick out the content of the 'assertion' being made in such cases, as he denies that there is any link between indicative mood and assertoric force. Thus, on his account, even if the hearer does infer the speaker's intention to assert something, he might well assume that she intends to assert the proposition expressed by the whole clause, rather than that expressed by the embedded indicative.

The present account handles such cases quite easily, as it predicts that the cognitive system will blindly seek to process the proposition expressed by any indicative clause in the most accessible context. In interpreting (38), the hearer will process the proposition expressed by the subordinate clause in the most accessible context, assumed here to be a factual one. If the fact that Joan is wearing her purple hat again is unknown to the hearer, then this proposition will be relevant in that context and will contribute to the relevance of the utterance. If this is not news to the hearer, then the proposition will not be relevant in that context and the utterance will achieve relevance mainly through its higher-order explicatures, such as (40) and (41):

(40) The speaker has noticed that Joan is wearing her purple hat again

(41) The speaker wants to know whether I have noticed that Joan is wearing her purple hat again

Because of the semantics of 'notice' (in that it relates to the acquisition of knowledge rather than its possession) and the fact that the imperative mood (rather than the interrogative) is used, the speaker of (39) must be taken to intend to communicate the embedded proposition. Whether one wants to call the communication of such embedded propositions 'assertions', though, is largely a terminological issue. The relevance-theoretic definition of an ordinary assertion is an utterance which "communicates *its* propositional form" (Sperber & Wilson 1986/1995: 181 emphasis added), implying that to count as an ordinary assertion an utterance must communicate the proposition expressed by the whole utterance, and it would therefore exclude cases such as (38) and (39). However, if one wished, one

could modify the definition so that if any propositional form explicitly expressed by the utterance were communicated then that utterance would count as an assertion. The point is that the relevance-theoretic notion of assertion is not foundational to the theory but derived from foundational notions: the informative intention, explicature and relevance in a factual context. Indeed, the fact that one can debate whether a communicated proposition is asserted indicates that the term is not picking out a natural class but a set of features, any of which may be more central to the concerns of a particular theorist than another. Recall that Geach (1965: 456) wants any proposition to which the speaker is committed to count as an assertion so that the speaker of (42) (originally discussed in chapter 1), on Geach's terms, asserts (46)':

(42)   Peter is under the illusion that he is the son of God

(42)' Peter is not the son of God

It would be of little use to argue with Geach here, since for his purposes what counts as asserted is what the speaker is committed to by virtue of his utterance. All one could do is argue that this is not what people normally mean by 'assertion'. It is an advantage of the present account that there is no need to resort to this line of argument: the relevance-theoretic notion of an ordinary assertion is a term which can be decomposed into rigorously-defined theoretic vocabulary. One may feel that this captures intuitions about the pre-theoretical term 'assertion', but if anyone objects that it does not, there is no need to worry, as nothing hangs on it. However, as will be seen in the next chapter, which looks at the way the term 'assertion' has been used in the analysis of the Spanish subjunctive, employing it as a technical term without firm theoretical underpinning is liable to cause problems.

2.7   Conditionals

One objection that might be raised against the present account could be that it failed to explain the use of the indicative in the antecedent of conditional sentences. Surely, it would be argued, an 'if'-clause is never presented as relevant its own right, for this would leave no obvious way to explain the lack of assertoric force associated

with indicative 'if'-clauses. As a response to this possible objection, it will be argued in this section that the claim that the indicative encodes the potential relevance in its own right of the proposition expressed is, in fact, just what is needed to explain important differences between indicative and subjunctive conditionals.

Stalnaker (1975/1999: 71) argues that a crucial distinction between indicative and subjunctive conditionals (such as (43) and (44) respectively) is that the former may only be appropriately used in a context which is compatible with the antecedent.

(43) If Peter arrives soon, the party will take off
(44) If Peter were here now, the party would take off

Thus, (43) is acceptable in a context where it is not presupposed that Peter will not come to the party. This is in contrast to (44), which is acceptable in a context in which the proposition expressed by the antecedent (<at the party, Peter>) is not compatible with the presuppositions of the context (i.e. that Peter is not at the party).

These restrictions on usage can be explained in terms of the proposition expressed by the indicative being potentially relevant in its own right. In saying that the antecedent must be compatible with the context, Stalnaker is in effect saying that the proposition it expresses must have the potential of having an effect on that context set (in his terms, of reducing it by eliminating all those possible worlds in which it does not obtain). In the terms of this thesis, this is tantamount to saying that the proposition expressed must be potentially relevant in its own right, for only when expressed by such a form may a proposition directly affect a context.

Characterising conditionals in this manner suggests an explanation for the fact that while indicative conditional have, broadly speaking, two possible uses, subjunctive conditionals have only one. In uttering an assertion of the form 'If P, Q', the speaker can either be asserting that there is a relationship between P and Q such that given P

one can assume Q; or she could mean to communicate Q if P holds. The first of these is an assertion of a conditional, the second a conditional assertion.

(45) If you heat water to 100 degrees centigrade, it boils

(46) If the queen only has one eye, it's a fake

(47) If you want a sandwich, there's some ham in the fridge

The speaker of (45) is making a generic statement, and the relevance of her utterance lies in the relationship she is asserting between water's temperature and its physical reaction. (46) is different in that it is possible that the speaker is making a statement about a particular banknote, such that if that banknote has the feature described in the antecedent of the conditional, then the consequent is true of that banknote. The difference between the two hinges on whether the speaker intends, conditionally, for the proposition expressed by the consequent to be relevant in the derivation of her intended effects on that occasion of utterance. That it is relevance rather than truth which is of primary concern is shown by (47): clearly the speaker is not claiming that the truth of the consequent is dependent on the antecedent, as the ham is in the fridge regardless of the hearer's desires.

In assertions of conditionals, then, it is the relationship between antecedent and consequent which is relevant, whereas in conditional assertions the relevance of the consequence is dependent on the truth of the antecedent (which may or may not influence the truth of the consequent). What is interesting for the current analysis is that subjunctive (i.e. non-indicative) conditionals can be used only to assert conditionals, not to perform conditional assertions: the speaker of (44) cannot under any contextual conditions, be said to be asserting the consequent on the condition that the antecedent is true.[17]

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[17] For discussion of the distinctive features of indicative and subjunctive conditionals, see McCawley (1981: 311-326).

184

In one sense, the reason for this is clear: the antecedents of subjunctive conditionals are counterfactual. As they entail their own falsehood, there is no possibility that they can be true and hence the relevance of the consequence cannot depend on truth of the antecedent. However, this explains the phenomenon in truth-conditional terms. The question for this thesis is how the natural-language semantics proposed for the indicative can explain why there are two possible routes for the interpretation of indicative conditionals, but only one for subjunctive conditionals. The reason should be clear by now: an indicative encodes the information that the proposition it expresses is potentially relevant in its own right. Preceding an indicative clause with 'if' signals that the potential relevance in its own right of the proposition expressed is dependent on its truth. Thus, when a conditional assertion is made, the potentiality of the relevance of the antecedent is signalled, by 'if', to be dependent on the truth of the proposition expressed: if the antecedent is true, it is relevant in its own right and its specified implication (i.e. its consequent) follows. So conditional assertions specify a proposition (the antecedent) which, if true, will be relevant in its own right and specify (in the consequent) how it will achieve relevance. As subjunctive conditionals do not have an indicative antecedent, their antecedents cannot be relevant in their own right and hence cannot be used to perform conditional assertions, only to assert conditionals.

2.8   Assertion and convention

Related to Dummett's claim that assertion is conceptually prior to belief is the view that assertion is an act which involves using a form conventionally marked for the performance of that act. The argument is that in order to attribute a conception of truth to an individual, it is necessary to identify a behaviour which justifies such an attribution. This behaviour, Dummett argues, is the correct use of a form conventionally specified for uttering truths, i.e. the assertoric use of indicative sentences. As the account of the contribution made by the indicative to utterance interpretation developed here does not relate the indicative directly to the utterance

185

of truths, it is necessary to consider whether, contrary to appearances, it is compatible with Dummett's claims.

Here, the important thing to note about the indicative, as was mentioned in section 2.2, is that while it is not restricted to the performance of assertions, the performance of assertions is restricted to the indicative mood. What allows it to be used for non-assertoric ends is the human ability to metarepresent sets of propositional forms sharing the inferential features associated with belief: implying further propositional forms, aiming at consistency, and not necessarily being true. As was seen above, propositional forms of these types constitute the contexts in which non-assertoric uses of the indicative are interpreted.

However, it was also noted in chapter 2 that the ability to metarepresent beliefs appears to be lacking during the early stages of language acquisition. It is tempting to argue, therefore, that in the early stages of language acquisition the indicative mood is indeed a marker of assertoric force, because children are unable to interpret indicative utterances in any other way, due to an inability to metarepresent beliefs or belief-like contents, such as fictions.[18] Moreover, given that the form of the indicative differs from language to language, if it is a sign of assertion then it must be so by virtue of the same sort of conventions that make words signs. Thus, the claims made about the indicative in this thesis are compatible with Dummett's claims that assertion is a conventional activity that must be learnt. Indeed, arguing that a form has a conventional use does not commit one to the view that it can only be used for that purpose. On the view presented in this thesis, though, it is a grasp of

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[18] One possible problem with this view is that children are able to engage in pretend-play prior to passing false-belief tests, suggesting that they may have the ability to attribute mental states representing non-actual states of affairs to an individual. There is some evidence, though, that young children view pretence in purely physical terms and do not attribute the propositional attitudes that, to an adult, would appear to be the natural accompaniment of pretence (Lillard 1993; see also Rakoczy et al. 2004).

the representational nature of assertion that is a pre-requisite of a conception of truth and falsity, and hence belief.

This is not to say that the encoded meaning of the indicative changes once sophisticated metarepresentational abilities have developed. Rather, what changes is the nature of the contexts in which the proposition expressed by an indicative can be relevant in its own right. The only type of context available to the non-metarepresenting child will be a factual one, and hence encoding potential relevance in its own right will be a *de facto* marker of assertion, conventional in the way that worlds are (given, as noted above, that the indicative mood is marked differently in each language). Once other types of contexts are available to the child, however, propositions expressed by the indicative will not necessarily be processed in a factual context, and assertoric effects will not necessarily follow.

It is also worth considering whether the claim that the indicative encodes that the proposition expressed is potentially relevant in its own right entails that this is its function. Millikan (1984: 52-60) argues that the proper function of the indicative form is to cause true belief in the addressee. This is its 'proper function', in her terms, because it is the effect which has led to the continual and widespread use of this form. Again, the view presented here is not incompatible with this. One can readily accept that its success as a means of information transfer is the reason that the indicative is here today. What the view of the indicative as encoding relevance in its own right does is to say how that effect is achieved and why it can be put to further uses, such as the telling of stories.

2.9   Assertion and the main point

In chapter 1, some attention paid to Abbott's (2000) arguments that the claim that certain elements of sentences, like non-restrictive relative clauses, which pass tests for presupposition should not be analysed as elements of the common ground but instead be thought of as 'non-assertions'. Abbott, it was noted, does not offer a detailed account of what constitutes an assertion, instead relying on the intuitive

notion of an "ideal assertion" being which is "one atomic proposition, consisting of one predicate with its unanalyzed arguments" and which typically corresponds to the main clause of the utterance (2000: 1431).

Abbott's work raises an important point for this thesis. It has been argued in this chapter that the indicative marks a proposition as potentially relevant in its own right. However, nothing has yet been said about how the main point of an utterance is identified in utterances containing more than one indicative clause. Consider a sentence such as (48), for example:

(48)   C, who had been granted refugee status in 2000, was arrested in December 2001, just after the Anti-Terrorism, Crime and Security Act - which sanctioned detention without charge or trial and was introduced after the September 2001 terror attacks on New York and Washington - gained royal assent.[19]

This sentence contains a number of propositions expressed by indicative clauses, as listed in (49):

(49)   a.   C was arrested in December 2001 just after the Anti-Terrorism, Crime and Security Act gained royal assent

       b.   C had been granted refugee status in 2000

       c.   The Anti-Terrorism, Crime and Security Act gained royal assent shortly before December 2001

       d.   The Anti-Terrorism, Crime and Security Act sanctioned detention without charge or trial

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[19] Taken from *The Guardian* website 1st February 2005:
http://www.guardian.co.uk/terrorism/story/0,12780,1403335,00.html.

e.   The Anti-Terrorism, Crime and Security Act was introduced after the September 2001 terror attacks on New York and Washington

Intuitively, the main point of the utterance is (49)a. The question is, however, why this is the case: what gives this proposition priority over other propositions also expressed by an indicative clause and thus also potentially relevant in their own right? The obvious answer, that it is syntactically dominant, is clearly central. That is to say, the main clause of a complex sentence is likely to be the main point of the utterance. However, there are cases, such as main-clause parentheticals, when it is the subordinate clause that conveys the main point.[20] What is needed, then, is an account of the conditions under which the main clause of an utterance will not express the main point of an utterance.

Consider a main-clause parenthetical, such as (50):

(50) I think we've missed the train

Here the proposition that the speaker intend the hearer to derive effects from is likely to be the one expressed by the embedded indicative. The effect of the complex proposition expressed by the whole sentence is merely to communicate that the utterance is made without certainty. The issue here is how the speaker identifies the embedded proposition as the main point. The answer clearly involves effect. It was suggested above (section 2.3.3) that the utterance-processing system blindly seeks to derive effects from any indicative clause it comes across. If this is the case, then intuitions about main point-hood can be explained in terms of which proposition leads to the greatest number of contextual effects. In a case such as (50), the embedded proposition will achieve a greater number of effects that the main clause,

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[20] Of course, there are also cases where the main clause conveys no information it its own right at all, as in example (28) of chapter 2: 'You've had your hair cut'.

and will thus be felt to be the main point. In such a case, the contextual assumptions accessible to the hearer will be determined by the situation (suppose the speaker and hearer are in a taxi on their way to the train station), and the speaker can be confident that the hearer will override the syntactic dominance given to the proposition expressed by the main clause.

In cases where the situation does not make accessible the necessary contextual assumptions, however, the addressee will be less likely to override syntactic clues concerning from which proposition he is expected to derive greatest effect. This is the case in written communication such as the newspaper report from which (48) is taken, for example. In such cases, however, it is important to note that being the main point is not simply a case of indicating from which proposition greatest effects should be derived, but also involves creating expectations concerning the nature of subsequent utterances. That is to say, in presenting a certain proposition as the main point, the communicator indicates that subsequent utterances will achieve effects in a context made accessible by processing that proposition. Thus, in presenting (49)a as the main point, the communicator indicates that the next sentence will be most efficiently processed in a context containing assumptions about C, rather than in a context of assumptions about The Anti-Terrorism, Crime and Security Act. In other words, the addressee is justified, on the basis of the fact that the communicator has presented (49)a as the main point, in expecting the next sentence to be about C. And indeed this is the case. (51) is the next sentence:

(51) He had been sentenced in absentia to 15 years imprisonment in Egypt for trying to recruit army officers to a terrorist group

By syntactically subordinating the propositions (49)b to e, the writer indicates that the effects derived from processing these are not likely to play a significant role in the processing of subsequent sentences. In indicating thus their comparative lack of relevance, the writer ensures that, even though these forms are relevant in their own

right, the reader will devote less effort to processing these. Hence the backgrounding effect.

In sum, then, the main point of an utterance will be the proposition which has greatest effect. Being expressed by a main clause is an important indicator of main point-hood, but this can be overridden by contextual factors. In the absence of such factors, an addressee will use syntactic information as an indicator of which indicative clause he should expect to make the greatest contribution to the relevance not only of that utterance but also of the discourse as a whole. Thus, in extended discourse, the choice of which proposition to present as the main point is determined both by the desire to maximise the effects derived from a given proposition and to reduce the effort involved in processing subsequent utterances, both of which contribute to the relevance of the discourse as a whole.[21]

3   CONCLUSION

In this chapter, a relevance-theoretic account of the contribution to utterance interpretation made by the indicative mood has been developed. This account differs from the standard relevance-theoretic account in that it does not posit a link between mood and propositional attitude or world-type, but rather identifies a unique processing potentiality that the indicative encodes. This is the potential for the proposition expressed by that mood to have an effect on a context in its own right. This potential explains why the indicative is so closely associated to assertion, for to assert a proposition is to present it as relevant in its own right to an individual because it will lead to true implications in a factual context.

This account has the advantage of both respecting and meshing well with important philosophical insights into the nature of assertion, such as its special role in the transfer of knowledge and as the basis of truth-aiming inference. It also has interesting parallels with (and has drawn inspiration from) the Heim/Stalnaker view

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[21] For extended discussion of the notion of discourse relevance, see Unger (2001).

of a sentence's meaning as being its context change potential (which will be discussed in some detail in the next chapter). In the account proposed by Heim (1992), indicatives have context change potential (CCP) in that they can exclude worlds from the context set, while non-indicatives may merely affect the ranking of accessible worlds. What the CCP picture lacks, though, is any attempt to unite the representational nature of utterance interpretations with their semantic nature, as characterised in terms of their effect on a Stalnakerian context set. The account developed in this and the previous chapter, by contrast, explicitly relates, through the consistency-aiming notion of relevance, a propositional form's ability to act as a representation to its ability to reduce a context set. On the one hand, to reduce a context set, a proposition must aim at consistency with other members of the context. On the other, it is the aim of consistency that allows a proposition to function as a representation of a particular world. The indicative is used to perform assertions and thereby represent the world because it can give rise to consistency-aiming mental representations.

CHAPTER 4: THE SPANISH SUBJUNCTIVE

1 INTRODUCTION

In the previous chapter, an analysis of the indicative mood was developed on which this form encodes the information that the proposition it expresses is potentially relevant in its own right. This was shown to provide the basis for an adequate explanation of the assertoric use of the indicative as well as its non-assertoric uses. Moreover, it was possible to specify the conditions under which an indicative would not receive an assertoric interpretation, regardless of whether it was embedded or not. As was noted in that chapter, one point that makes these claims stronger than they might at first appear is that the propositions encoded by non-indicative forms cannot be presented as relevant in their own right, but must make an indirect contribution to the relevance of the utterance. In this chapter, this point will be developed by taking a close look at the Spanish subjunctive. This form is of particular relevance to the concerns of this thesis because it has often been analysed, in contrast to the indicative, as a 'non-assertive' form (Hooper 1975; Krakuskin & Cedeño 1992; Lavandera 1983; Lunn 1989a, b, 1992; Mejías-Bikandi 1994, 1998; Terrell 1976; Terrell & Hooper 1974). However, as will be seen, these accounts, although insightful and stimulating, suffer from attempting to employ the notion of assertion as a theoretical primitive, when, as the previous two chapters have shown, it is best analysed as a higher-order term reducible to notions of relevance, explicitness and truth.

