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THE DIRECTIVE FUNCTION OF THE
ENGLISH MODALS

by

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degree of Doctor of
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ABSTRACT

The aim of this thesis is to provide a detailed account, within a 'systemic' framework, of those properties of English sentences containing modal verbs, which will allow us to make predictions about the potential directiveness of some such sentences but not others, about ambiguity of communicative function, and about certain social properties of directives.

Part I develops a model suitable for describing all the relevant aspects of modalised directives. We argue that no systemic model so far proposed is, by itself, adequate for this task. We also show that the communicative function of an utterance is to be accounted for, not at the semantic level, but in terms of discourse function. Illocutionary properties are seen as relevant to the interpretation of discourse function from the meanings of sentences uttered in contexts. A multi-level model, based on the principles of Hudson's 'daughter dependency' grammar, is proposed.

Part II provides descriptions of three areas crucial to an account of modalised directives, using the framework set up in Part I. A network and realisation rules for the discourse level are proposed, and the role of directives in discourse discussed. There follows a formalised account of the semantic properties underlying mood, and the meanings of the modals.

In Part III we predict, from the semantics of mood and modalisation, which modalised sentences will be acceptable as

directives, and which of the acceptable sentences will be classified as orders, requests and suggestions, when used directly in a given social context. We also predict that, again in a given social context, certain forms of directive will be regarded as more polite than others. The results of an informant programme designed to test these hypotheses are then presented, and found to corroborate very strongly the predictions made.

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1: PROLOGUE

The past two decades have seen a remarkable and wholly desirable upsurge, within linguistics, of interest in language as a social phenomenon. One important strand in this movement is the work of M.A.K. Halliday, who has done more than anyone else to develop the insightful ideas advanced only programmatically by J.R. Firth.

Firth believed in Malinowski's famous dictum that language, in its primary function, is "to be regarded as a mode of action, rather than as a *countersign of thought*" (Malinowski 1923: 297). Moreover, language as behaviour was seen as situated within, and explicable by reference to, 'contexts of situation', a concept which for Malinowski had the relatively concrete interpretation of concurrent events, relevant objects, and the like, but which became, with Firth, a rather more abstract representation of 'typical' contextual features (see Firth 1950/1957: 182). For Firth, the meaning of a linguistic item was its function within a context: whole utterances had meaning within their social context, but smaller items (words, even individual units of sound function) also had meanings related to their function within intralinguistic contexts at various levels (phonological, grammatical, semantic, etc.).

Firth himself never attempted to integrate his ideas into a coherent theoretical framework: indeed, he was somewhat sceptical of such attempts, preferring a piecemeal approach to language. Halliday's aim has been to take the more insightful of Firth's ideas, and to build them into a theory of language: first the 'Scale and Category' linguistics of the early 60s, then later 'Systemic Linguistics', in which the Firthian notion of system was made

central to the theory. One of the main concerns of Hallidayan linguistics has been to explore Firth's view of language as a tool in the social life of man. Halliday's agreement with Malinowski's concept of language as an instrument of action is made clear in his assertion that "a systemic description is an attempt to interpret simultaneously both what language 'is' and what language 'does' (or, more realistically, what people do with it)" (Halliday 1977a: 5).

We might expect, then, in principle, that Hallidayan linguistics would be particularly strong in accounting for the various 'speech acts' which may be performed using language, and for the relationship between these and the internal patterning of language. It is just such an area of investigation which forms the topic of the present thesis. Here, we are concerned with the ways in which English sentences containing modal verbs can be used 'directively', that is in an attempt to get someone to do something. English provides a large number of forms of this kind, and the area raises a whole plethora of interesting questions which should surely be of crucial concern to the Halliday camp. How are we to account for directives and other kinds of speech act within a linguistic model? Why can some modalised sentences be interpreted directly at all? Why are there some modalised forms which would not normally be interpreted directly? Do the various possible forms differ in their social properties? If so, can we predict these properties from the linguistic features of the sentences concerned?

Many such questions have not even been asked, let alone answered, by Halliday or others working within a systemic framework. It is our purpose here to show that the systemic models and descriptions proposed so far are, individually, unable to provide full answers to the kinds of question we should like to investigate, and

to put forward an alternative model, and descriptions based on that model, which combine and expand insights from a number of sources, and which will allow us to account for the potential directiveness of some modalised sentences of particular formal types, for the unacceptability of other such sentences as directives, and for some interesting social properties of such sentences.

Let us now consider in rather more detail the claims we wish to make concerning the properties of modalised sentences in respect of their potential directive function.

It is a fact of our everyday experience of using English, but a fact which nevertheless demands explanation, that native speakers can and do recognise certain kinds of modalised sentence as potentially directive in function. Some such 'indirect speech acts' (a term due to Heringer (1972)) are in fact standard ways of trying to secure action on the part of the addressee, and the response in cases such as the following is clear evidence that they are understood as such:

1.1 A. Could you open the window?

B. Sure. (Opens window)

A second fact in need of explanation is that only some modalised sentences are readily interpretable as directives. For instance, although A's sentence in 1.1 above is perfectly possible as a way of getting someone to open a window, 1.2, for the present writer at least, is not:

1.2 *Might you open the window?

This example is, of course, starred *qua* directive: it is a perfectly acceptable way of asking whether it is possible that the addressee will open the window. Similarly, although 1.3 is potentially directive for the author, 1.4 seems, to say the least, extremely odd:

1.3 Can I ask you to open the window?

1.4 *I can ask you to open the window.

The judgments of informants regarding such matters were in fact elicited in the present study, and the results of the investigation are reported in Chapter 10.

A third observation to be accounted for is that speakers can recognise potential ambiguity in the use of speech acts which could be either direct or indirect. For instance, the following piece of dialogue is perfectly possible, although if, as is likely, A does intend his utterance as a request, he is likely to be somewhat frustrated at B's taking it as a straight question, and will probably follow up with a more explicit directive:

1.5 A. Could you open the window?

B. Yes, I could. (does nothing)

A fourth claim made here, and substantiated by means of informant testing (see Chapter 10), is that the various possible forms of modalised directive do indeed have social properties which (i) can be recognised by native speakers, and (ii) are predictable from the linguistic features of the sentences concerned. More specifically, we claim that native speakers can attach relative politeness values to directives as used in a particular social context, and that these relative values are predictable from the semantic properties underlying mood, modalisation and the use of performatives. The 'base-line' context with which we shall operate is one in which someone is trying to get an acquaintance of the same age and sex to carry out a small or trivial service: we shall, in fact, take the example of opening a window. In this context, the author's intuitions are that 1.6, for example, is more polite than 1.7, and 1.3 more polite than 1.8:

1.6 Will you open the window?

1.7 You will open the window.

1.3 Can I ask you to open the window?

1.8 Can you open the window?

A fifth claim, which will again be documented by informant studies, is that native speakers can classify, in terms of 'order', 'request' and 'suggestion', directives which contain some overt indicator of potential directive function such as an appropriate modal or performative verb. For the author, 1.1 (A's contribution), 1.3, 1.6 and 1.8 are requests, while 1.7 is an order. These classifications are, it is claimed, predictable from the same sets of linguistic features that allow us to predict politeness values.

Let us now examine in outline why Hallidayan linguistics has so far failed to provide a satisfactory account of the area in which we are interested, despite its claim to be concerned with language as a tool in social interaction. There are two kinds of reason for this failure, one concerned with inadequacies of systemic models, the other with weaknesses in the descriptions of areas of English grammar relevant to our concerns.

First, let us consider the inadequacy of the models. No version of systemic theory so far proposed is, of itself, adequate to the task of relating the potentially directive function of certain modalised sentences to the meanings of those sentences, and ultimately to their form. One aspect of this inadequacy is concerned with the relationship between meaning and form in systemic models. In order to see the importance of this area for our studies, we must consider briefly the types of meaning carried by modal verbs.

Many authors have made the distinction between the 'root' and 'epistemic' uses of the modals, which has been rephrased by

Halliday (1970a) in terms of 'modulation' and 'modality'. The root, or modulation, uses are concerned with the notions of obligation, compulsion, permission, volition and ability, while the epistemic, or modality, uses are concerned with the expression of degrees of certainty. The difference may be seen from the following pairs of sentences, in which the first contains a root (modulation) modal, the second an epistemic (modality) modal:

1.9 You must go to the doctor's straight away.

1.10 That must be the postman - he always comes about 8.

1.11 You may go now - I've nothing more to say to you.

1.12 You may find him a little difficult to get on with.

1.13 Could you swim a mile in those days?

1.14 Could that be John over there?

Now, it is the 'modulation' meaning of the modals, not the 'modality' meaning, which frequently acts as an overt indication of potential directive function, as is clear from the fact that sentences such as 1.15 are interpretable as directives only with considerable difficulty:

1.15 You may possibly read some Shakespeare at university.
The way in which we handle the separation of root and epistemic meanings, and the relationship between these and their modal realisations, are thus important to our study, and this involves us in the more general question of the relationship between form and meaning.