This work will be reviewed and contrasted with another approach taken to the analysis of mood, not only in Spanish but across the Romance (and, in some cases, Germanic) languages. This more formal approach seeks to account for the moods in possible-world terms and is exemplified by the work of a number of authors, including Farkas (1985; 1992; 2003), Giorgi & Pianesi (1997), Huntley (1984), Portner (1997), and Villalta (2000). Quer (1998; 2001) also provides a formal-semantic analysis, but in terms of model-shift rather than possible worlds. Like the assertion/non-assertion approach, these more formal analyses will inform the

treatment of the subjunctive proposed here. However, the present work is distinct in that it seeks to develop a processing-oriented account of how the truth-conditional effects which the formalists attempt to capture relate (to the extent that they are correct) to the cognitive process of utterance interpretation.

This chapter starts, then, with a look at the assertion/non-assertion approach to the indicative/subjunctive contrast in Spanish before moving on to look at formal-semantic treatments of the distinction. It is then shown how the present account handles the data, in particular those that present problems for the approaches reviewed.

2   THE ASSERTION/NON-ASSERTION APPROACH

The assertion/non-assertion approach to the indicative/subjunctive contrast in Spanish has its roots in observations that relate mood selection to the possibility of a parenthetical interpretation of certain clausal complements. In order, therefore, to appreciate the attraction of seeking to explain the mood contrast in these terms, it is worth taking a short look at the work of two important precursors of this approach: Urmson (1952) and Bolinger (1968). As is well known, Urmson showed that certain verbs, which he termed 'parentheticals', can function not primarily to contribute to the information communicated by an utterance, but to "prime the hearer to see the emotional significance, the logical relevance and the reliability of our statements" (Urmson 1952: 484). (1) to (3) below illustrate each of these uses:

(1) a.   I regret your application has not been successful

    b.   Your application has not, I regret, been successful

    c.   Your application has not been successful, I regret

(2) a.   I admit your idea has some merit

    b.   Your idea has, I admit, some merit

    c.   Your idea has some merit, I admit

(3) a.   I guess they'll be here by ten

    b.   They will, I guess, be here by ten

c. They'll be here by ten, I guess

In (1)a to (1)c the speaker communicates both that the application has been unsuccessful and that she recognises that this is likely to cause the speaker sadness. Although on one reading of (1)a she could be said to be expressing her regret that the hearer's application has been unsuccessful (hence a non-parenthetical reading), there is an equally likely reading in which her aim is to inform the hearer of this fact and to acknowledge that it is likely to cause the hearer distress (a parenthetical reading). In (2) the speaker commits herself to the truth of the proposition that the hearer's idea has some merit and uses 'I admit' to signal her acknowledgement that this goes against the general thrust of her argument. In (3) the function of the phrase 'I guess' is to qualify the assertion that they will arrive by ten.

These examples are presented in triplets to illustrate a defining feature of parenthetical verbs: that they are syntactically independent of their complement clauses and can be positioned either prior to, within or after that clause. It is this mobility of the main clause that is of interest to Bolinger, who notes that it correlates negatively with the presence of a subjunctive clause in Spanish.[1] He expresses the correlation thus:

> If in English it is possible to drop *that* and move the main verb phrase away from its position in front of the clause, then the verb in the corresponding Romance noun clause will be indicative; if not it will be subjunctive. (1968: 6)

In addition to the fact that the English equivalents of Spanish subjunctive clauses are not separable from their main clauses, it also needs to be noted that the Spanish subjunctive clauses themselves do not enjoy this kind of freedom, as (4) to (6) show:

(4) a. Me alegro de que venga

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[1] As Farkas (1985: 75) points out, the correlation is in fact not perfect ('hope', for example, raises problems). It is, though, highly suggestive and needs explaining.

myself please+1SG of that come+3SG+SUBJ

'I'm happy that he's coming'

b. *Venga, me alegro[2]

come+3SG+SUBJ myself please+1SG

* 'He's coming, I'm happy'

(5) a. Es raro que venga

is strange that come+3SG+SUBJ

'It's strange that he's coming'

b. *Venga, es raro

come+3SG+SUBJ is strange

* 'He's coming, it's strange'

(6) a. Me sorprende que venga

me surprise+3SG that come+3SG+SUBJ

'I'm surprised that he's coming'

b. *Venga, me sorprende

come+3SG+SUBJ me surprise+3SG

* 'He's coming, I'm surprised'

Terrell & Hooper's (1974) motivation for seeking to explain this fact by distinguishing between two types of predicates – assertive and non-assertive – can

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[2] It might be objected that while (4)b is unacceptable, (i) is quite acceptable:

(i)   De que venga, me alegro

of that come+3SG+SUBJ, myself please+1SG

'That he's coming, I'm happy about'

This may be the case, but it is important to note that (i) is not a true parenthetical, as the post-posed clause is not syntactically independent of the main clause. To see this, compare the intonation patterns of (i) and (ii), a true parenthetical:

(ii)   Ven, te ruego

come+2SG+IMP, you beg+1SG+IND

'Come, I beg you'

In (i) there is a rise on the first clause, while in (ii) there is a fall on the first clause.

196

now be appreciated. Assertive predicates, on their account, are those open to a parenthetical reading; that is, those that allow the embedded clause (in certain contexts) to be interpreted as the main point of the utterance, perhaps, but not necessarily, as a result of 'complement preposing' (though all assertive predicates allow this). Non-assertive predicates are those that do not allow the embedded clause to be treated in this way because it is either – so the argument goes – presupposed, unrealised or doubtful. Presuppositional cases are illustrated by (4) to (6) above. These so-called 'factive-emotive' cases[3] cannot felicitously be used to inform someone of the state of affairs described by the complement clause.[4] Unrealised and doubtful cases are illustrated by (10) and (11) respectively, while (12) and (13) exemplify desideratives and directives in turn:

(10) Aviso/Ordeno que venga

   advise/order+1SG that come+3SG+SUBJ

   'I advise/order that he come'

(11) Dudo que venga

   doubt+1SG that come+3SG+SUBJ

   'I doubt he's coming'

(12) Me gustaría que viniera

   me please+3SG+COND that come+3SG+PAST+SUBJ

   'I'd like it if he came'

(13) Ordeno que vengas

   order+3SG that come+2SG+SUBJ

   'I order you to come'

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[3] The extent to which they are a homogenous class deserving of the label 'factive' is not as certain as is generally thought, as will be seen in section 4.5.

[4] There is an exception: 'regret' can be used to make announcements. Such usage is highly restricted and genre-dependent, however. See Abbot (2000) and references therein.

As a number of authors have noted (Guitart 1991; Mejías-Bikandi 1994), one problem faced by Terrell & Hooper's account is how to deal with the complements of so-called 'semifactive' predicates. These are cases such as those listed in (14) to (16), which contrast with those in (4) to (13) in that, while both have complements which can survive under negation (a standard test for presupposition), this commonality is not reflected in their selection of mood.

(14) a. Se ha enterado de que viene

    REFL has found-out of that come+3SG+IND

    'She's found out that he's coming'

  b. No se ha enterado de que viene

    not REFL has found-out of that come+3SG+IND

    'She hasn't found out that he's coming'

  c. No se ha enterado de que venga

    not REFL has found-out of that come+3SG+SUBJ

    'She hasn't found out if he's coming'

(15) a. Se ha dado cuenta de que viene

    REFL has notice of that come+3SG+IND

    'She has noticed that he's coming'

  b. No se ha dado cuenta de que viene

    not REFL has notice of that come+3SG+IND

    'She hasn't noticed that he's coming'

  c. No se ha dado cuenta de que venga

    not REFL has notice of that come+3SG+SUBJ

    'She hasn't noticed if he's coming'

(16) a. Sabe que viene

    know+3SG that come+3SG+IND

    'She knows he's coming'

  b. No sabe que viene

    not know+3SG that come+3SG+IND

    'She doesn't know he's coming'

c. No sabe que venga

not know+3SG that come+3SG+SUBJ

'She doesn't know if he's coming'

The semifactives (14) to (16) are presented in triplets because they have a wider choice of complement than the factive-emotives: the indicative is required for affirmative predicates while either the subjunctive or the indicative can follow a negative. What's more, it is the indicative complement that may be presupposed in these cases (i.e. the subjunctive complements of the third case in each triplet are not presupposed but presented without any speaker commitment to either their truth or falsity, hence the use of 'if' in the glosses), whereas in (4) to (6) the presupposed complement is marked with a subjunctive, as Terrell & Hooper's account predicts. Hooper (1975) considers this point and shows that semifactives such as 'enterarse' ('find out'), 'darse cuenta' ('notice') and 'saber' ('know') demonstrate many of the characteristics of so-called assertive predicates. Most notably, the English equivalents allow post-posing of the matrix clause:

(17) John had been deceiving her, she found out

(18) The door was locked, she noticed

(19) Peter, she knew, was a compulsive liar

Hooper therefore concludes that they are assertive and do not pose a problem for the Terrell & Hooper analysis. However, this still leaves unexplained the fact that the subjunctive in one supposedly factive environment marks presupposition, while in another it marks the absence of presupposition.

Guitart's (1991) solution to this problem is to point to a distinction between what is semantically presupposed and what is pragmatically presupposed, the former being dependent on tests such as survival under negation and the latter depending on speaker-hearer assumptions about the background to the conversation and whether information is new to a hearer. Following Kempson (1975), Guitart argues that it is

199

pragmatic presupposition that is mutually exclusive with assertion: a proposition which is semantically presupposed may be asserted, but a proposition must be either pragmatically asserted or pragmatically presupposed, never both. As an example of the assertion of a semantically presupposed proposition, Guitart offers (20) (his (14)): the fact that the bar is closed is clearly something the speaker assumes to be unknown to the hearer, and hence she might be said to be asserting this. However, this proposition is semantically presupposed, for it is preserved (remains entailed) under negation, as (21) shows.

(20) Noté que el bar estaba cerrado: no te molestes en ir

notice+1SG+PST that the bar be+3SG+IMPERF closed: not yourself disturb+2SG+SUBJ in go

'I noticed that the bar was closed, don't bother to go'

(21) No noté que el bar estaba cerrado

not notice+1SG+PST that the bar be+3SG+IMPERF closed

'I didn't notice that the bar was closed'

On this view, the fact that a proposition is semantically presupposed does not mean it cannot be pragmatically asserted. However, Guitart offers no explanation why subjunctive complements such as those in (4) to (6), which are semantically presupposed on his account, cannot be pragmatically asserted. Rather, he argues that these form a distinct class of predicates (in that they do not relate to knowledge or its acquisition, unlike the semi-factives), and that an account of mood selection that holds across all matrix types should not be sought: "if our interest is to correlate mood choice both with meaning and with sentence use, we should analyze separately the different types of matrices that take sentential complements" (1991: 191). In essence, then, Guitart's response to the problem faced by Terrell & Hooper is to suggest that one should not expect the factors contributing to mood choice to be the same across embedding predicates, a move which seriously undermines the whole assertion/non-assertion approach.

A more promising solution is offered by Mejías-Bikandi (1994). He starts by defining assertion as follows, where P is the proposition expressed by the utterance:

> a speaker asserts a proposition P when the intention of the speaker is to indicate that P describes the world as s/he or some other individual perceives it (p. 892)

This is, of course, a rather idiosyncratic view of assertion, given the review of the notion in chapter 1. On Mejías-Bikandi's view an utterance of a sentence such as (22) would involve two assertions:

(22) Jimmy believes that the tooth-fairy left a coin under his pillow

The first assertion would be 'Jimmy believes the tooth-fairy left a coin under his pillow', which, the speaker would be indicating, describes the world as she sees it; while the second would be 'the tooth-fairy left a coin under Jimmy's pillow'. If the speaker is assumed to be an adult who does not believe in the existence of the tooth-fairy, she would be indicating that this embedded proposition describes the world as Jimmy perceives it. Or at least this is what Mejías-Bikandi appears to have in mind, for one serious problem with this definition is that it entails that it is the speaker who asserts both the matrix *and* the embedded clause. Another problem is that presuppositions and implicatures are, on this account, classed as assertions: in both cases the intention is to describe the world as the speaker sees it. In other words, Mejías-Bikandi's definition of assertion makes no reference to either the informative function or the explicit nature of assertions.

However, Mejías-Bikandi could reply that his aim is not to give an analysis of assertion but to define a term that accounts for mood alternation in Spanish. Indeed, what he clearly wants is a notion that correlates with the use of indicative clauses, whether embedded or otherwise. He attempts to develop such a notion by characterising a speaker's beliefs about the world as a domain R(s) which contains the propositions that the speaker assumes to be accurate representations of reality. Contained within this domain will be further sub-domains which represent other

people's views of reality (or, one might add, which represent the content of works of fiction, suppositions and so on). These domains, Mejías-Bikandi (following Fauconnier 1985) labels 'mental spaces'. Thus, to assert P, on this view, is to say that P is contained in a particular mental space R. So (22) presents 'Jimmy believes the tooth-fairy left a coin under his pillow' as contained in the mental space which constitutes the speaker's view of reality, while 'the tooth-fairy left a coin under Jimmy's pillow' is presented as contained in the mental space which constitutes the speaker's view of Jimmy's view of reality.

Mejías-Bikandi is then able to explain the use of indicative complements in affirmative semifactive cases such as (14), (15) and (16) by arguing that the speaker is making an assertion about her representation of the third person's view of the world. In cases such as (4) to (6), by contrast, the speaker has no intention of indicating that the proposition expressed by the complement is contained in any R and thus the subjunctive is employed. What determines mood choice in negative semifactives is whether the proposition expressed by the complement is presented as holding in the speaker's representation of the world, despite the fact that it does not hold in the subject's. Negative semifactives with an indicative complement (such as (14)b, (15)b, and (16)b) thus present the proposition expressed by the complement clause as contained in the mental space which constitutes the speaker's world view, but not in that R which constitutes the subject's view of the world. Negative semifactives with a subjunctive complement (such as (14)c, (15)c, and (16)c), by contrast, do not present the proposition expressed by the complement clause as contained in any R.

There are clearly similarities between the mental spaces approach adopted by Mejías-Bikandi and the notion of embedded contexts introduced in chapter 2, and the semifactives will certainly be dealt with in a similar manner in this thesis. However, it will later be shown that an advantage of the present account is that it can also deal with data relating to the use of mood switching for information-structure purposes, something which Mejías-Bikandi's approach has difficulty coping with, as

can be seen by considering the data relating to mood choice after 'el hecho de que' ('the fact that').

Krakuskin & Cedeño (1992) analysed mood choice after 'el hecho de que' in a ten-year series of magazine articles by a particular columnist. Among their findings was that subjunctive clauses tended to appear before the main verb (when the nominal clause introduced by 'el hecho de que' was the subject of the main verb), while the indicative generally appeared after the main verb (when the nominal clause was the complement). This is illustrated by (23) and (24):

(23) El hecho de que un cigarrillo sea denominado como bajo en brea o nicotina no significa que el cigarrillo contenga menos nicotina [5]

the fact of that a cigarette be+3SG+SUBJ denominated as low in tar or nicotine not signify+3SG+IND that the cigarette contain+3SG+SUBJ less nicotine

'The fact that a cigarette is described as low in tar or nicotine does not mean that the cigarette contains less nicotine'

(24) En Microsoft, nunca perdemos de vista el hecho de que nuestro éxito depende del suyo [6]

in Microsoft, never lose+1PL+IND of sight the fact of that our success depend+3SG+IND of.the yours

'At Microsoft, we never lose sight of the fact that our success depends on yours'

Krakuskin & Cedeño relate mood choice in this linguistic context to the information value of the propositions expressed. As is well known, presupposed or non-controversial information tends to come earlier in a sentence than new information.

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[5] Example taken from website of Centers for Control and Prevention, U.S. Department of Health and Human Services on 16 December 2002. (http://www.cdc.gov/spanish/tabaco/nodejaque.htm)

[6] Example taken from Microsoft Website on 16 December 2002.

(http://www.microsoft.com/colombia/isv/downs/guia_rapida.doc)

Krakuskin & Cedeño argue that this is reflected in the choice of mood, the subjunctive marking information of low information value and the indicative marking the main point of the utterance. That the indicative/subjunctive contrast in Spanish is exploited in this way has also been suggested by other authors (Lavandera 1983; Lunn 1989a, 1992), and is clearly quite open to an analysis in terms of assertion and non-assertion. Unfortunately, however, once one gets as far from the standard notion of assertion as Mejías-Bikandi's account takes one, it becomes very difficult to explain the information-structure role of the mood contrast. Indeed, on Mejías-Bikandi's account, an utterance will involve as many 'assertions' as there are indicative clauses in the sentence uttered, but he offers no account of how the foregrounded information (i.e. that which conveys the main point of the utterance) is to be picked out.[7] Furthermore, his account wrongly predicts that any use of 'el hecho de que' should take the indicative because, being presented as a fact ('un hecho') it should feature in the speaker's R.

Thus, while the assertion/non-assertion account has great intuitive appeal, it suffers as a result of trying to put a pre-theoretical term to serious theoretical uses. To call a form 'assertive' is to suggest that it might be used for the act of asserting, and the fact that the so-called 'assertive predicates' correlate with parenthetical predicates might at first seem to justify labelling them as such, for the whole point about parenthetical predicates is that the speaker can use them to assert the embedded clause. However, if the term is to be applied to more than first-person uses, one must take a step away from the standard use of 'assert' to something like 'reported assertion' or 'disposition to assert', for only then can verbs such as 'say' or 'believe' be called assertive. This is the move Hooper (1975) makes when she says that assertives commit the speaker or the subject of the matrix verb to the truth of the

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[7] Mejías-Bikandi (1994) is aware of the need to deal with data such as the 'el hecho de que' cases and suggests a link between assertion, foregrounding and relevance. This is not developed, however, and in later papers (1995; 1996; 1998; 2002) Mejías-Bikandi is primarily concerned with the inheritance of presuppositions by embedding domains.

proposition expressed by the complement. This makes the prediction that any verb that takes an indicative complement must commit someone, be it the speaker or the subject, to the truth of the proposition expressed. However, as Farkas (1992) points out, fiction verbs, which govern the indicative, do not commit anyone to the truth of the complement.[8]

Mejías-Bikandi's account copes with this objection in the following way: one can treat the domain of a work of fiction in much the same way as one treats one person's representation of another's beliefs. This can be viewed as constituting an R(fiction) that the speaker is making assertions about. However, it has been shown that following Mejías-Bikandi here removes any possibility of being able to explain indicative/subjunctive alternation after 'el hecho de que' ('the fact that').