Chapter 2 considers, in the light of this question, the various models proposed within a systemic framework. We follow critically the development of Halliday's work from his early 'Scale and Category' theory (Halliday 1961), through his later postulation of a grammar based on functional principles (see e.g. Halliday 1968,

1970b), to the addition of a layer of 'sociosemantic' options representing the range of meaning choices available to speakers in defined social contexts and settings (see especially Halliday 1973a). We also discuss Hudson's work on systemic syntax (Hudson 1971, 1974, 1976), and consider the arguments for autonomous levels of syntax and semantics. An attempt by Martin (forthcoming) to marry the approaches of Hudson and Halliday is also reviewed. Finally, we consider the adequacy of each model in relation to the syntax and semantics of modalisation and mood in English, concluding that none of them accounts for all the facts in a principled and revealing way.

A second way in which systemic models are inadequate is in dealing with what we might call 'speech function', i.e. what we do by means of language. This is the more regrettable in view of Halliday's claim (see the quotation given earlier) that systemic descriptions are intended to show both what language is and what people do with it.

In Chapter 3 we discuss the 'speech act' approach to speech function. The pioneering work of Austin (1962) and Searle (1969) on speech act theory is reviewed briefly, and the question raised as to just how much of the speech act force of utterances can and should be accounted for within a description of the syntax and semantics of sentences. Views from the non-systemic literature (see especially Gordon & Lakoff 1971; Heringer 1972; Green 1973; Sadock 1974; Davison 1975; Searle 1975; Grice 1975, 1978) are summarised. Systemic approaches to the speech act are then examined. Halliday's (1971a/1973a, 1977a) views on speech function and Fawcett's (1980) semantic networks for illocutionary force are discussed and found wanting. We then go on to consider an important article by Hudson

(1975) on the meaning of questions, in which he argues very convincingly that illocutionary force itself is not to be accounted for within the domain of syntax or semantics, but is related to the form of sentences only very indirectly, via a set of context-independent properties, or semantic 'force markers', which are concerned with 'sincerity conditions' of a Searlian kind.

Having argued that only those aspects of speech function related to surface syntax should be present in the semantic representation of sentences, we go on to ask, in Chapter 4, whether there is any linguistic level 'above' the semantics, where functional properties such as directiveness can be recognised. We argue that speech act theory does not, by itself, provide an adequate linguistic model. Speech act theorists have not, in general, sought evidence for the unobservable speaker intentions on which their definitions are largely based. Such evidence is available if we examine the way in which the discourse proceeds: the hearer's response to a speaker's utterance will normally show how he has interpreted the remark and succeeding turns may demonstrate the extent to which this interpretation coincides with the speaker's original intention. The fact that speech act theory has concentrated on the analysis of isolated sentences, abstracted from their discourse context, means that it makes no predictions about the structural relationships between speech acts within a discourse. It is for this that the theory has been criticised by proponents of 'discourse analysis', an approach which offers the possibility of accounting for patterning above the sentence in terms of paradigmatic and syntagmatic relations parallel to those for other levels of linguistic description.

Turning to the discourse analysis approach, we first summarise the early work of the ethnomethodologists (e.g. Schegloff 1968/1972a,

1972b; Schegloff & Sacks 1973; Jefferson 1972; Sacks, Schegloff & Jefferson 1974/1978). Particular attention is then given to the work of Sinclair & Coulthard (1975) on classroom discourse, since it presents a fairly explicit model of discourse structure within a 'Scale and Category' type of Hallidayan framework. We discuss the relationship between Sinclair & Coulthard's discourse categories and illocutionary categories, and conclude that the latter play a part in the interpretation, ultimately from the form of an utterance, of its discourse function. More specifically, we argue that the interpretation rules must take account of the meanings of sentences (as implied by Labov 1970/1972a, 1972b, Labov & Fanshel 1977), rather than operating directly on lexicosyntactic properties (as in Sinclair & Coulthard's account), and that conversational rules of the type proposed by Grice (1975, 1978) allow us to work out, from these meanings, the range of possible speech acts a given sentence could represent, and which of these is most likely in the context. A second element of interpretation takes account of the rules for discourse structure, to determine the specific function, within the ongoing discourse, of the speech act performed.

We go on to consider the above matters specifically in relation to the role of directives in discourse. We also show that it is possible to recognise, on the basis of predictions about discourse structure, subclasses of directive which can be labelled as 'opaque', 'order', 'request' and 'suggestion'.

The discussion in Chapters 2-4 shows that several of the studies outlined (in particular Sinclair & Coulthard's work on discourse and Hudson's work on autonomous syntax and on the semantic properties mediating between illocutionary force and mood) have much to offer to the solution of the problems we have set ourselves, but that no

individual model so far proposed is wholly adequate for the task. We therefore propose that a synthesis of approaches is required, within a unified theoretical framework.

It is such a framework which is presented in Chapter 5. The model has levels of discourse, semantics, syntax and phonology, linked by mapping rules, and a lexicon relating the three 'lower' levels. The theoretical organisation at all levels is based on the 'daughter dependency' model proposed for syntax by Hudson (1976). This model is chosen as a basis for our own description on three main grounds: it is situated within a framework which recognises the essential autonomy of syntax and semantics; it provides the most comprehensive and rigorous systemically-oriented treatment of syntax yet available; and the relationships on which it is based are those needed at all levels of description. At each level of our own model, a system network shows the permitted range of combinations of features on nodes in the structure at that level; the structure is generated from complexes of features by means of sets of realisation rules which are of the same, or very similar, types for all levels. Presentation of this scheme completes Part I of the thesis, concerned with the search for a model adequate for our needs.

We have, then, so far concentrated chiefly on the inadequacies of existing systemic models. A second reason for the failure of previous systemic accounts to deal satisfactorily with the phenomena in which we are interested is that they provide only very incomplete descriptions of the areas concerned. Certain elements which are ignored in these accounts, or which are mentioned but not built into the formal description, are crucial for our investigations.

Chapters 6-8, forming Part II of the thesis, therefore take three key areas and attempt a detailed account of them within the theoretical framework set up in Chapter 5.

Chapter 6 builds on the work of Sinclair & Coulthard (1975) and Burton (1980), to produce a formalised description of discourse options and the realisation rules which link these to discourse structures. In this chapter, we examine the relationships between directives and other types of discourse act.

Chapter 7 expands and formalises the ideas of Hudson (1975) on the semantic correlates of mood. Whereas Hudson's account concentrates on questions, with some discussion of statements, tags and exclamations, our proposals extend the treatment to cover imperative-form sentences, and also formalise, in the terms of Chapter 5, the options available to the speaker in this area, their realisation in semantic structures, and the mapping relations between semantics and syntax.

Chapter 8 is devoted to the semantics of the English modals. We first consider the basic requirements for an adequate account of this area, and then review briefly previous studies of modal meaning (see Jespersen 1932; Zandvoort 1975; Quirk et al. 1972; Joos 1964; Bouma 1975; Diver 1964; Ehrman 1966; Palmer 1967, 1974, 1979; Huddleston 1969; Marino 1973; Twaddell 1960; Anderson 1971; Antinucci & Parisi 1971; Boyd & Thorne 1969; Mitchell 1974; Halliday 1970a; Ney 1976, 1978; Lyons 1977; Leech 1969; Leech & Coates 1979; Coates & Leech 1980; Fawcett 1980), showing that none of them entirely matches up to our criteria. We then present an account which is based largely on revision and reinterpretation of the work of Palmer (1979), but which, for the first time, offers an explicit statement, formalised in terms of the model discussed in Chapter 5, of the

relationships between the various dimensions of modal meaning, the contribution of meaning choices to the semantic structures of modalised sentences, and the mapping relations between modal meanings and syntax, lexis and stress placement. Our description accounts for the hitherto unexplained restriction of modal meanings to non-imperative sentences, by showing that modals and their paraphrases represent stative semantic predicates, which do not normally occur in imperative sentences.

Having provided a detailed description of the discourse properties of directives, and of the semantics of mood and modalisation, we return, in Part III of the thesis, to a consideration, in terms of these descriptions, of the five claims we have made about the directive functioning of modalised sentences. In Chapter 9, we first show, by means of selected examples, that the acceptability of some modalised sentences as directives, and the unacceptability of others, can be predicted from the semantic properties (modal meaning and semantic force) of the sentences concerned. Secondly, we show that certain combinations of modal meanings and semantic force options can realise more than one discourse act category, so that some sentences are potentially ambiguous as to their discourse function, though this ambiguity can usually be resolved in context. We then discuss the notion of politeness (for views in the literature see Heringer 1972; Green 1973; Lakoff 1973, 1974; Mohan 1974; Searle 1975; Sadock 1974; Davison 1975; Lee 1975; Ney 1976; Ervin-Tripp 1976; Lyons 1977; Leech 1977a) and its relationship to the classification of directives as orders, requests or suggestions. The contribution of semantic force to relative politeness and classification is then considered.