This section can be summed up by noting that there is something about the indicative/subjunctive contrast that makes its analysis in terms of assertion and non-assertion initiated by Terrell & Hooper intuitively very appealing. In particular, it meshes very nicely with the evidence from parenthetical verbs and the information structure use of the contrast exemplified by 'el hecho de que'. However, once one starts to use the notion of 'assertivity' as a serious theoretical tool, it becomes necessary to move so far from the standard conception that the original insights garnered from employing this term are lost. What should be retained from this approach, then, is its emphasis on information structure and the role mood choice can play in foregrounding and backgrounding information. What needs to be abandoned is the notion of 'assertivity' as a theoretical primitive. The discussion in the previous chapters suggests how this might be done using Sperber & Wilson's Relevance Theory. Before attempting to develop this suggestion, however, formal-semantic approaches to mood alternation must be considered.

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[8] Farkas also provides a convincing dismissal of the direction-of-fit accounts of indicative/subjunctive alternation, as employed by James (1986). The crucial point is that direction of fit and mood alternation do not co-vary, although there is some overlap.

3 THE MODEL-THEORETIC APPROACH

In this section, the focus will be on two approaches to the indicative/subjunctive contrast. The first is that of Farkas (1985; 1992), who seeks to relate mood choice to whether a proposition is evaluated against a particular world or a set of worlds. The second is Quer (1998; 2001), who relates mood choice to a change in the type of model at which a proposition is evaluated. In other worlds, it is not the type of model *per se* that determines mood choice, but the shift to a different type of model from that at which the embedding proposition is evaluated.

Both of these authors adopt a dynamic approach to semantics, citing Stalnaker, Heim and Kamp as key influences. This section will therefore begin with a look at this approach to linguistic meaning, paying particular attention to the foundational work of Stalnaker and its 'radical elaboration' (Heim 1992: 185) by Heim (1988) and Kamp (1981).

3.1 Stalnaker and the dynamic turn in semantics

Some aspects of Stalnaker's work on assertion have already been discussed in chapter 2. There, the focus was on comparing it with the relevance-theoretic notion of an ordinary assertion and considering the extent to which modifying the common ground could be considered an essential effect of assertion. Here, the concern will be with those elements of Stalnaker's account of assertion that have informed the dynamic view of semantics.

Recall the Stalnakerian picture of assertion. People make and attend to assertions because they can be informative. To explain how they are informative, Stalnaker makes use of the notion of 'common ground', where this is, roughly, the set of propositions assumed by the participants to form the background to a conversation. This set of propositions will pick out a set of possible worlds (those in which they are true) which Stalnaker terms the 'context set'. These are candidates for the actual world: any one of the context set could, as far as the participants are concerned, be the actual world, and the aim of participants in a conversation is to reduce this

uncertainty. If they accept an assertion, the proposition expressed is added to the common ground and, because this forms a consistent set, the context set will be reduced and, along with it, uncertainty as to the nature of the actual world (Stalnaker 1978).

One aspect of Stalnaker's account which is not often discussed is its representational nature. Participants in a conversation aim to improve their shared representation of the world. That the common ground is viewed in representational terms is made clear in Stalnaker (1978: 316): "A proposition – the content of an assertion or belief – is a representation of the world as being a certain way".[9] As the common ground is made up of propositions, it must therefore itself be a representation. But while functions from possible worlds to truth values (which is how Stalnaker describes propositions) are abstract, representations cannot be abstract: there can be no representation without a mode of presentation. It is necessary, therefore, to think of the common ground in terms of a physical representation of how the world might well be.[10] However, although the common ground is a representation of the actual world, one must not make the mistake of treating it as world-like. The propositions expressed by a belief-representation of the world can never be determinate enough to pick out just one world. As Stalnaker himself puts it, "for any given representation of the world as being a certain way, there will be a set of all the possible states of the world which accord with the representation – which **are** that way. So any proposition determines a set of possible worlds " (1978: 316).

The account of mental representation and assertion developed in chapters 2 and 3 was employed to show how the indicative mood, whether used assertorically or not, gives rise to consistency-aiming mental representations. Although these pick out *sets*

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[9] As was argued in chapter 1, though, propositions themselves, being abstract entities, cannot represent anything. It would be better to say that an assertion or belief represents the world as being a certain way by virtue of its propositional content.

[10] For Stalnaker's views on mental representation, see his *Inquiry* (1984).

of possible worlds, as do non-consistency-aiming mental representations, they are able to function as representations of a *particular* world by virtue of the fact that they aim at consistency. Non-consistency-aiming mental representations, by contrast, only represent world-parts. An assertion is then true if the set of worlds the proposition expressed picks out contains the actual world.

Stalnaker's account, however, has nothing to say about the truth of assertions: for his concerns, what matters is the effect that assertions have on the common ground if they are accepted (i.e. treated as true). The consequences of acceptance have little to do with objective truth: an accepted assertion will have the same effect on a context set regardless of whether it is in fact true or false. This is no doubt why the representational side of his account has not been hitherto much discussed: the nature of the world represented and its relation to the proposition expressed by an assertion is of little consequence to the issues of presupposition accommodation and projection which have largely motivated his account. (These comments, by the way, are not meant as a criticism of Stalnaker. The aim is merely to delineate the nature and concerns of his project so that it can more easily be related to the model-theoretic accounts of mood selection that cite it as an influence.)

Before going on to look at these accounts, it is necessary to say something about how Stalnaker's work on assertion has been recast as a theory of linguistic semantics. In this respect, it is important to recognise that Stalnaker has always seen his work as aiming at removing from semantics the burden of dealing with a range of problems that might be better dealt with by pragmatics, presupposition and the associated problems of projection and accommodation being key here (see Stalnaker 2002 for a recent expression of his views). The radical elaboration of his work that has become known as 'dynamic semantics', however, takes his insights in a very different direction.

'Dynamic semantics' is the term applied to accounts of linguistic meaning which explicate meaning not in terms of truth conditions, but in terms of a sentence's

ability to modify a context in the way described by Stalnaker. Given an information state and a sentence, a new information state can be derived. Thus, rather than a function from a possible world to a truth value, a sentence of natural language is seen as a function from an information state to an information state. In Heim's (1992) terms, the meaning of a sentence is its Context Change Potential (CCP). Dynamic semantic theories have been proposed by a number of authors, Kamp being, along with Heim, perhaps the most celebrated proponent. His Discourse Representation Theory (DRT) and Heim's earlier File Change Semantics are outlined in Kadmon (2000). Beaver (2001) is a recent application of dynamic semantics, while a recent critique of the dynamic approach can be found in Breheny (2003). These theories will not be discussed in any detail here. Rather, relevant features will be explained as necessary in the following discussion of model-theoretic approaches to mood that adopt a dynamic stance.

3.2 Mood and possible worlds

Farkas (1992) argues that what unites verbs that govern the indicative is that the proposition expressed by the complement must be evaluated at a particular world 'anchored' to the individual who is the referent of the subject of the matrix clause. This is what, according to her, belief predicates, reported speech verbs and fictional verbs such as 'dream' and 'imagine' have in common. 'Anchoring' thus means that the objects of belief predicates are to be evaluated at the world 'represented as reality' by the individual to whom the belief is attributed; the objects of reported speech at the world that the participants in the conversation took to be reality; the objects of fiction verbs at an unreal fictional world. These predicates contrast with those that govern the subjunctive across the Romance languages, notably directives such as 'order' and desideratives such as 'want', in that the objects of the latter are to be evaluated not at a particular world but at a *set* of worlds. In the case of a desiderative, for example, the set is made up of 'the worlds towards which the referent of the subject has a positive attitude' (1992: 90-91). Farkas calls predicates whose complements are assessed, on her account, at a particular world 'extensional

predicates', and those whose complements are evaluated at a set of worlds 'intensional predicates'.

It is clear what motivates Farkas' account: non-modal assertions are evaluated as true or false at a particular world, *viz.* the actual world; if it can be shown that indicative complements are also evaluated at particular worlds, then a commonality between embedded and unembedded instances of the indicative has been found. However, it will be seen below that Farkas' conception of how belief reports are evaluated is very much at odds with standard possible-worlds accounts of belief attribution. Indeed, it will become clear that it is difficult to maintain the view that the *objects* of belief reports are interpreted as true or false at particular world. This then undermines the distinction Farkas attempts to draw between 'extensional' and 'intensional' predicates.

Dating back to Hintikka (1962), the truth conditions of belief reports have generally been given along the following lines:

(25) 'Peter believes it is raining' is true in a world w iff its is raining in every world w' that is doxastically accessible to Peter in w

Notice that this makes reference to a set of worlds accessible to the referent of the subject of the main predicate in a particular world. In other words, it makes reference to a modal context. The justification for this move can be given in Stalnakerian terms: what Peter believes constitutes his representation of the world. However, for any propositional representation of the world there will be a number of possible worlds which support that representation (i.e. in which the propositions it expresses obtain). Therefore, in describing someone's beliefs, the best one can hope for is to identify a proposition which picks out only those worlds. One cannot hope to pick out a particular world which constitutes an individuals beliefs (even if it were possible to somehow look inside his head and examine all his beliefs), because that representation will not be a complete description of any particular world.

Note that this is not to say that Peter's beliefs do not constitute a representation of a particular world. They are clearly a representation of the actual world. However, the truth of the object of a belief report cannot be evaluated in the actual world, for this would be to deny the semantics of 'believe', which stipulates that its object need not obtain in the actual world.

As a way of illustrating these points, imagine it were possible to list all of the beliefs in your head, and all their implications. Also, make the further assumption that these formed a consistent set, so that there existed at least one possible world in which they were true. However, because you are not omniscient, there would in fact be more than one world in which all you believed is true. For example, if you have a pet dog, then it will have either an odd or an even number of hairs on its body, and your set of beliefs will be true both in worlds where it has an odd number and in worlds here it has an even number. There is thus no particular world at which we could evaluate your beliefs as true. Your beliefs are related to a particular world, of course, as they seek to represent the actual world, of which there is only one. But it would be wrong to evaluate the *object* of a belief *ascription*, such as 'P' in 'You believe that P', in the actual world, because P here serves as a representation of your representation of the actual world, not of the actual world itself.

In other words, one cannot agree with Farkas that the objects of belief reports (or reported speech or fictions, for that matter) are evaluated at a particular world. Farkas (1992) fails to distinguish the representational nature of beliefs from their semantic (i.e. propositional) nature. Because this distinction is made by the present account, however, it is able to maintain Farkas' insight into the common feature of embedded and unembedded indicatives while at the same time adopting a straightforward modal semantics for belief. Assertions, the objects of belief reports, reported speech and fictions all give rise to mental representations which aim at consistency and can therefore function as representations of particular worlds. The objects of want-type predicates, on the other hand, result in mental representations

211

that do not aim at consistency, and thus these are unable to act as representations of particular worlds. Rather, they act as representations of world-parts. Being propositional forms, though, both consistency-aiming and non-consistency-aiming mental representations pick out sets of worlds.

In her 2003 paper, Farkas takes a line much closer to Stalnaker's, when she works within Heim's context-change-potential approach to linguistic semantics, itself, as was noted above, inspired by Stalnaker's work on assertion, presupposition and common ground. Recall that the view Heim takes is that sentences should be viewed not only in terms of their truth-conditions but also in terms of their effect on the Stalnakerian context set, i.e. their context-change potential or CCP. That truth-conditions are not enough to determine a sentence's CCP is due to the fact that even when an assertion is rejected, its presuppositions can still have an effect on the context. Consider, for instance, the sentence in (26) (uttered by someone unrelated to Leo Tolstoy):

(26) My brother wrote 'War and Peace'

Even if this sentence is rejected and the worlds in which Leo Tolstoy wrote 'War and Peace' are not eliminated from the context set, the fact that the speaker has a brother may still be accommodated and the context adjusted accordingly. Alternatively (though equivalently), CCPs may be seen as a restriction on the type of contexts that can be modified by a sentence: thus because (26) presupposes that the speaker has a brother, it only has the potential to change a context in which the speaker has a brother in all worlds in the context set.

Farkas (2003) argues that what unites assertions and the indicative objects of positive epistemic predicates such as 'believe' and 'know', predicates of assertion such as 'say' and 'claim', and fiction predicates such as 'dream' and 'imagine', is that whereas assertions have a CCP in the context set, the complements of these predicates have 'assertive CPP' in an embedded context. These contrast with the

complements of desideratives and directives, which have no CCP in an embedded context, and which generally select a non-indicative complement.

In her later work, then, Farkas is closer to the position adopted in this thesis, which also makes the claim that indicatives can have similar effects on both embedded and unembedded contexts, though she appears to have had to drop the view that the indicative is linked to particular worlds. On the current representational/processing account, however, both this position and the view that assertions and 'assertive complements' are processed in the same way, albeit in distinct types of context, can be maintained.

Farkas' main aim in her 2003 paper is to explain, in optimality-theoretic terms, the cross-linguistic variation on mood distribution in the clauses of the factive-emotive predicates (e.g. 'happy that', 'surprised that', etc). Her earlier model has difficulty dealing with these data, because their factive-nature suggests that their complements are linked to a particular world (i.e. the actual world), but in many Romance languages (Spanish, Catalan and French, but not Romanian) they take a subjunctive complement, contrary to what her account would predict. In her 1992 paper she attempts to explain this by pointing to that fact that these forms are, on the one hand, presented as true in the actual world, but, on the other hand, they "classify situations according to the reaction/emotion they produce, or according to some explicit set of criteria (what one considers good/just etc.)" (1992: 101). In this, she argues, they are like desideratives, directives and modals and one would therefore expect a subjunctive complement. Languages thus face a dilemma in mood selection for the complements of these predicates and hence the cross-linguistic variation.

Farkas (2003) proposes that mood choice is determined to some extent by whether a predicate is assertive or evaluative on the one hand, and decided or undecided in the output context on the other. What it means for a predicate to be assertive has been explained: its complement must have a CCP in an embedded context. An evaluative predicate, by contrast, is one whose complement merely alters the ranking of worlds

in an embedded context, rather than eliminating any of them. The decided/undecided distinction is as follows: a sentence is positively decided if the proposition it expresses is included in the set of possible worlds that constitutes the context set; it is negatively decided if the intersection of the context set and the proposition expressed is empty; and it is undecided if neither of these conditions obtains. An informative assertion is undecided in relation to the input context set and decided (either positively or negatively) in relation to its output. That is to say, it is not a member of the context set prior to the utterance and subsequently has either been accepted or rejected as an addition to the common ground. A felicitous presupposition is positively decided in relation to both input and output context sets: i.e. it is a member of the context set prior to the utterance.

On Farkas' optimality-theoretic approach to mood selection, there are constraints that penalize the use of the subjunctive with decided predicates and the indicative with non-assertive predicates. This explains the general preference across the Romance languages for what she terms 'strong intensional predicates' (such as 'believe', 'say' and 'imagine', which are assertive on her account) to select the indicative and for 'weak intensional predicates' (such as 'command' and 'want', which are evaluative on her account) to select the subjunctive. The problem is that the complements of factive-emotive predicates are both positively decided and evaluative, so that whatever mood is chosen it will violate one of the constraints, either that of using the subjunctive with a decided predicate or the indicative with a non-assertive predicate. Languages differ, then, in which constraint they rank higher: if it is the use of the subjunctive with decided predicates, then the indicative will be preferred for factive-emotives, as in Romanian; if it is the use of the indicative with non-assertive predicates, then the subjunctive will be chosen, as in Spanish and French.

While this is a detailed and well-thought out OT/CCP account of the facts, it is not clear what light it sheds on the data. In particular, it is not clear what it offers over and above an account couched in terms of assertion and non-assertion. One could

214

say that assertion involves a commitment to truth and an informative function: when both are present the indicative is used, when neither is present the subjunctive, and when one is present languages will differ. In other words, the formalism Farkas brings to the issue doesn't appear to buy much explanatory power. This will only be the case if the constraints she identifies can be related to other cross-linguistic variations.

Before concluding this section, it is neccesary to consider briefly the work of two other authors who have sought to explain mood-choice in terms of possible worlds: Huntley (1984) and Portner (1997). Huntley aims to account for the fact that imperatives cannot be true or false while indicatives can, by arguing that the latter are deictically linked to particular worlds while non-indicatives are not. Consequently, when making an assertion, a speaker commits herself to truth because she specifies at which world the proposition expressed by her utterance should be evaluated, while there is no such specification with the imperative. This approach is similar to Farkas (1992), but differs in that it does not claim that truth is relativised to individuals, merely that speakers can make claims about different worlds. On his account, though, novel fictions should still be evaluable as true or false, as they are about a particular world. But one cannot accuse the teller of a novel tale of uttering falsehoods, even though linguistically her story may have all the same features as a testimony given under oath. In short, although a step in the right direction, Huntley's account says nothing about assertoric force. It must be noted, though, that Huntley himself acknowledges that his is a semantic account that needs to be accompanied by an appropriate pragmatic theory. Indeed, the account developed in this thesis might be seen as just that.[11]

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[11] Huntley's position has been repeatedly misunderstood in the relevance-theoretic literature on mood (see Clark 1991; Rosales Sequeiros 2002; Rouchota 1994b; Wilson & Sperber 1988a), where it is often claimed that he relates the indicative to the actual world, whereas he actually relates it to a particular world: "the indicative mood locates states of affairs in a way that makes essential reference

Portner's approach is interesting in that he employs a distinction between worlds (or world-like situations) and situations, which reflects to some degree the present distinction between representations of worlds and of world parts. On Portner's view, the essential difference between indicatives and non-indicatives (he considers the 'for'-infinitive, mood-indicating *may*, the mandative subjunctive – including the imperative, and the Italian subjunctive) is that the propositions expressed by indicative clauses are added to an information state that is expandable, while those expressed by non-indicatives are not. This is not to say that Portner assigns the same semantics to all non-indicatives, but rather that he claims that all the non-indicatives that he considers have this feature in common.

What exactly does it mean for a context to be expandable? To answer this question one needs first to look at Portner's characterisation of a proposition. On his terms, a proposition is a set of situations, where a situation is a spatiotemporal chunk of a world. A proposition P is true in a situation S if two conditions are fulfilled: (i) P must contain S; (ii) S must be a world or world-like. The second condition is stipulated to allow for the fact that certain propositional forms (such as imperatives, for example) cannot be true or false. For a situation to be a world, or at least world-like, it must, among other things, be spatiotemporally extended and support counterfactuals. A 'normal world', for Portner, is one which has the features worlds are generally assumed to have, such as a distant past, far away things such as stars, and so on. Propositions that contain only situations that are normal worlds or world-like are termed 'expandable'.

Like Farkas, Portner also adopts a Stalnakerian view of assertion, on which, the new common ground following a successful assertion is the intersection of the set of

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to *this world* (i.e. the actual world) **or some contextually specified alternative**" (1984: 120, italics Huntley's, bold mine).

216

situations contained in the common ground prior to the utterance with the set contained in the proposition expressed by the assertion. For this intersection to be non-null, argues Portner, the proposition asserted must contain normal worlds, as the common ground will generally contain only normal worlds, for participants in a conversation will generally presuppose a distant past, far way things such as stars, and so on.

By thus specifying that only the propositions expressed by indicatives contain normal worlds, Portner is able to offer an account of why only indicatives can be uttered assertorically, and he accounts for the non-assertoric use of embedded indicatives, such as the complements of 'believe'-sentences, in a parallel manner. The context to which the proposition expressed by the complement of (22) would be added is made up of the set of situations taken to be doxastically accessible to Jimmy.

(22) Jimmy believes that the tooth-fairy left a coin under his pillow

The important point here is that this set is also expandable, as it will contain only normal worlds, the fact being that people generally only have beliefs about normal worlds. The same analysis holds for fiction verbs such as 'dream', for, as Portner points out, even the strangest dreams are grounded in a common-sense view of reality.

The contrast between situations and normal worlds, and the way in which these are related to mood choice emphasises, through the notion of an expandable context, that the context at which indicative clauses are interpreted must be one which licences common-sense assumptions. In other words, plain assertions, belief reports and fictions require background assumptions with which they can be integrated. Thus, the similarities between Portner's and the present account should be evident: as was noted above, his distinction between world-like and non-world-like situations parallels the current distinction between world and world-part representation

introduced in chapter 2. Like the other model-theoretic accounts discussed in this section, though, Portner is unable to deal satisfactorily with the information-structure use of the indicative-subjunctive contrast, whereby the subjunctive is used to express backgrounded propositions. He might want to claim that as backgrounded information is presupposed, it is already present in the context set and hence does not need to be added to it. This would create a tension, though, between a proposition that, on the one hand, must contain world-like situations if it is to be compatible with the context set, but, on the other hand, must contain no world-like situations if it is to be expressed by a non-indicative.[12]

3.3   Mood shift as model shift

Despite its problems, the assertion/non-assertion account of the indicative/subjunctive contrast in Spanish has the particular appeal of being able to account easily for the alternation of mood where this appears to have no truth-conditional import, i.e. in its information-structure usage. It was shown above that neither Portner nor Farkas could explain this phenomenon. Indeed, it seems fair to say that the very nature of model-theoretic approaches precludes them from being able to cope with such data, for they are concerned with explicating the difference in *meaning* between the two clauses rather than their *function* in utterance interpretation. For this reason Quer's (1998; 2001) account is of significant interest: although it lies within the model-theoretic tradition, it claims to be able to handle not only the complement-selection cases of mood alternation, but also the information-structure data.

Quer does not attempt to assign specific interpretations to the indicative and subjunctive moods but rather argues that a switch from one mood to another

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[12] It is interesting to note, though, a convergence between the assertion-theorists, in particular Mejías-Bikandi, and some of the model-theorists, notably the early Farkas and Huntley. All see the notion of a particular world or world-representation being central to an adequate account of the indicative/non-indicative contrast. As should be amply clear by now, this is also the view maintained in this thesis.

indicates a shift in the type of model against which the proposition expressed should be evaluated. Like Farkas (1992), Quer employs the notion of individual anchors to domains of interpretation. In his use of the notion of anchoring, Quer distinguishes between weak and strong intensional predicates (referring to then-unpublished work by Farkas, which appears to have surfaced as Farkas 2003). The former include those interpreted against an epistemic model ('believe', 'think'), those interpreted against a dream or fiction model and those interpreted against a model of a reported conversation; the latter are those, such as 'want' and 'order', that are interpreted at "a set of worlds that model alternative realizations of the actual world according to the preferences of the matrix anchor" (Quer 2001: 85).

Mood shift, according to Quer, correlates with and signals a change in the type of model at which the proposition expressed is to be evaluated. Take (27) and (28) as examples:

(27) [María cree [que Pedro está loco]$_{ME(María)}$]$_{ME(speaker)}$

Mary believe+3SG+IND Peter be+3SG+IND

'Mary believes Peter is insane'

(28) [María quiere [que Pedro se marche]$_{MBul(María)}$]$_{ME(speaker)}$

Mary want+3SG+IND Peter REFL leave+3SG+SUBJ

'Mary wants Peter to leave'

On Quer's account, both the embedded clause and the main clause in (27) are interpreted against the same type of model: the main clause against the epistemic model of the speaker and the embedded clause against the epistemic model of Mary. In (28), by contrast, two types of model are employed: the *epistemic* model of the speaker, against which the main clause is interpreted, and the *buletic* (i.e. desire state) model of Mary. For Quer, where mood selection is obligatory, it is this shift in model type which is crucial, rather than the type of model *per se*.

219

Quer distinguishes between cases where mood is selected by a predicate and those where the choice is free. In the former case, a change in the anchor cannot trigger a change in mood. In cases where the choice is open, by contrast, Quer suggests that a change in the anchor can result in mood alternation. The example he gives concerns negated attitude descriptions such as (29) and (30) (these are Spanish versions of Quer's (17)):

(29) El jurado no cree que es inocente

  the jury not believe+3SG+IND that be+3SG+IND innocent

  'The jury doesn't believe he's innocent'

(30) El jurado no cree que sea inocente

  the jury not believe+3SG+IND that be+3SG+SUB innocent

  'The jury doesn't believe he's innocent'

What distinguishes (29) and (30), according to Quer, is that the indicative complement in (29) is interpreted against the same model as the main clause, i.e. the epistemic state anchored to the speaker, while the subjunctive complement of (30) is interpreted against the jury's epistemic state. Moreover, when a mood change is triggered by a change in anchor, the way in which the context is changed differs from that found when it is triggered by a change in model type: rather than being added to the model in question, the proposition expressed by the embedded clause is marked as *not* to be added, according to Quer. In (29), by contrast, the embedded proposition is added to the model of the speaker's epistemic state (by a process of accommodation, for according to Quer the indicative complement of an attitude description passes tests for presupposition).

In short, on Quer's account, when mood is selected by a predicate, change in mood signals a change in the type of model at which the proposition expressed is to be evaluated; when mood is not selected but there is a free choice, then a mood shift signals a change both in the anchor and in the manner in which the proposition expressed is to affect the relevant model.

Quer argues that the main advantage his model has over alternative model-theoretic accounts is that the semantics he assigns to the moods is 'non-rigid' in that no specific interpretation is posited: in particular the subjunctive is not directly linked to modality. This allows him to account for the information-structure cases, such as 'el hecho de que', where a subjunctive complement is most successfully analysed as signalling presupposition or low information value. On Quer's account (although he doesn't discuss this particular form), what happens here is that the shift to the subjunctive signals that the proposition expressed is to be interpreted against the model of the participants' common ground (as opposed to a model of the speaker's epistemic state). In a similar manner, he is able to deal with the fact that a subjunctive complement of 'aunque' ('although') can signal either non-factivity or factivity:

(31) Aunque me pagues, no lo haré

   although me pay+3SG+SUBJ, not it do+1SG+FUT

   'Even if you pay me, I won't do it'

(32) Aunque sea su hijo, no le ayuda

   although be+3SG+SUBJ her son, not him help+3SG+IND

   'Even though he's her son, she doesn't help him'

As the English glosses show, the 'aunque'-clause in (31) has a non-factive reading, while in (32) the corresponding clause has a factive reading, even though both are subjunctive. According to Quer, this is because both readings require a model shift. In (31) the shift is to a version of the model of the speaker's epistemic state which has been extended to include even those worlds the speaker considers highly unlikely; in (32) the shift is to a model of the common ground, reflecting the fact that the factive reading of the subjunctive is only possible when the proposition expressed is assumed by the speaker to be common ground.

Crucial to Quer's account is the view that the notion of truth needs to be relativised to individuals (Quer 1998: 23). But while one might accept that this is a necessary move in order to explain the semantics of belief reports, so that 'x believes that P' is true iff P is true in the worlds compatible with x's doxastic state, Quer wants to go further than this when he says that:

> For unembedded assertions the individual anchor is the speaker and the relevant model is the epistemic model of the speaker, M_E(speaker), which is the default one: it stands for the speaker's worldview and it represents his or her epistemic status, what s/he knows and believes (Quer 2001: 84)

This represents a significant departure from Stalnaker's view of assertion, on which the information state that a successful assertion modifies is the common ground. In effect, what Quer suggests is that one should treat the objects of belief reports and unembedded assertions in essentially the same way, i.e. as true if the proposition expressed obtains in all worlds compatible with an individual's beliefs. The attraction of this view is that it accounts for the embedded and unembedded indicatives in the same way. However, there are also significant disadvantages.

First, rejecting the Stalnakerian view that the informational state that assertions have their effect on is the common ground leaves unanswered the question of how assertions convey information about the world. A crucial property of the objects of belief reports is that they are opaque: the objects and properties referred to and denoted need not exist in the actual world. Assertions involving main-clause indicatives without intensional operators, on the other hand, are transparent. On the Stalnakerian picture, adding propositions to the common ground is informative because it reduces uncertainty about the nature of the world (though, as has been noted above, there is nothing in his account concerning whether this reduction in uncertainty is warranted). If one follows Quer, though, then the effect of an assertion is simply to reduce uncertainty about the speaker's beliefs, not about the wider world. Thus, the view of communication that results is one in which participants develop ever more fine-grained accounts of the world according to their fellow participants without ever agreeing on the nature of the world they are in.

Second, Quer's account offers no explanation of the different semantics for basic assertions and first-person belief reports. On his account, both (33) and (34) will have the same effect, whereas on the Stalnakerian picture (33) will remove all those worlds in which it is not raining from the context set, while (34) will remove all those worlds in which the speaker does not believe that it is raining. On Quer's story, though, both will simply update a model of the speaker's epistemic state.

(33) It's raining

(34) I believe that it's raining

Given Moore's paradox,[13] the equivalence for Quer of (33) and (34) might be thought to recommend his account. However, his account offers no explanation of why a speaker might be prepared to assert (34) but not (33), as could well be the case if the speaker had cause to doubt the reliability of her senses or cognitive performance. Indeed, on Quer's account there is no reason why anyone would ever utter (34).

Moreover, as Breheny (2003) points out, anyone who wants to claim that non-modal assertions are interpreted against an epistemic model will have a hard time accounting for the fact, discussed in some detail in chapter 2, that young children who are unable to demonstrate the ability to attribute belief are, nevertheless, capable of making and interpreting assertions.

There are, therefore, good reasons to doubt that unembedded indicatives are evaluated at the speaker's epistemic state. However, this greatly undermines Quer's story. If there is a shift from some other type of model to an epistemic model in

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[13] The paradox rests on the oddness of a speaker uttering 'It's raining but I don't believe that it's raining'.

belief reports, then his account predicts that the object of positive belief reports should be in the subjunctive. As (27) shows, however, there is no mood shift in these constructions.

To sum up this section, both Quer and Farkas (1992) seek to account for mood choice by identifying a similarity between the object of belief reports and assertions. For Quer, it is that both are interpreted against a model of an epistemic state. For Farkas, both are evaluated at particular (as opposed to sets of) worlds. Neither of these positions is without serious problems. That there is a similarity between the two uses of the indicative cannot be denied, though. The similarity is that both represent particular worlds by virtue of the fact that the mental representations they give rise to aim at consistency. In other words, both present the proposition expressed as relevant in its own right. The following section will show how this claim is able to explain the distribution and effects of the subjunctive mood.

4   A RELEVANCE-BASED APPROACH TO THE INDICATIVE/SUBJUNCTIVE CONTRAST

The general direction of the approach to be taken here should be clear, given the analysis of the indicative presented in chapter 3. It was argued there that what distinguishes the indicative from other moods is the potential for the proposition it expresses to contribute directly to the utterance's contextual effects. In other words, such propositions are potentially relevant in their own right. Thus, the contribution made by the subjunctive must be explained in terms of these propositions being presented as not relevant in their own right. In order to test this hypothesis against the data, however, it is first necessary to consider the possible ways in which a proposition expressed by a linguistic form may be presented as not relevant in its own right, either in a context or to an individual.

4.1   How can a propositional form not be relevant in its own right?

In answering this question, it is necessary to consider both embedded and unembedded forms and explicit and implicit forms. This will largely be a recap of parts of chapter 3, but it will be useful to recall this material before starting the analysis of the subjunctive.

A propositional form is not relevant in its own right if it is not employed as a premise in the derivation of contextual effects. Such a propositional form can play a role in utterance interpretation in two distinct but not exclusive ways: either as a constituent of a complex propositional form, or by making more accessible a context in which effects can be achieved and thereby contributing to the overall relevance of the utterance by reducing processing effort.

Some examples of the first of these are imperatives and the complements of what Hooper and Terrell term non-assertive predicates:

(35) Stand up

(36) I doubt that you know him

(37) I wish you wouldn't do that

(38) He commanded her to write the letter

As was seen earlier, what all of these have in common is that the complement, or the main-clause itself in the case of the imperative, have no effect on any context in their own right. In the imperative case, this is because there is no 'base-level explicature' constituted by the proposition expressed by the utterance. Imperatives communicate only higher-order explicatures.

The second type of case where a propositional form is not relevant in its own right is exemplified by the contrastive-stress example (39) (repeated from chapter 3, example (19)), which employs the already-manifest (39)b to activate a context in which (39)a can achieve relevance.

(39) a. JOHN gave Peter a lift
     b. Someone gave Peter a lift

This type of effect is not restricted to implicit propositions, though. As Unger (2001: chapter 5) discusses in some detail, speakers can explicitly state a proposition which has a context-activating role. In the dialogue in (40), the first sentence of B's response is not intended to inform A that he has known Peter for a long time. Rather, it activates contextual assumptions that provide the basis for interpreting the second sentence of his reply. Pre-verbal instances of 'el hecho de que', as in (23) (repeated below), are subordinate-clause examples of this phenomenon, in that the proposition expressed by the 'el hecho de que'-clause is not intended as informative in its own right:

(40) A: Peter looks sad. Someone should speak to him.
      B: You've known him a long time. You should speak to him.

(23) El hecho de que un cigarrillo sea denominado como bajo en brea o nicotina no
      significa que el cigarrillo contenga menos nicotina
      the fact of that a cigarette be+3SG+SUBJ denominated as low in tar or nicotine
      not signify+3SG+IND that the cigarette contain+3SG+SUBJ less nicotine
      'The fact that a cigarette is described as low in tar or nicotine does not mean
      that the cigarette contains less nicotine'

Although B's first sentence in (40) is indicative yet not relevant in its own right, it does not pose a problem for the current analysis as this claims only that the indicative marks the *potentiality* of relevance in its own right.

Having recapped these types of cases, it is now time to proceed to examine the Spanish subjunctive in more detail.

4.2 Mood selection

It might be thought that when mood selection is prescribed by the matrix clause, there is no need for semantics or pragmatics to get involved in what is essentially a syntactic (sub-categorisation) issue. However, to adopt this position would be to ignore the fact that there is a certain semantic homogeneity among the predicates

which mandatorily select the subjunctive, which suggests that there is something more than just syntactic prescription at work.

As has been seen in the above discussion of other accounts of the subjunctive, verbs which most robustly select this form are expressions of desire and of doubt. The current approach can account for the objects of desire reports in essentially the same way as it does the imperative: these forms do not present the proposition expressed by the complement clause as relevant in any context, embedded or otherwise. Indeed, the mental representations to which the objects of desire ascriptions give rise do not aim at consistency, as they represent features that worlds fulfilling a desire must have, rather than worlds themselves. Thus, like the propositions expressed by imperatives, they are not presented as relevant in their own right and hence are not expressed by an indicative.

Expressions of doubt, disbelief or uncertainty deny the relevance of the proposition expressed by their object in an accessible context. The aim of such utterances is either to remove from, or to prevent the addition of, the proposition expressed by the complement clause to that context. On the present account, the preference for the subjunctive is therefore unsurprising. (Of course, the removal of a proposition from the context set is a contextual effect, but the effect is not derived by using the proposition expressed as a premise, as when a propositional form is relevant in its own right. Rather, the offending proposition is simply removed from the set.)

4.3 Double-selection

More interesting than cases of mandatory subjunctive selection are those cases where the mood of the complement is variable, for these provide a real test for any account of the effect of mood selection on interpretation.

Verbs like 'creer' ('believe') and 'opinar' ('think', in the sense of 'to be of the opinion that') are verbs expressing epistemic attitude. With such verbs, there is room for a large amount of variation in whether the attitude is positive or negative,

227

whether the subject is first-person or not, and, if it is not first person, whether the speaker shares the attitude he is ascribing to the subject of the verb. Consider the following examples:

(41) a. Creo que Pedro es inocente

   believe+1SG+IND that Peter be+3SG+IND innocent

   'I believe that Peter is innocent'

   b. No creo que Pedro sea inocente

   not believe+1SG+IND that Peter be+3SG+SUBJ innocent

   'I don't believe that Peter is innocent'

   c. No creo que Pedro es inocente

   not believe+1SG+IND that Peter be+3SG+IND innocent

   'I don't believe that Peter is innocent'

(42) a. María cree que Pedro es inocente

   Mary believe+3SG+IND that Peter be+3SG+IND innocent

   'Mary believes that Peter is innocent'

   b. María no cree que Pedro sea inocente

   Mary not believe+3SG+IND that Peter be+3SG+SUBJ innocent

   'Mary doesn't believe that Peter is innocent'

   c. María no cree que Pedro es inocente

   Mary believe+3SG+IND that Peter be+3SG+IND innocent

   'Mary doesn't believe that Peter is innocent'

   d. *María cree que Pedro sea inocente

   Mary believe+3SG+IND that Peter be be+3SG+SUBJ innocent

   'Mary believes that Peter is innocent'

In positive first-person cases, such as (41)a, the indicative is the only choice as the speaker presents the complement as relevant in, at least, an embedded context constituting the hearer's representation of her (the speaker's) world-view, though, of course, she may also be presenting it as relevant in a factual context. As was noted above, the presence of the subjunctive in the negative (41)b is not surprising either,

228

given that in expressing disbelief in a proposition the speaker implies that it would not be relevant in any context, either one representing his world-view or a factual context. However, the indicative is also found in (41)c as in (42)c, a negative third-person belief ascription.

These two examples require some discussion as the most obvious analysis for (42)c will clearly not work for (41)c. This is that there is a difference in attitude between the speaker and María, such that while María, according to the speaker, does not believe the speaker is innocent, the speaker does (de Bustos & Aliaga 1996: 29-31; Quer 2001: 91). Thus, on the present account, the speaker is indicating that although, as the negative epistemic indicates, the proposition expressed is not relevant in an embedded context constituting a representation of María's world view, it is potentially relevant in a factual context (and hence in a context representing the speaker's own world view). This won't work for (41)c, though, as the speaker cannot be claiming that the proposition expressed is not relevant in its own right in an embedded context constituting her own world view but is relevant in a factual context, for this would imply that the speaker refused to believe what she presented as true. Rather, what needs to be noted about cases such as (41)c is that they are limited to instances of "an echoic or citing construction, that is, as a quasi-literal mention of the words by the speaker or as an immediate answer to a previous assertion" (Aliaga & de Bustos 2002: 141). This echoic analysis is further supported by the fact that, as both Lunn (1989b: 253) and Quer (1998: 61, fn. 61) note, right dislocation of the subordinate clause in first-person negative belief sentences does license the indicative, as in (43):

(43) Que Pedro es inocente, no creo

Such a construction is only acceptable in a discourse in which the proposition expressed by the subordinate clause has already been introduced. As cases of mention rather than use, examples such as (41)c and (43) do not undermine the present analysis.

Positive third-person belief reports with a subjunctive complement are not found in Spanish, thus the ungrammaticality of (42)d. Were they permitted, however, the present analysis would predict that they functioned to indicate that the proposition expressed was not relevant in an accessible context. As the speaker, by the use of a positive epistemic verb, has indicated that the proposition would be relevant in an embedded context, the accessible context in which this is not relevant would be a factual one. This is indeed the effect that is achieved in languages that do allow subjunctives in such cases: German and Italian (examples are from Giorgi & Pianesi 1997: 199 & fn.195).[14]

(44) Hans glaubt, daß er krank ist/sei   (German)

     Hans thinks that he ill be+3SG+IND/be+3SG +SUBJ

     'Hans thinks that he is ill'

(45) Gianni crede che Mario ha/abbia mangiato troppo   (Italian)

     Gianni believes that Mario has+3SG +IND/has+3SG +SUBJ eaten too.much

     'Gianni thinks that Mario has eaten too much'

In cases such as (44) and (45), the subjunctive allows the speaker to make explicit his lack of commitment to the proposition expressed by the subordinate clause, while in languages such as Spanish and English whether or not the speaker subscribes to the view she attributes to another has to be determined by pragmatic considerations. One interesting question the present analysis raises concerns whether German and Italian speakers opt for the subjunctive with these types of constructions only if they believe that, should they use the indicative, there is a chance that the audience will process the proposition expressed in a context more accessible than the one intended by the speaker. Some evidence that this is indeed the case comes from

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[14] Giorgi & Pianesi offer an interesting cross-linguistic account of mood selection in Germanic and Romance languages which is similar to that of Farkas (1992).

Unger (2001), who notes that German speakers recounting a dream may begin in the subjunctive and then shift to the indicative. On the present account, this is because once the context in which effects are to be derived has been identified, there is no benefit to be gained from continuing in the subjunctive. That is to say, once the context in which the proposition expressed is to be processed has been established, it becomes the most accessible, thus warranting the use of the indicative.

While speakers of belief-attributing sentences may want to make it clear whether or not they subscribe to the attributed belief, the factive nature of positive knowledge-ascribing sentences means that there is no such ambiguity to be resolved in these cases, and thus one only finds indicative complements in such cases. As (14)c, (15)c and (16)c (repeated below) show, the effect of a subjunctive complement in a negative knowledge-ascription sentence is to remove the factivity. In terms of the present analysis, an indicative complement to a negative knowledge-sentence indicates that the proposition is potentially relevant in its own right in a factual context, while a subjunctive complement does not indicate this. Rather, it indicates that the only way the subjunctive clause can contribute to the relevance of an utterance is as a constituent of a complex proposition, not in its own right in either an embedded or a factual context.

(14) c. No se ha enterado de que venga

       not REFL has found-out of that come+3SG+SUBJ

       'She hasn't found out if he's coming'

(15) c. No se ha dado cuenta de que venga

       not REFL has notice of that come+3SG+SUBJ

       'She hasn't noticed that he's coming'

(16) c. No sabe que venga

       not know+3SG that come+3SG+SUBJ

       'She doesn't know if he's coming'

There is one form of double selection that has received particular attention due to the fact that mood selection actually appears to influence the semantics of the embedding verb. This phenomenon has been discussed recently by Ahern & Leonetti (2004; though see Bosque 1990: 43-46 for earlier discussion and references), and centres on the manner in which certain verbs that relate to the expression of thoughts can be seen as reporting either an assertion or a directive depending on whether they have an indicative or subjunctive complement clause. Two examples that Ahern & Leonetti give are (46) and (47) (their (9) and (10)):

(46) a. Dice que pones mucha sal

      say+3SG that put+2SG+IND much salt

      'S/he says that you put a lot of salt in'

   b. Dice que pongas mucha sal

      say+3SG that put+2SG+SUB much salt

      'S/he tells you to put a lot of salt in'

(47) a. He pensado que pones mucha sal

      have+1SG thought that put+2SG+IND much salt

      'I thought you put a lot of salt in'

   b. He pensado que pongas mucha sal

      have+1SG thought that put+2SG+SUB much salt

      'I've decided that you should put a lot of salt in'

As Ahern & Leonetti point out, this phenomenon occurs across an entire group of verbs, such as 'gritar' ('shout'), 'escribir' ('write'), 'repitir' ('write'), 'indicar' ('indicate') and advirtir ('notify'). The obvious solution of lexical ambiguity runs into immediate problems when it is noted that verbs such as these may take co-ordinated complements of opposing moods, as (48) (Ahern & Leonetti's (11)) shows:

(48) Avisa que viene el tren a su hora y que vaya el taxi a recogerle

warn+3SG+IND that come+3SG+IND the train at its time and that
go+3SG+SUB the taxi to collect.him

'S/he says that the train is coming on time and for the taxi to go and collect
him/her'

Ahern & Leonetti suggest that this phenomenon is best explained by positing that
the contribution to utterance meaning of the embedding predicate is influenced by
mood choice, with the indicative resulting in an assertive reading of the predicate,
the subjunctive in a directive reading. The process involved is suggested to be along
the lines of contextually motivated conceptual adjustment discussed by Carston
(2002b), and outlined in chapter 2 of this thesis. Procedurally encoded information
made available by the choice of mood, they argue, influences the conceptual
representation that results from processing the embedding predicate. (The
conceptual/procedural distinction is also discussed in chapter 2 of this thesis.)

The key question that this account raises is one of just what procedure is encoded by
mood. Ahern & Leonetti suggest that the procedural information encoded by the
indicative is that the proposition expressed is an assertion, while the subjunctive
encodes non-assertion. Unfortunately, Ahern & Leonetti don't offer an account of
what 'assertion' means in this case. They express some sympathy with the view put
forwards by Mejías-Bikandi, which was discussed in some detail in section 2 of this
chapter and found to be problematic, but claim that their main aim is not to argue
that the subjunctive be treated as an indicator of non-asserted information. Rather,
they say, it is to show that the subjunctive's content is procedural.

The claim that the subjunctive encodes procedural information is worth making to
the extent that (a) there are competing claims that it is conceptual; and/or (b) a
description of the procedure encoded can be given. Ahern & Leonetti do not show
that it is a commonly held view that the subjunctive is a case of conceptual
encoding. As regards a description of the procedure given, throughout their paper
they repeatedly describe the subjunctive as indicating that the proposition expressed

233

is not asserted (despite their unwillingness to sign up to any account of assertion). As has been shown clearly in this chapter, it is very unlikely that a conception of assertion can be found that will do all the work needed to explain indicative/subjunctive mood alternation (recall the problems faced by Mejías-Bikandi's account, for instance). As a result, the claim that the subjunctive procedurally encodes non-assertion still leaves a great deal to be explained.

In contrast, this thesis gives a very precise account of how the mood system contributes to the processing of utterances. On this account, what is encoded by mood is clearly non-conceptual. However, the term 'procedural' has been avoided for two reasons. First, a great number of linguistic forms have been discussed in these terms (determiners, tenses, pronouns, discourse particles, interjections) and employing the same term for mood might suggest a commonality that, while possible, would have to be shown. Second, in assigning a phenomenon a positive term (such as 'procedural') one is liable to think that something has been explained, when perhaps little has in fact been said; a negative term such as 'non-conceptual', by contrast, is a reminder that the nature of the phenomenon under examination is unknown and in need of further analysis.

How, then, does the present account deal with cases such as (46) and (47)? In the cases where an indicative complement is chosen, the proposition expressed is potentially relevant in its own right and thus the report can safely be assumed to be a report of a consistency-aiming mental representation such as belief. When a subjunctive is used, the proposition expressed is not relevant in its own right and the inference that the attitude reported is belief-like is blocked. However, as Ahern & Leonetti point out, it is not immediately clear why a directive interpretation should follow. The subjunctive is also associated with possibility and doubt, for example. Why then, should (47)b, say, not receive an interpretation on which it is an expression of doubt?

One possible solution to this question can be found by considering again the nature of linguistic communication. In acting ostensively, the speaker invites the hearer to attribute to her a mental state on the basis of her behaviour. The basic mental attitudes are belief and desire. Belief is a consistency-aiming form of mental representation; desire is not. Consequently, the objects of desire reports cannot be relevant in their own right. On being presented with a report of an attitude towards a mental representation which is not relevant in its own right, the most accessible assumption is therefore likely to be that this is a report of an expression of a desire, for this is the most basic mental state associated with this type of mental representation. This would explain the so-called suppletive use of the subjunctive exemplified by (49), on which it receives an imperative interpretation (see Silva-Villar 1996 for a discussion of the suppletive/non-suppletive distinction):[15]

(49) a. ¡Coma!

    Form: eat+3SG+SUBJ; Use: second-person singular imperative, formal

    'Eat!'

  b. ¡Coman!

    Form: eat+3PL+SUBJ; Use: second-person plural imperative, formal

    'Eat!'

  c. ¡No coman!

    Form: not eat+3PL+SUBJ; Use: negative second-person plural imperative, formal

    'Don't eat!'

The directive interpretation given to cases such as (49) results, on the current account, because the speaker has expressed a proposition using a form which marks it as not aiming at consistency. Not aiming at consistency is a feature of desire

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[15] In Spanish, the subjunctive is used for all forms of the imperative except the positive second-person singular informal form (where the 3rd person singular present indicative form of the verb is used) and the positive second-person plural informal form (where the stem plus '-ad', '-ed' or '-id' is used).

representations and hence the directive reading is highly accessible. This is not to say that the imperative use of this form is not now standardised, but rather to suggest what drove it to be standardised in this way.

In sum, then, the claim that the subjunctive marks the proposition expressed as not relevant in its own right is able to explain the effects of mood alternation. In belief attributions, mood choice serves to indicate whether the view attributed to another is also held by the speaker. In knowledge attributions, mood choice indicates whether the fact that someone does not have knowledge is due to ignorance or to the absence of knowledge to be had. In verbs reporting expressions of mental states, mood choice serves to indicate whether the mental state attributed relates to belief or desire. Because the indicative presents a proposition as potentially relevant in its own right and hence consistency-aiming, it is able to represent particular worlds and so is suitable for belief expression; because the subjunctive presents the proposition expressed as not relevant in its own right, it does not invite the hearer to process it for consistency and so it is the optimal choice for the expression of and representation of desires.

It is important to stress, though, that while the objects of desire reports are representations of world parts rather than of worlds, that a world part is represented is not what is encoded by the subjunctive complement of a sentence reporting a desire. As always, what is encoded by the subjunctive complement is that the proposition expressed is not presented as relevant in its own right. Representations of world parts are never relevant in their own right, but a proposition's not being *presented* as relevant in its own right does not entail it being a representation of a world part. In a case such as (50) (which was discussed in chapter 2), the proposition expressed by the infinitive complement clearly represents a world. The fact that the complement is non-indicative means, though, that the hearer should not attempt to derive the relevance of the utterance from the embedded proposition but only from the complex proposition.

(50) I believe you to be the best person for the job

While the very nature of 'believe' is an unfailing indicator that the attitude reported is towards a world representation, other predicates are indeterminate concerning whether they are reporting an attitude towards a world-part representation or a world representation. In these cases, the choice of mood is decisive: a subjunctive indicates that the attitude expressed is towards a world-part representation, the indicative that it is towards a world representation, as in (46) and (47) above. In other words, that a proposition is not presented as relevant in its own right may or may not be due to a its being employed as a world-part representation. Presenting a proposition as (not) relevant in its own right is no the only way that representational function may be signalled: it can also be signalled by an embedding predicate, as is the case in (50).

4.4   Information structure

As has been noted throughout this chapter, a major attraction of the assertion/non-assertion approach to the indicative/subjunctive contrast is that it lends itself easily to an analysis of the discourse function for which these forms are exploited. Clear examples of this are the 'el hecho de que' cases exemplified by (23) and (24) (repeated below):

(23)   El hecho de que un cigarrillo sea denominado como bajo en brea o nicotina
        no significa que el cigarrillo contenga menos nicotina
        the fact of that a cigarette be+3SG+SUBJ denominated as low in tar or
        nicotine not signify+3SG+IND that the cigarette contain+3SG+SUBJ less
        nicotine
        'The fact that a cigarette is described as low in tar or nicotine does not mean
        that the cigarette contains less nicotine'

(24)   En Microsoft, nunca perdemos de vista el hecho de que nuestro éxito
        depende del suyo
        in Microsoft, never lose+1PL+IND of sight the fact of that our success
        depend+3SG+IND of.the yours

237

'At Microsoft, we never lose sight of the fact that our success depends on yours'

These provide a neat illustration of how whether information is foregrounded or backgrounded can influence mood choice. Further examples of mood alternation motivated by similar concerns are provided by Lunn (1989a; 1989b; 1992). She points in particular to the habit of journalists of using the past subjunctive '-ra' form in relative clauses where the information is assumed to be known to a readership. The clearest cases are when information given in a headline is repeated in the text of an article. Consider the following, which Lunn (1989b: 252) cites from the magazine *Hola* (26/10/1985):

(51)　a. **Headline:** La bandera que besó es la que, en su día, también besó (IND) el Rey don Juna Carlos, y bordo (IND) su tatarabuela la Reina dona Maria Cristina

'The flag that he kissed is the one that one day King Juan Carlos also kissed and his great-grandmother Queen María Cristina embroidered'

b. **Text:** Y, al **final** besó la bandera roja y gualda que hace treinta años besara (SUBJ) su padre el Rey y que un día bordara (SUBJ) su tatarabula la Reina doña María Cristina

'And, at the end, he kissed the red and gold flag that his father the King kissed thirty years ago, and that his great-grandmother Queen María Cristina once embroidered'

This is a clear example of already manifest information being marked as such by the use of the subjunctive, but Lunn points out that the information thus marked does not necessarily have to be present in the co-text. It is often enough for the writer to assume it to be known to her readers for her to opt for the subjunctive.

Lunn suggests, on the basis of her examples and the more general pattern of distribution of the subjunctive in complement clauses, that subjunctive morphology

serves to mark information as less than optimally relevant (in the sense of Sperber & Wilson) (1989b: 251). This claim is distinct from the view being developed in this thesis, on which the difference between the two moods is accounted for in terms of two distinct types of contribution that can be made towards the overall relevance of the utterance. For Lunn, by contrast, the subjunctive merely marks the information encoded as less worthy of attention than information encoded by a clause with an indicative verb form. While this might work for cases such as (51), it is hard to see how this could account for the use of the subjunctive as an imperative form. One would surely not want to say that utterances such as (52) are less than optimally relevant, nor that in uttering such an imperative "a speaker licenses a hearer to pay a low degree of attention" (Lunn 1989b: 251) to that clause.

(52) ¡No hagas eso!
    not do+2SG+SUBJ that
    'Don't do that!'

On the account developed in this thesis, by contrast, the intuition that the information expressed by clauses containing a subjunctive verb in (51)b is less attention-worthy than other information in the sentence can be explained without having to say that imperative sentences are less worthy of a hearer's attention than declaratives. Recall that in section 4.1 it was pointed out that there are two ways a proposition can fail to be relevant in its own right in a context: either as a constituent of a complex propositional form or by making more accessible a context in which effects can be achieved and, therefore, contributing to the overall relevance of the utterance by reducing processing effort. A restrictive relative clause can play both an informative and a context-activating role. That is to say, on the one hand, it can provide the hearer with information about the referent of the noun phrase it modifies, while on the other, it can reduce processing effort by making the conceptual representation of the referent of the noun phrase more accessible. In (51)a, the relative clause has an informative function (as evidenced by its post-verbal position), and thus one would predict that the indicative would be used, as the writer intends

this information to have implications in its own right (that the flag is one of great historical importance, etc.). The relative clause in (51)b, however, has only an effort-reducing role, identifying the flag as the one familiar to the reader from an earlier part of the text: hence the subjunctive, as this time no implications are intended to be derived from the propositions expressed by the subjunctive clauses. It is fair to say, therefore, that in this case the subjunctive has the effect of marking the information expressed as less worthy of the reader's attention. But the present analysis has gone further than Lunn in that it has shown how this effect is achieved by signalling how the proposition expressed is to be processed. Moreover, it is also able to show how, in an imperative such as (52), the subjunctive, while still encoding a lack of relevance in is own right, can result in a different effect, in this case resulting in the proposition expressed being processed as a constituent of a complex proposition of the form (52)':

(52)' <wants, speaker <not do that, hearer>>

But while restrictive relative clauses can play an effort-reducing role in that they make more accessible the referents of noun phrases, non-restrictive relative clauses do not play this role, as they are only acceptable when the referent is independently identifiable. It is surprising, therefore, to find the subjunctive in cases such as (53):

(53) La pareja, que se hiciera (SUBJ) famosa por interpretar el papel de marido y
    mujer en 'El pájaro espino', es en la vida real un matrimonio feliz
    'The couple, who became famous for their role as husband and wife in 'The
    Thorn Birds', are happily married in real life' (*Hola*, 6/7/85, cited in Lunn
    1989b: 254)

Lunn claims that cases such as these are found when the relative clause contains "old information that assiduous readers might have been expected to know already" (1989b: 254). If this is the case, then in the terms of the present analysis the writer is acknowledging that, for many of her readers, the proposition expressed will not be

relevant in its own right in the most accessible context, as it is already present in that context.

This section has shown how the claim that the subjunctive blocks the proposition expressed being processed as a potential source of relevance in its own right is able to explain the information-structure use of this form. However, although much of this section has dealt with mood choice in relative clauses, perhaps the most commonly made claim relating to mood variation in relative clauses, i.e. that it is related to the referential/attributive distinction, is yet to be discussed. This will be the topic of the next section.

4.5   Relative clauses and the referential/attributive distinction[16]

The most robust observation that has been made about mood selection in relative clauses is that subjunctive relatives are generally licensed by a range of intensional linguistic contexts, and that the proposition expressed by the subjunctive relative falls under the scope of that operator. Examples of the intensional contexts in which subjunctives are found include predicates of desire such as 'querer' ('want'), negation, future tense, interrogatives, conditionals and imperatives. These are illustrated by (54) to (59), which are adapted from Quer (1998: 105-106):

(54) Quiero mandarle regalos que le hagan feliz

want+1SG send.him/her gifts that him/her make+3PL+SUBJ happy

'I want to send him/her gifts that make him/her happy'

(55) No le envío regalos que le hagan triste

not him/her send+1SG gifts that him/her make+3PL+SUBJ sad

'I don't want to send him/her gifts that make him/her sad'

(56) Le mandaré regalos que le sorprendan

him/her send+1SG+FUT that him/her surprise+3PL+SUBJ

'I'll send him/her gifts that will surprise him/her'

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(57) ¿Le mandas regalos que le entretengan?

    him/her send+2SG gifts that him/her entertain+3PL+SUBJ

    'Do you send him/her gifts that entertain him/her?'

(58) Si le mandas regalos que le hagan feliz

    if him/her send+2SG gifts that him/her make+3PL+SUBJ happy

    'If you send him/her gifts that make him/her happy'

(59) Mándale regalos que le hagan feliz

    send.him/her+2SG+IMP that him/her make+3PL+SUBJ happy

    'Send him/her gifts that make him happy'

In the absence of an intensional context, a subjunctive restrictive relative clause is ungrammatical. This is not to say, though, that such contexts necessarily select a subjunctive relative: indicatives are also possible. Indeed, the difference in interpretation between pairs such as (60) and (61) is largely what motivates claims that the indicative/subjunctive contrast in restrictive relative clauses is best explained in terms of the referential/attributive distinction.

(60) Quiero casarme con un chico que tiene ojos azules

    want+1SG marry.myself with a boy that have+1SG+IND eyes blue

    'I want to marry a boy who has blue eyes'

(61) Quiero casarme con un chico que tenga ojos azules

    want+1SG marry.myself with a boy that have+1SG+SUBJ eyes blue

    'I want to marry a boy who has blue eyes'

This distinction, which comes originally from Donnellan (1966), rests on the observation that a description can be used either to refer to a specific individual or object, or to describe an unknown individual or object. Thus, in Donnellan's famous

example (62), 'Smith's murderer' could be a claim either about a specific individual (Jones, say) or, if Smith's murderer is unknown, about whoever murdered Smith.[17]

(62) Smith's murderer is insane

Although originally applied only to definite descriptions, it has been suggested that that the distinction can also be applied to indefinite descriptions (see Rouchota 1994a and references therein). This issue will not be discussed here. Rather, what will be addressed is whether the claim that the subjunctive marks the proposition expressed as not relevant in its own right is capable of explaining the difference in interpretation between cases such as (60) and (61).

In terms of the referential/attributive distinction, the presence of the indicative in the relative clause of (60) requires a referential reading, while in (61) the subjunctive requires an attributive one. That is to say, in uttering (60) the speaker indicates that she has a particular blue-eyed boy in mind, while in uttering (61) she indicates that having blue-eyes is a necessary feature that her future husband must have, whoever he turns out to be.

However, there is a problem with discussing the difference in interpretation between (60) and (61) in terms of the referential/attributive distinction. The modified NPs in these examples are indefinite, indicating that the speaker takes the referent of the NP to be unknown to the hearer (or 'new' rather than 'given'). Therefore, the hearer cannot be said to derive an interpretation of (60) which has a constituent the specific individual referred to by the hearer. Rather, what (60) appears to communicate that (61) doesn't is the implication that a specific referent known to the speaker exists.

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[17] Strictly speaking, one could use the description attributively even if one knew full well who the murderer is. The point is that one is saying something about anyone/whoever satisfies a certain description. In practice, though, this will occur most often when one does not know who the referent is.

This difference in interpretation is best captured not in terms of the referential/attributive distinction but in terms of scope differences. The logical forms of (60) and (61) can be represented as (63) and (64) respectively:

(63) ∃x (boy(x) & blue eyes (x) & WANT (speaker, MARRY (speaker, x)))

(64) WANT (speaker, [∃x (boy(x) & blue eyes (x) & MARRY (speaker, x))])

The crucial difference is that the logical form for the subjunctive example (64) has the existential quantifier within the scope of the intensional operator, while the reverse is the case for (63). This is just the sort of result that is predicted by the current analysis, on which the proposition expressed by an indicative relative clause should be potentially relevant in its own right. A proposition's being relevant in its own right entails that it must be able to have effects on a context independently, and this capacity is what the representation in (63) highlights.

However, the data is not quite so neat, as can be seen when (65) is prefaced by the adverbial 'por fin' ('finally') to form (66):[18]

(65) He encontrado un libro que entiendo/*entienda

have+1SG+IND found a book that understand+1SG+IND/

*understand+1SG+SUBJ

'I have found a book I understand'

(66) Por fin he encontrado un libro que entienda

by end have+1SG+IND found a book that understand+1SG+SUBJ

'I have finally found a book I understand'

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[18] (65) and (66) are based on examples discussed by Ahern & Leonetti (2004).

That the relative clause in (65) is acceptable in the indicative but not in the subjunctive is what one would expect given that one cannot find something that does not exist. The addition of 'por fin' in (66), though, licences the subjunctive and adds another layer of meaning, namely that finding such a book was significantly desirable to the speaker. What is happening here is that there is a tension between the mood choice and the semantics of the embedding clause: one cannot, one the one hand, claim to have found something while, on the other, refusing to acknowledge that thing's existence. This fact forces a specific reading of the modified noun phrase despite mood choice. However, mood choice still needs to be accounted for, and this can be done by deriving an implicature in which the proposition expressed by the subjunctive clause is not relevant in its own right. In the case of (66) this would be something like (67):

(67) Deseaba un libro que entendiese

      want+1SG+IMPERF a book that understand+1SG+SUBJ+PAST

      'I wanted a book I could understand'

4.6   Factive-emotives

As has been indicated on a number of occasions already, the so-called 'factive-emotives' are a significant class of predicates for any analysis of indicative/subjunctive contrast. As the name suggests, these relate to emotional responses to states of affairs and have generally been believed to have the feature of requiring a factive reading of the complement ((4), (5) and (6), repeated below, are examples). Complement selection by these predicates shows significant cross-linguistic variation, with Romanian preferring the indicative (Farkas 1992; 2003), French being happy with both (Farkas 1992), and Spanish and Catalan displaying a strong preference for the subjunctive (Quer 1998).[19]

(4)   Me alegro de que venga

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[19] Although, as Quer (1998) notes, non-Iberian Spanish does seem to be happy with the indicative.

myself please+1SG of that come+3SG+SUBJ

'I'm happy that he's coming'

(5)   Es raro que venga

is strange that come+3SG+SUBJ

'It's strange that he's coming'

(6)   Me sorprende que venga

me surprise+3SG that come+3SG+SUBJ

'I'm surprised that he's coming'

Quer (1998), however, shows that, despite appearances, factivity is not an inherent feature of the lexical semantics of these predicates, which is not to say that they cannot be given a factive interpretation. Quer distinguishes between episodic and generic interpretations and shows how this determines whether the complement is presupposed ((68) and (69) are Spanish versions of Quer's (1998: 95) (9) and (10)):

(68)   Me gustó que los alumnos me hicieran preguntas

me   please+3SG+IND+PAST that the pupils me make+3PL+SUBJ+PAST questions

'I liked it that the students asked me questions'

(69)   Me gusta que los alumnos me hagan preguntas

me please+3SG+IND that the pupils me make+3PL+SUBJ questions

'I like it if the students ask me questions'

As the English glosses suggest, only the episodic complement of (68) is presupposed and receives a factive interpretation. Moreover, as (70) and (71) show, the indicative is possible where this episodic/factive reading results, but not with the non-episodic (generic) reading (these are the Spanish equivalents of Quer's (11) and (12). Quer

marks the Catalan equivalent of (70) as doubtful, but my (Iberian) Spanish-speaking informant finds it quite acceptable.)[20]:

(70) Me gustó que los alumnos me hicieron preguntas

me please+3SG+IND+PAST that the students me make+3PL+IND+PAST

'I liked it that the students asked me questions'

(71) *Me gusta que los alumnos me hacen preguntas

me please+3SG+IND that the students me make+3PL+IND

'I like it that the students ask me questions'

Like Farkas (1992), Quer argues that these complements are interpreted against a modal context. His grounds for this are as follows. Firstly, he argues (as do Bosque 1990; Giorgi & Pianesi 1997; and Heim 1992) that what is crucial to understanding this class of predicates is that the complement clause is presented as the cause of the emotional response described by the matrix clause. This observation alone is not enough for Quer, though, as he needs a model shift if he is to explain the use of the subjunctive here. Consequently, he claims, following Lewis (1973a), that interpreting a causal link requires counterfactual reasoning (i.e. along the lines of 'if P had not happened, Q would not have resulted'). This move allows him to posit a model shift in the case of the non-factive readings of factive-emotive predicates, for interpreting a counterfactual requires reference to a set of worlds (Lewis 1973b). Quer finds support for his view from the fact that non-episodic readings of these predicates are both paraphrasable by conditionals (see, for example, (69)) and

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[20] What is crucial for (70) to be judged acceptable is that it be suitably contextualised. As part of the following sort of dialogue, it is generally judged acceptable:

A: ¿Cómo fue el curso que diste? ('How did the course you gave go?')

B: Muy bien. Me gustó mucho ('Very well. I enjoyed it a lot.')

A: ¿Si? ¿Qué te gustó? (Yes? What did you like about it?)

B: Me gustó que los alumnos me hicieron preguntas, me gustó que....

require a subjunctive complement (which, for him, entails a model shift). Episodic interpretations conceal this inherent modality, he argues, and it is in such situations that the indicative is felt to be acceptable.

While one would not want to deny that causal relationships can to some extent be paraphrased by conditional statements, it is too strong to say that linguistic expressions of causality must therefore be considered modal in nature. In particular, one would expect an understanding of causality to develop much earlier in children than the ability to reason counterfactually, indicating that at a cognitive level at least, the two must be treated distinctly. It also needs to be noted that Quer's sole motivation for adopting a modal analysis of causation is to preserve his account of mood selection, for without this he has no explanation for the mood shift in the subjunctive cases. Moreover, on the sort of Stalnaker/Heim picture that Quer is assuming, the CCPs of causal statements and counterfactuals would be very different. Compare (72) and (73):

(72) I am happy because you are here
(73) If you were not here, I would not be happy

Being an assertion in the indicative mood, (72) will have an effect on the common ground, if accepted, such that it will remove all worlds in which the proposition expressed does not obtain. By contrast, interpreting (73) will require establishing a revised version of the common ground (see Heim 1992: 204).

Thus, while one can agree with Quer, and the other authors who make the same point, that causality is crucial to the analysis of the factive-emotives, it is not necessary to follow him in seeing this as necessitating their analysis as modal statements. Rather, the choice of the subjunctive in the complements of these predicates can be seen as being motivated by a preference for the subjunctive where the proposition is not relevant in its own right because it is either unrealised or

mutually manifest. Where neither of these factors holds, one would expect the indicative, and Quer's data support this view.

What is most convincing about these data is the variation in mood choice after 'what'-clefts. These structures presuppose the information in the 'what'-clause and present the other clause as the main point of the utterance:

(74) What I prefer is for her not to talk to me

(75) What bothers me is that she doesn't talk to me

Notice that being the main point, in this sense, does not equate with a proposition's being relevant in its own right. The proposition expressed by 'for her not to talk to me' in (74) cannot be relevant in its own right as it is presented as unrealised and therefore not intended to have an effect on any context in its own right. Contrast this with 'that she doesn't talk to me' in (75): the episodic nature of this proposition means that it is potentially relevant in its own right, though whether the speaker wishes to present it as such will depend largely on whether the hearer is aware of this episode. If the speaker does want to present it as relevant in its own right, he should use the indicative mood.

With the Spanish equivalents of (74) and (75) in non-clefted structures, only the subjunctive is acceptable:

(74)' Prefiero que no me hable/*habla

     Prefer+1SG+IND that not me speak+3SG+SUBJ/*speak+3SG+IND

     'I prefer for her not to speak to me'

(74)' Me preocupa que ella no me hable/*habla

     me worry+3SG+IND that not she me speak+3SG+SUBJ/*speak+3SG+IND

     'I'm worried that she doesn't talk to me'

In the clefted versions, however, the indicative is acceptable in the case in which it is possible for the complement to be relevant in its own right, as (74)" and (75)" (which are based on Quer's (1998: 101) (36) and (34)) show:

(74)" Lo que prefiero es que ella no me hable/*habla

    it that prefer+1SG+IND be+3SG+IND that she not me

    speak+3SG+SUBJ/*speak+3SG+IND

    'What I prefer is for her not to talk to me'

(75)" Lo que me preocupa es que ella no me hable/habla

    it that me worry+3SG+IND be+3SG+IND that she not

    speak+3SG+SUBJ/speak+3SG+IND

    'What worries me is that she won't talk to me'

Note that opting for the subjunctive in (75)" would be a result of both the fact that something is worrying the speaker and the fact that the female in question won't speak to her being mutually manifest. In this case, the main relevance of the utterance lies in the causal relationship between these two manifest states of affairs, a relationship not manifest to the hearer prior to the utterance of (75)". The indicative will be chosen when neither the fact that the female in question is not talking to the speaker nor the fact that this is a cause for concern is manifest to the hearer. In other words, both the complex proposition expressed by the whole utterance and the proposition expressed by the 'that'-clause are relevant in their own right.

The choice of the subjunctive in syntactically unmarked factive-emotives is likely to be due to a preference to indicate a causal relationship between two propositions by presenting them as relevant only as a complex proposition, especially if there is no other marker of causality or the causal relationship is ambiguous. Consider, for example, the following data, from Lunn (1992):

(76) El mundo no va dejar de girar porque me hayan dado el Nobel (remark attributed to Camilo José Cela by Lunn)

the world not go+3SG stop of turn because me have+3PL+SUBJ given the Nobel

'The world's not going to stop turning because they've given me the Nobel'

The motivation for (76) is, according to Lunn, modesty: by expressing in the subjunctive mood the fact that he has won the Nobel Prize, Cela downplays its importance. This can be explained by the hypothesis that the subjunctive marks information as not presented as relevant in its own right, for by expressing information in this way the speaker distracts attention from it while remaining committed to it by virtue of the factive connective 'porque' ('because').

However, there is another explanation of Cela's choice of mood that Lunn does not mention. The English translation of (76) is ambiguous (depending on intonation) between (77) and (78):

(77) [Not[the world is going to stop turning]] because they've given me the Nobel

(78) Not[the world is going to stop turning because they've given me the Nobel]

In (77), the fact that the world is not going to stop turning is presented as the result of Cela having been awarded the Nobel prize, while in (78) the idea that the world could stop turning because he has been awarded a Nobel is denied. Clearly the latter is Cela's intended meaning and the use of the subjunctive ensures that this is the only possible interpretation. On the current analysis: the fact that the 'because'-clause is in subjunctive mood means that the propositional form it represents must be treated as contributing to the relevance of the utterance as a constituent of a more complex representation, not as a relevant constituent in its own right. This analysis can be extended to the factive-emotives: because the proposition expressed by the complement is presented as causally related to the proposition expressed by the main

clause, it is not presented as relevant in its own right but as a constituent of a complex proposition.

4.7   Causative predicates

The hypothesis that the subjunctive is chosen for complement clauses when there is a causal relationship is further supported by the fact that causative predicates mandatorily select the subjunctive. This applies both to clear causatives such as 'evitar' ('avoid') and 'conseguir' ('manage') and verbs of helping and letting such as 'ayudar' ('help') and 'dejar' ('allow', 'let') (Quer 1998: 46-50):

(79) Evitó que los estudiantes le engañaran

avoid+3SG+PST that the students him deceive+3PL+PST+SUBJ

'He stopped the students deceiving him'

(80) Consiguió que todos sus alumnos aprobasen

manage+3SG+PST that all his pupils pass+3PL+PST+SUBJ

'He managed to ensure that all of his pupils passed.'

(81) La acreditación ayudó a que cada profesional conociera mejor su labor

the   accreditation   help+3SG+PST   to   that   each   professional know+3SG+PST+SUBJ better his/her work

'The accreditation helped each professional to understand his/her job better'

(82) Dejó que los alumnos saliesen antes

let+3SG+PST that the pupils go.out+3PL+PST+SUBJ before

'She let the pupils out early'

But while providing some support for the present analysis, this type of construction also provides a challenge, as the proposition expressed by the complement clause is potentially relevant in its own right: the speaker of any one of (79) to (82) could intend both the proposition expressed by the complement clause and the complex proposition in which it is embedded to result in contextual effects. There is no requirement that the proposition expressed by the complement clause be common ground and, unlike in the case of the factive-emotives, there is no option to shift to

the indicative if the speaker wishes to emphasise the relevance in its own right of the complement. This raises, then, a problem: the prediction is that the propositions express by the complement of such verbs, due to their being expressed by a clause with a subjunctive verb form, should not be relevant in their own right. The data, however, are inconsistent with this hypothesis. And, unlike the German and Italian cases exemplified by (44) and (45), there is no effect explainable in terms of a lack of relevance in a highly accessible context.

One possible solution to this problem is to suggest that the complements of these constructions are processed in a different way to those which have an indicative complement. It has been suggested that the computational system which processes incoming utterances blindly attempts to process any proposition expressed by an indicative in the most accessible context, regardless of whether it is embedded or not (see chapter 3, section 2.3.3). In other words, the semantics of the embedding predicate does not determine whether an indicative clause is processed for relevance in its own right. Rather, the system will attempt to process any proposition expressed by an indicative in an accessible context, regardless of its embedding predicate. Where an embedded indicative has greater effects than the clause in which it is embedded, then a parenthetical interpretation of the utterance results, whether the utterance is syntactically parenthetical or not.

The fact that causative predicates such as (79) to (82) do not have equivalent parenthetical constructions suggests that the way the proposition expressed by the complement is processed differs from that which has been posited for indicative complements. Rather than automatically processing the proposition expressed by the complement for relevance in an accessible context, in these cases the system processes only the indicative main clause and derives the proposition expressed by the complement as an entailment. Thus, in processing an utterance containing an indicative complement, such as (14)a (repeated below), the system will blindly seek to derive effects both from the complex proposition expressed by the whole utterance, and from the embedded proposition, devoting most resources to that

which provides greatest effects. In processing an utterance such as those exemplified by (79) to (82), by contrast, the system will seek to derive effects only from the proposition expressed by the whole clause, one effect being the derivation of the proposition expressed by the embedded clause.

(14) a. Se ha enterado de que viene

       REFL has found-out of that come+3SG+IND

       'She's found out that he's coming'

There are two factors which lend support to this view. First, unlike other predicates which entail their complements, the truth of the complement of a causative results from the relationship between the embedding predicate and its complement. Compare (83) and (84), both of which entail (85):

(83) Pedro sabía que Juan había mentido

      Peter know+3SG+IMPF that John have+3SG+IMPF lied

      'Peter knew that John had lied'

(84) Pedro hizo que Juan mintiera

      Peter make+3SG+PST that John lie+3SG+PST+SUBJ

      'Peter made John lie'

(85) Juan mintió

      John lie+3SG+PST

      'John lied'

While the speaker of (83) is not claiming any dependency between Peter being in a state of knowing and John's having lied, the speaker of (84) is indeed claiming a dependency between the proposition expressed by that utterance and that expressed by (85). In other words, the entailment relationship is distinct in each case. This can be seen most clearly by comparing their negations:

(86) Pedro no sabía que Juan había/hubiera mentido

254

Peter not know+3SG+IMPF that John have+3SG+IMPF/+SUBJ lied

'Peter didn't know whether/that John had lied'

(87) Pedro no hizo que Juan mintiera

Peter not make+3SG+PST that John lie+3SG+PST+SUBJ

'Peter didn't make John lie'

As noted in section 2, (86) has the possibility of an indicative complement, in which case the speaker is still committed to (85). With the subjunctive complement, by contrast, the commitment to (85) disappears, as it does with (87) (which is not to say that the truth of (85) is necessarily denied in these cases: there is simply a lack of linguistically-determined speaker commitment). In other words, the clausal entailment of a positive knowledge or acquisition-of-knowledge verb has a life of its own, as evidenced by the fact that it can survive the negation of the embedding predicate. The complement of a causative, by contrast, is dependent on its embedding predicate for its survival as an entailment. This lends support to the view that the complements of positive causatives are not automatically processed as candidates for relevance in their own right but that, rather, the complex proposition is processed for relevance in its own right, and one way it achieves this is through the implications of the entailed embedded clause.

The second factor in support of this hypothesis is the fact that, unlike indicative complements, the relevance of the subjunctive complement of a causative must result from its implications in the same context as that in which the embedding predicate achieves relevance. In (88) the embedded proposition is likely to be relevant only in an embedded context constituting a representation of Peter's deranged world view. The embedding proposition, by contrast, will achieve relevance in a factive context. Recall that this is not necessarily the case with 'think'-sentences. In a context where Peter is known to be an expert weather forecaster, the embedded proposition in (89) is likely to achieve relevance in a factual context.

(88) Peter thinks that his mother is an alien

(89) Peter thinks that it will rain tomorrow

In the case of the causatives, this flexibility over the context for the processing of the embedded proposition does not exist. They can only be processed in the same context as the embedding proposition. It thus seems fair to assume that the embedded proposition is derived as part of the process of calculating the implications of the embedding proposition, rather than being automatically processed for relevance in its own right, which is what, it is suggested, happens to propositions expressed by indicative clauses.

If this analysis is correct, then the proposition expressed by the complement of a positive causative predicate is not relevant in its own right in the same way that has been posited for indicative complements. These, it has been argued, are automatically processed for relevance in the most accessible context, regardless of the semantics of the embedding predicate. Causative complements, by contrast, are derived as entailments of the complex proposition of which they are a constituent. Such an implication may then go on to have implications in its own right, but the route by which it comes to do so is distinct from that followed by propositions expressed by indicatives.

5   CONCLUSION

This chapter has both reviewed a range of approaches to tackling the problems of mood alternation in Spanish and proposed an alternative account. The assertion/non-assertion approach was shown to be stimulating and insightful, but ultimately undermined by relying on an intuitive notion of assertion as a theoretical primitive. Moreover, identifying a notion of assertion to serve both the aim of explaining mood alternation and of providing an adequate analysis of the act of asserting proved impossible.

Part of the initial attraction of the assertion/non-assertion approach was that it suggested a way of developing a unified explanation of the information-structure effects of mood alternation and its truth-conditional effects. The section on model-theoretic approaches to mood selection showed that while these provide valuable insights into the semantic effects on interpretation that mood has, they have little to say about the information-structure uses. The one exception to this is Quer, who seeks to explain mood alternation in terms of model-shift and is therefore able to suggest that mood switches motivated by information-structure indicate a shift in the model of evaluation to that of the common ground. However, Quer's account is predicated on a view of normal assertions as being interpreted against a model of the speaker's epistemic state. This was shown to be an untenable position, not least because it puts linguistic communication beyond those speakers, such as three-year old children, who are unable to attribute belief states.

The positive proposals made in this chapter follow directly from claims made in the previous chapter, where it was argued that what is unique about the indicative mood is the potential of the proposition expressed to affect a context in its own right. As an instance of the non-indicative, the subjunctive is predicted to be incapable of presenting the proposition expressed as relevant in its own right. This has been shown to explain both the truth-conditional and information-structure effects of the subjunctive: in neither case does the proposition expressed have an effect on the context in its own right. In truth-conditional cases, only the proposition expressed by the embedding complex propositional form will have an effect on the context, while in the information-structure cases, the result will be simply to make more accessible certain contextual assumptions, thereby contributing to relevance by reducing effort rather than by increasing contextual effects.

Thus, the ability of the present account to handle these data lends it further credence. It has already been shown to mesh comfortably with important philosophical insights into the nature of assertion, such as its role as a form of perception by proxy.

In this chapter, it has met the challenge of explaining important empirical observations relating to mood alternation in Spanish.[21]

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[21] De Bustos & Aliaga express a view of the indicative/subjunctive contrast that is very sympathetic to the one developed in this chapter. On their view, the indicative serves to add to the consistency of the context, while the subjunctive leaves it unaltered (Aliaga & de Bustos 2002; de Bustos & Aliaga 1996). It has not been discussed in this chapter, however, because it appears never to have been worked through in any detail. In particular, there is no discussion of the nature of the context or the manner by which it is affected by the indicative, other than suggesting that this might be done using Fauconnier's (1985) mental spaces framework

CONCLUSION

1 WHAT IS ASSERTION?

The view developed and defended in this thesis is that assertion is best analaysed in terms of explicitness, relevance and truth. Acts of assertion involve employing, in linguistic communication, a particular type of linguistic form in a manner such that the proposition expressed by that form will have an effect on the hearer's representation of the world in its own right. The linguistic form – i.e. the indicative mood – is unique in having the potential to present the proposition expressed as relevant in its own right in an accessible context. When the most accessible context is formed of the hearer's basic, unreflective beliefs about the actual world, then the proposition expressed is presented as relevant to an individual in its own right, and assertoric effects follow.

Acts of assertion are thus distinguished from other speech acts by the fact that not only is the act itself presented as relevant to the hearer, but so is the proposition expressed by the form used to perform the act. Explicitness is therefore a central feature of assertion: the speaker explicitly expresses the proposition form which the speaker is expected to derive the intended effects. This distinguishes assertion from directives performed by the use of an imperative, for example, which derive their effect from the fact that the speaker has expressed that proposition, rather than from the proposition itself. Explicitness also distinguishes what is asserted from what is presupposed: the assumption of uniqueness communicated by a definite noun-phrases, for example, is not explicitly expressed. In cases where a presupposed proposition is explicitly expressed, as in the complements of certain factive constructions, the subjunctive or another non-indicative tends to be used where languages have this option.

Another crucial feature of assertions is their representational nature. It should be clear by now that propositionhood alone is not enough for a form to serve as a representation of a particular world. The fact that a form expresses a proposition

259

merely endows it with the propensity to pick out a set of worlds. In order for it to serve as a representation of a particular world, a form not marked explicitly as such must aim at consistency with other propositional forms so that it may be used to reduce uncertainty about the nature of the world it represents by excluding, though the search for consistency, incompatible candidate worlds.

Because the proposition expressed by an indicative clause is capable of having an effect in its own right on a context formed of the hearer's most basic assumptions about the world, it is therefore capable of being relevant to the speaker in its own right. It is this which gives it the potential to commit the speaker to the truth of the proposition expressed. That is to say, the fact that assertoric uses of the indicative mood commit the speaker to the truth of the proposition expressed follows on grounds of rationality: to be relevant in such a context (given its function of representing the world), a proposition must normally be true; a rational speaker must therefore take to be true that which she presents as relevant in such a context. It is from this that the association of responsibility and assertion stems, for, in asserting, a speaker offers not only information but presents herself as the source of that information.

The fact that the content of assertions is intended to have a direct effect on the hearer's representation of the world also underlies its functional characterisation - i.e. assertion as a form of perception by proxy or information transfer. Looked at in this way, assertion and the forms specified for its use exist because of its role in allowing humans to benefit from information acquired not only via their own perceptual organs, but also from the experiences of others.

A system may treat a proposition as true by virtue of it being held in an assertoric mode of presentation. This notion of an assertoric mode of presentation is what is at play in Frege's use of an assertion sign in his logical symbolism and in Sperber & Wilson's notion of a factual assumption as one which is treated as true by the cognitive system by virtue of its format. This mode of presentation is related to, but

distinct from, the act of assertion: making an assertion presents a proposition as worthy of being entertained in an assertoric mode of commitment, while the use of certain 'as'-parentheticals, as Green points out, can indicate that a proposition is entertained under an assertoric mode of presentation without performing an assertion.

The act of assertion is related to the indicative mood through this form's ability to present a proposition as relevant in its own right. Relevance entails consistency, and consistency is what enables a propositional form to represent a particular world. Being a representation, such a propositional form can be assessed as true or false in the world represented. Thus, the aim for consistency is the factor that unites acts of assertion, the indicative mood and assertoric modes of presentation.

2   REPRESENTATION AND LINGUISTIC MEANING

Chapter 1 highlighted the claim made by Dummett that a theory of meaning based on truth needs to be grounded in a theory of assertion, for only through the act of assertion, Dummett says, is it possible to characterise what it means to take something as true. All that a truth based theory which makes no reference to assertion can hope for, Dummett argues, is to be a theory of Fregean sense.

A related point emerges from this thesis. Truth-conditional theories of linguistic meaning generally make no use of the notion of representation. That is to say, truth-conditional approaches to semantics attempt to account for linguistic meaning by formulating mapping rules from sentences to models or from sentences to in an object language to sentences in a metalanguage. The representational function of the forms that express propositions is rarely considered. The reason for this no doubt stems from desire, dating back to Frege, to keep psychology out of semantics, for once representation is allowed to play a role in semantic theory, it becomes hard to

exclude the psychological notion of intention: what makes something a representation depends on the intention with which it is used.[1]

However, a central claim of this thesis is that the uniqueness of the indicative mood cannot be explained except by recourse to its representational potential. The indicative is unique in having assertoric potential, and is preferred for belief reports and fictions, because the propositional forms it gives rise to when processed aim at consistency and are therefore able to serve as representations of particular worlds. Accounts of the indicative which fail to consider its representational potential flounder because they are unable to distinguish it adequately from other moods, such as the infinitive and the subjunctive.

On the language-first story of belief attribution put forward in chapter 2, section 3, it is the representational nature of assertions that children must grasp before they can attribute false beliefs to others. This is because grasping the notion of representation is essentially grasping the notion of truth and falsity. To treat an assertion as a representation rather than as information is to understand that it might be false. The next step is to realise that false representations can guide behaviour in the way that true ones can. On this view, then, it is because assertions are public representations that they are conceptually prior to beliefs, which are private representations.

It might be argued that, as assertion relates to the use of language, the fact that it has a representational core is of no threat to semantic theory, which can leave the study of assertion to pragmatics. However, what is at issue is the contribution to meaning played by a linguistic form, i.e. the indicative mood. And what has been argued in this thesis is that the contribution made by the indicative cannot be explained except by recourse to its representational potential. Thus, this potential, at least, must be

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[1] Though as was noted in chapter 2 function can also be determined by evolutionary considerations.

taken into consideration by truth-conditionalists (which is not necessarily to say that one has to go as far as Barker and reject the whole Fregean project).

Thus, there are two reasons that semanticists need to take the notion of assertion – and hence representation – seriously. The first is that, according to Dummett, if they don't, then they don't have a theory of truth in which to ground their semantic theories. The second is that, as shown by this thesis, if they don't, then they won't be able to account for the contribution to meaning made by the indicative mood.

REFERENCES

Abbott, B. (2000) Presuppositions as nonassertions. *Journal of Pragmatics* 32: 1419-1437.

Ahern, A. & M. Leonetti (2004) The Spanish subjunctive: Procedural semantics and pragmatic inference. In Márquez-Reiter, R. & M. E. Placencia (eds) *Current trends in the pragmatics of Spanish*. Amsterdam: John Benjamins.

Aliaga, F. & E. de Bustos (2002) Mental spaces and epistemic attitudes: On the Spanish subjunctive/indicative alternation. In Gutiérrez-Rexach, J. (ed) *From words to discourse: Trends in Spanish semantics and pragmatics*. Amsterdam: Elsevier, 135-144.

Alston, W. P. (2000) *Illocutionary acts and sentence meaning*. Ithaca, NY: Cornell University Press.

Austin, J. L. (1976) *How to do things with words*. 2nd edn. Oxford: OUP.

Barker, S. (2003) Truth and conventional implicature. *Mind* 112(445): 1-33.

Barker, S. J. (2004) *Renewing meaning*. Oxford: OUP.

Baron-Cohen (1995) *Mindblindness*. Cambridge MA: MIT Press.

Beaver, D. I. (2001) *Presupposition and assertion in dynamic semantics*. Stanford: CSLI.

Blakemore, D. (1987) *Semantic constraints on relevance*. Oxford: Blackwell.

Blakemore, D. (1990/91) Performatives and parentheticals. *Proceedings of the Aristotelian Society* 91: 197-213.

Blakemore, D. (2000) Indicators and procedures: *nevertheless* and *but*. *Journal of Linguistics* 36: 463-486.

Blakemore, D. (2004) *Relevance and linguistic meaning: The semantics and pragmatics of discourse markers*. Cambridge: CUP.

Bloom, P. (2002) Mindreading, communication and the learning of names for things. *Mind and Language* 17(1 & 2): 37-54.

Bolinger, D. (1968) Postposed main phrases: An English rule for the Romance subjunctive. *Canadian Journal of Linguistics* 14(1): 3-30.

Bosque, I. (1990) Las bases gramaticales de la alternancias modal. Repaso y balance. In Bosque, I. (ed) *Indicativo y subjuntivo*. Madrid: Taurus Universitaria.

Brandom, R. (1983) Asserting. *Noûs* 17(4): 637-650.

Brandom, R. (1994) *Making it explicit: Reasoning, representing, and discursive commitment*. Cambridge, MA: Harvard University Press.

Breheny, R. (2003) On the dynamic turn in the study of meaning and interpretation. In Peregrin, J. (ed) *Meaning: The dynamic turn*: Elsevier.

Breheny, R. (forthcoming) Communication and folk psychology. *Mind and Language*.

de Bustos, E. & F. Aliaga (1996) Indicative, subjunctive and context. In Gutiérerez-Rexach, J. & L. Silva-Villar (eds) *Perspectives on Spanish linguistics*. Los Angeles: UCLA. 1, 15-33.

Call, J. & M. Tomasello (1999) A nonverbal false belief task: The performance of children and great apes. *Child Development* 70(5): 381-395.

Carruthers, P. (2005) The case for massively modular models of mind. In Stainton, R. (ed) *Contemporary debates in cognitive science*. Oxford: Blackwell.

Carston, R. (2002a) Linguistic meaning, communicated meaning and cognitive pragmatics. *Mind and Language* 17(1 & 2): 127-148.

Carston, R. (2002b) *Thoughts and utterances: The pragmatics of explicit communication*. Oxford: Blackwell.

Clark, B. (1991) *Relevance theory and the semantics of non-declaratives*. PhD thesis, University of London.

Clément, F., M. Koenig & P. L. Harris (2004) The ontognesis of trust. *Mind and Language* 19(4): 360-379.

Coady, C. A. J. (1992) *Testimony*. Oxford: OUP.

Cosmides, L. & J. Tooby (2000) Consider the source: The evolution of adaptation for decoupling and metarepresentations. In Sperber, D. (ed) *Metarepresentations: A multidisciplinary perspective*. Oxford: OUP.

Davidson, D. (1967/2001) Truth and meaning. In *Inquiries into truth and interpretation*. Oxford: OUP, 17-42. Originally published in *Synthese* 17: 304-323.

Davidson, D. (1979/2001) Moods and performances. In *Inquiries into truth and interpretation*. Oxford: OUP, 109-121. Originally published in Margalit, A. *Meaning and use* Dordecht: Reidel.

Davidson, D. (1984/2001) Communication and convention. In *Inquiries into truth and interpretation*. Oxford: OUP, 265-280. Originally published in *Synthese*, 59: 3-17.

Donnellan, K. (1966) Reference and definite descriptions. *Philosophical Review* 75: 52-64.

Dummett, M. (1981) *Frege: Philosophy of language*. 2nd edn. London: Duckworth.

Dummett, M. (1993) Mood, force and convention. In *The seas of language*. Oxford: Clarendon Press.

Dummett, M. (1995) *The logical basis of metaphysics*. London: Duckworth.

Farkas, D. (1985) *Intensional descriptions and the Romance subjunctive mood*. New York: Garland.

Farkas, D. (1992) On the semantic of subjunctive complements. In Hirschbuher, P. (ed) *Romance languages and modern linguistic theory*. Amsterdam: John Benjamins, 69-104.

Farkas, D. (2003) Assertion, belief and mood choice. Paper presented at ESSLLI, Conditional and Unconditional Modality Workshop, Vienna.

Fauconnier, G. (1985) *Mental spaces*. Cambridge: CUP.

Fodor, J. A. (1981) *Representations*. Hassocks: Harvester Press.

Fodor, J. A. (1983) *The modularity of mind*. Cambridge, MA: MIT Press.

Fodor, J. A. (1998) *Concepts: Where cognitive science went wrong*. Oxford: OUP.

Frege, G. (1918-19/1997) Thought/Der Gedanke. In Beaney, M. (ed) *The Frege reader*. Oxford: Blackwell, 325-345. Originally published in *Beiträge zur Philosophie des deutchen Idealismus* I: 58-77.

García-Carpintero, M. (2004) Assertion and the semantics of force-markers. In Bianchi, C. (ed) *The semantics/pragmatics distinction*. Chicago: CSLI Publications, 133-166.

Geach, P. (1965) Assertion. *The Philosophical Review* 74: 449-465.

Geach, P. (1976) Saying and showing in Frege and Wittgenstein. *Acta Philosophica Fennica* 28: 57-70.

Ginet, C. (1979) Performativity. *Linguistics and Philosophy* 3(245-265).

Giorgi, A. & F. Pianesi (1997) *Tense and aspect: From semantics to morphosyntax*. Oxford: OUP.

Green, M. S. (1997) On the autonomy of linguistic meaning. *Mind* 106: 217-243.

Green, M. S. (2000) Illocutionary force and semantic content. *Linguistics and Philosophy* 23: 435-473.

Green, M. S. (2002) The inferential significance of Frege's assertion sign. *Facta Philosophica* 4(2): 201-229.

Grice, P. (1989) *Studies in the way of words*. Harvard: University Press.

Grice, P. (2001) *Aspects of Reason*: Clarendon Press.

Guitart, J. M. (1991) The pragmatics of Spanish mood in complements of knowledge and acquisition-of-knowledge predicates. In Fleischman, S. & L. R. Waugh (eds) *Discourse pragmatics and the verb: The evidence from Romance*. London: Routledge, 179-193.

Hare, R. (1970/1971) Meaning and speech acts. In *Practical inferences*. London: Macmillan, 74-93. Originally published in *Philosophical Review* LXXIX.

Hare, R. (1971) Appendix. In *Practical inferences*. London: Macmillan, 22-24. Originally published in 'Practical Reason' unpublished thesis, 1950.

Hare, R. (1989) Some subatomic particles of logic. *Mind* 98: 23-37.

Harnish, R. M. (1994) Mood, meaning and speech acts. In Tsohatzidis, S. (ed) *Foundations of speech act theory: Philosophical and linguistic perspectives*. London: Routledge.

Harris, P. L. (2002) Checking our sources: the origins of trust in testimony. *Studies in History and Philosophy of Science Part A* 33(2): 315-333.

Harris, P. L. (2004) What do children learn from testimony? In Carruthers, P., M. Siegal & S. Stich (eds) *Cognitive bases of science*. Cambridge: CUP.

Heim, I. (1988) *The semantics of definite and indefinite noun phrases*. New York: Garland.

Heim, I. (1992) Presupposition projection and the semantics of attitude verbs. *Journal of Semantics* 9: 183-221.

Hintikka, J. (1962) *Knowledge and belief*. Ithaca, NY: Cornell University Press.

Hooper, J. (1975) On assertive predicates. In Kimball, J. P. (ed) *Syntax and semantics 3: Speech acts*. London: Academic Press, 91-124.

Hornsby, J. (1986) A note on non-indicatives. *Mind* 95: 92-99.

Humberstone, I. L. (1992) Direction of fit. *Mind* 101(401): 59-83.

Huntley, M. (1984) The semantics of the English imperative. *Linguistics and Philosophy* 7: 103-133.

Ifantidou, E. (2001) *Evidentials and relevance*. Amsterdam: John Benjamins.

James, F. (1986) *Semantics of the English subjunctive*. Vancouver: University of British Colombia Press.

Kadmon, N. (2000) *Formal pragmatics*. Oxford: Blackwell.

Kamp, H. (1981) A theory of truth and semantic representation. In Groenendijk, J., T. Janssen & M. Stokhof (eds) *Formal methods in the study of language, Part 1*. Amsterdam: Mathematical Centre Tracts. 135, 277-322.

Kaplan, D. (1978) On the logic of demonstratives. *Journal of Philosophical Logic* 8: 81-98.

Kempson, R. (1975) *Presupposition and the delimitation of semantics*. Cambridge: CUP.

Krakuskin, M. & A. Cedeño (1992) Selección del modo después de 'el hecho de que'. *Hispania* 75: 1289-1293.

Lambrecht, K. (1994) *Information structure and sentence form*. Cambridge: CUP.

Larson, R. & G. Segal (1997) *Knowledge of meaning: An introduction to semantic theory*. Cambridge, MA: MIT Press.

Lavandera, B. R. (1983) Shifting moods in Spanish discourse. In Klein-Andreu, F. (ed) *Discourse perspectives on syntax*. London: Academic Press, 209-236.

Leslie, A. M. (1987) Pretense and representation: The origins of "theory of mind".
Psychological Review 94: 412-426.

Levinson, S. C. (1983) *Pragmatics*. Cambridge: CUP.

Lewis, D. (1970) General semantics. *Synthese* 22: 18-67.

Lewis, D. (1973a) Causation. *Journal of Philosophy* 70: 556-567.

Lewis, D. (1973b) *Counterfactuals*. Oxford: Blackwell.

Lewis, D. (1975) Languages and language. In Gunderson, K. (ed) *Minnesota Studies
in the Philosophy of Science*. Minnesota: University of Minnesota Press. VII.

Lillard, A. S. (1993) Young children's conceptualization of pretense: Action or
mental representational state? *Child Development* 64: 327-386.

Liszkowski, U., M. Carpenter, T. Striano & M. Tomasello (in press) Twelve- and
18-month-olds point to provide information for others.

Lunn, P. V. (1989a) Spanish mood and the prototype of assertabilty. *Linguistics* 27:
687-702.

Lunn, P. V. (1989b) The Spanish subjunctive and 'relevance'. In Kirschner, C. & J.
de Cesaris (eds) *Studies in Romance linguistics*. Amsterdam: John
Benjamins, 249-260.

Lunn, P. V. (1989a) Spanish mood and the prototype of assertabilty. *Linguistics* 27:
687-702.

Lunn, P. V. (1992) The evaluative function of the Spanish subjunctive. In Bybee, J.
& S. Fleischman (eds) *Modality and grammar in discourse*. Amsterdam:
John Benjamins.

McCawley, J. D. (1981) *Everything that linguists have always wanted to know about
logic . . . but were ashamed to ask*. Oxford: Blackwell.

McGinn, C. (1977) Semantics for non-indicative sentences. *Philosophical Studies*
12: 301-311.

Mejías-Bikandi, E. (1994) Assertion and speaker intention: A pragmatically based
account of mood in Spanish. *Hispania* 77: 892-902.

Mejías-Bikandi, E. (1995) Presupposition inheritance and mood in Spanish. In
Hashemipour, P., R. Maldonado & M. van Naerssen (eds) *Studies in*

Language Learning and Spanish Linguistics in Honor of Tracy D. Terrell. New York: McGraw-Hill, 375-384.

Mejías-Bikandi, E. (1996) Space accessibility and mood in Spanish. In Fauconnier, G. & E. Sweetser (eds) *Spaces, worlds and grammar*. Chicago: University of Chicago Press.

Mejías-Bikandi, E. (1998) Pragmatic presupposition and old-information in the explanation of the use of the subjunctive mood in Spanish. *Hispania* 81: 941-948.

Mejías-Bikandi, E. (2002) Space accessibility and the pragmatic status of propositions. In Gutiérrez-Rexach, J. (ed) *From words to discourse: Trends in Spanish semantics and pragmatics*. Amsterdam: Elsevier, 145-158.

Millikan, R. (1984) *Language, thought and other biological categories*. Cambridge, MA: MIT Press.

Millikan, R. (1993) In defense of proper function. In Millikan, R. (ed) *White queen psycholgy and other essays for Alice*. Cambridge, MA: MIT.

Millikan, R. (2002) Purposes and cross-purposes: On the evolution of languages and language. *The Monist* 84(3).

Millikan, R. (2004) *The Varieties of meaning: The 2002 Jean Nicod lectures*. Cambridge, MA: MIT Press.

Millikan, R. (forthcoming) Semantics/pragmatics: Purposes and cross-purpses. In *Language: A Biological Model*. Oxford: Clarendon Press.

Noël, D. (1997) The choice between infinitives and *that*-clauses after *believe*. *English language and linguistics* 1(2): 271-284.

Origgi, G. & D. Sperber (2000) Evolution, communication, and the proper function of language. In Carruthers, P. & A. Chamberlain (eds) *Evolution and the human mind: Language, modularity and social cognition*. Cambridge: CUP, 140-169.

Pendelbury, M. (1986) Against the power of force: Reflections on the meaning of mood. *Mind* 95: 361-372.

Pinker, S. (1998) *How the mind works*. London: Penguin.

270

Portner, P. (1997) The semantics of mood, complementation and conversational force. *Natural Language Semantics* 5(2): 167-212.

Quer, J. (1998) *Mood at the interface*. The Hague: Holland Academic Graphics.

Quer, J. (2001) Interpreting mood. *Probus* 13: 81-111.

Rakoczy, H., M. Tomasello & T. Striano (2004) Young children know that trying is not pretending: As test of the "behaving-as-if" construal of children's early concept of pretense. *Developmental Psychology* 40(3): 388-399.

Recanati, F. (1987) *Meaning and force: The pragmatics of performative utterances*. Cambridge: CUP.

Recanati, F. (2002) Does linguistic communication rest on inference? *Mind and Language* 17(1 & 2): 102-126.

Recanati, F. (2004) *Literal meaning*. Cambridge: CUP.

Rosales Sequeiros, X. (2002) Non-declarative sentences in Spanish: The case of the infinitive. In Gutiérrez-Rexach, J. (ed) *From words to discourse: Trends in Spanish semantics and pragmatics*. Amsterdam: Elsevier, 95-118.

Rouchota, V. (1994a) On indefinite descriptions. *Journal of Linguistics* 30: 441-475.

Rouchota, V. (1994b) *The semantics and pragmatics of the subjunctive in modern Greek - a relevance theoretic approach*. PhD thesis, University of London.

Rouchota, V. (1994c) The subjunctive in modern Greek: Dividing the labour between semantics and pragmatics. *Journal of Modern Greek Studies* 12: 185-201.

Russell, B. (1905) On denoting. *Mind* 14: 479-493.

Russell, B. (1957) Mr Strawson on referring. *Mind* 66: 385-389.

Segal, G. (1990) In the mood for a semantic theory. *Proceedings of the Aristotelian Society* 91: 103-118.

Silva-Villar, L. (1996) Suppletive and non-suppletive imperatives. In Gutiérerez-Rexach, J. & L. Silva-Villar (eds) *Perspectives on Spanish linguistics*. Los Angeles: UCLA. 1, 153-181.

Smith, N. J. (2000) Frege's judgement stroke. *Australasian Journal of Philosophy* 78: 153-175.

Sperber, D. (1984) Verbal irony: Pretense or echoic mention. *Experimental psychology: General* 113(1): 130-136.

Sperber, D. (1994a) The modularity of thought and the epidemiology of representations. In Hirschfeld, L. A. & S. A. Gelman (eds) *Mapping the mind: Domain specificity in cognition and culture*. Cambridge: CUP.

Sperber, D. (1994b) Understanding verbal understanding. In Khalfa, J. (ed) *What is intelligence?* Cambridge: CUP, 179-198.

Sperber, D. (1996) *Explaining culture*. Oxford: Blackwell.

Sperber, D. (1997) Intuitive and reflective beliefs. *Mind and Language* 12(1): 67-83.

Sperber, D. (2000) Metarepresentations in an evolutionary perspective. In Sperber, D. (ed) *Metarepresentations: A multidisciplinary perspective*. Oxford: OUP, 117-137.

Sperber, D. & D. Wilson (1981) Irony and the use-mention distinction. In Cole, P. (ed) *Radical pragmatics*. New York: Academic Press, 295-318.

Sperber, D. & D. Wilson (1983) Early draft of *Relevance: Communication & Cognition*. Unpublished ms., University College London.

Sperber, D. & D. Wilson (1986/1995) *Relevance: Communication and cognition*. 2nd edn. Oxford: Blackwell.

Sperber, D. & D. Wilson (1998) The mapping between the mental and the public lexicon. In Carruthers, P. & J. Boucher (eds) *Thought and language*. Cambridge: CUP, 184-200.

Sperber, D. & D. Wilson (2002) Pragmatics, modularity and mind-reading. *Mind and Language* 17(1 & 2): 3-23.

Stainton, R. (1993) *Non-sentential assertions*. PhD thesis, MIT.

Stainton, R. (1997) What assertion is not. *Philosophical Studies* 85: 57-73.

Stalnaker, R. C. (1970/1999) Pragmatics. In *Content and context*. Oxford: OUP, 31-46. Originally published in *Synthese* 22.

Stalnaker, R. C. (1973) Presuppositions. *Journal of Philosophical Logic* 2: 447-457.

Stalnaker, R. C. (1974/1999) Pragmatic presuppositions. In *Content and context*. Oxford: OUP, 47-62. Originally published in Munitz, K. & P. Unger (eds.) *Semantics and philosophy*. New York: University Press.

Stalnaker, R. C. (1975/1999) Indicative conditionals. In *Content and context.*
Oxford: OUP, 63-77. Originally published in *Philosophia 5.*

Stalnaker, R. C. (1978) Assertion. In Cole, P. (ed) *Syntax and semantics 9:*
Pragmatics. London: Academic Press, 315-332.

Stalnaker, R. C. (1984) *Inquiry.* Cambridge, MA: MIT Press.

Stalnaker, R. C. (1988/1999) On the representation of context. In *Content and*
context. Oxford: OUP, 96-113. Originally published in *Journal of Logic,*
Language and Information 7.

Stalnaker, R. C. (2002) Common ground. *Linguistics and Philosophy* 25: 701-721.

Strawson, P. (1950/1971) On referring. In *Logico-linguistic papers.* London:
Methuen & Co., 1-27. Originally published in *Mind* 59: 320-344.

Terrell, T. D. (1976) Assertion and presupposition in Spanish complements. In
Luján, M. & F. Hensey (eds) *Current studies in Romance linguistics.*
Washington: Georgetown University Press.

Terrell, T. D. & J. Hooper (1974) A semantically based analysis of mood in Spanish.
Hispania 57: 484-494.

Tomasello, M., M. Carpenter, J. Call, T. Behne & H. Moll (forthcoming)
Understanding and sharing intentions: The origins of cultural
communication. *Behavioral and Brain Sciences.*

Tomasello, M. & K. Haberl (2003) Understanding attention: 12- and 18-month-olds
know what is new for other persons. *Developmental Psychology* 39(5): 906-
912.

Unger, C. (2001) *On the cognitive role of genre: A relevance-theoretic perspective.*
PhD thesis, University of London.

Urmson, J. (1952) Parenthetical verbs. *Mind* 61(244): 480-496.

Vanderveken, D. (1990) *Meaning and speech acts.* Cambridge: CUP.

Villalta, E. (2000) Spanish subjunctive clauses require ordered alternatives. In
Jackson, B. & T. Mathews (eds) *SALT.* Ithaca, NY: Cornell University. X,
239-256.

Watson, G. (2004) Asserting and promising. *Philosophical Studies* 117: 57-77.

Williamson, T. (1995) Is knowing a state of mind? *Mind* 104(415): 533-565.

Williamson, T. (1996) Knowing and asserting. *The Philosophical Review* 105(4): 489-523.

Williamson, T. (2002) *Knowledge and its limits*. Oxford: OUP.

Wilson, D. (1995) Is there a maxim of truthfulness? *UCL Working Papers in Linguistics* 7: 197-212.

Wilson, D. (1998-9a) Non-truth conditional semantics: Mood indicators I. Lecture notes, Dept. Phonetics & Linguistics, University College London.

Wilson, D. (1998-9b) Non-truth conditional semantics: Mood indicators II. Lecture notes, Dept. Phonetics & Linguistics, University College London.

Wilson, D. (2000) Metarepresentation in linguistic communication. In Sperber, D. (ed) *Metarepresentations: A multidisciplinary perspective*. Oxford: OUP, 411-448.

Wilson, D. (2003) New directions for research on pragmatics and modularity. *UCL Working Papers in Linguistics* 15: 105-127.

Wilson, D. & D. Sperber (1979) Ordered entailments: An alternative to presupposition theories. In Oh, C.-K. & D. Dinneen (eds) *Syntax and sematics: presupposition*. London: Academic Press. 11, 299-323.

Wilson, D. & D. Sperber (1988a) Mood and the analysis of non-declarative sentences. In Dancy, J., J. M. E. Moravcsik & C. C. W. Taylor (eds) *Human agency: Language, duty and value*. Stanford: Stanford University Press, 77-101.

Wilson, D. & D. Sperber (1988b) Representation and relevance. In Kempson, R. (ed) *Mental representation: The interface between language and reality*. Cambridge: CUP, 133-153.

Wilson, D. & D. Sperber (1993) Linguistic form and relevance. *Lingua* 90: 1-25.

Wilson, D. & D. Sperber (2002) Truthfulness and relevance. *Mind* 111(443): 583-632.

Wittgenstein, L. (1958) *Philosophical investigations*. 2nd edn. Oxford: Blackwell. Translated by Anscombe, G. E. M.