Finally, we examine each combination of modal verb and semantic force type, and predict, for each, whether the sentence is potentially directive and, if so, its relative politeness value in our 'neutral' social context, and its classification as an order, request or suggestion.

In Chapter 10, we present an account of informant studies, which expand and refine considerably an earlier very limited study by Mohan (1974), and are designed to test our claims that native speakers are able to distinguish between forms which can and those which normally cannot act as directives, and to attach relative politeness ratings and order/request/suggestion classifications to the acceptable forms. These studies test in detail the predictions made from a consideration of the semantics in Chapter 9. The hypotheses put forward are found to be substantiated to a very high degree, so providing strong evidence for the validity of the theoretical and descriptive categories set up.

In summary then, we may say that the aim of this thesis is to give a detailed account of the properties of modalised sentences, which will lead us to make, and in many cases to test, predictions about the potential directiveness of some such sentences but not of others, about ambiguity of communicative function, and about the relationship between the large range of potentially directive forms available in English, and certain properties relating to the social contexts in which they may appropriately be used. This will first involve us in the search for a systemically-oriented model which will admit of such a description. Having formulated an appropriate model, we then devote considerable space to the description of those discourse and semantic properties relevant to the directive

functioning of modalised sentences. Finally, we make and test detailed predictions about the acceptability, classification and politeness of such sentences, used as directives.

PART I

TOWARDS A MODEL APPROPRIATE
FOR THE ANALYSIS OF MODALISED
DIRECTIVES

2: FORM AND MEANING IN SYSTEMIC MODELS

2.1 Introduction

In this chapter, we shall review critically the various versions of systemic theory proposed by Halliday and others, concentrating particularly on the ways in which they handle the relationship between form and meaning. We then examine the adequacy of each model as applied to the area under focus in the present work, viz. the analysis of modalised directives.

2.2 Halliday's early work

In the earliest version of Hallidayan theory (Halliday 1961: 243 ff., Halliday, McIntosh & Stevens 1964: 18 ff.), the primary levels are labelled 'substance', 'form' and 'context'. Substance is the actual material (phonic or graphic) of language events. Form is "the organisation of the substance into meaningful events" (Halliday 1961: 243), and comprises two related sub-levels, those of grammar and lexis. Context is "the relation of the form to non-linguistic features of the situations in which language operates, and to linguistic features other than those of the item under attention" (Halliday 1961: 243-4). Context is thus, strictly speaking, an inter-level, linking form to relevant features outside the text, just as phonology and graphology (or 'orthography') are interlevels linking form to phonic and graphic substance respectively. The relationship of levels in this version of the model is

summarised in Fig. 2.1 below, taken from Halliday (1961: 244).

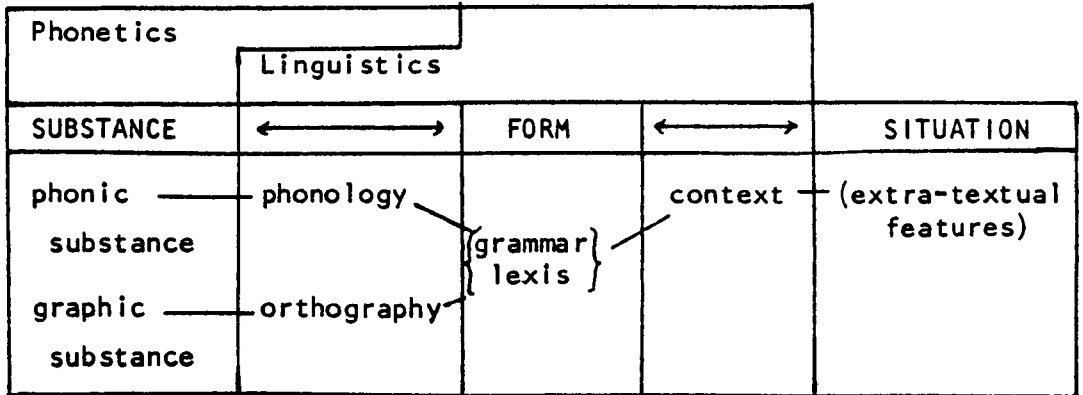


Fig. 2.1: Levels in the 1961 model

In the model of the early sixties, it is at the level of grammar that the Firthian concept of 'system' enters the picture, the notion of closed systems (as opposed to open sets) being used to demarcate grammar from lexis.¹

2.3 Semantic functional grammar

Although Halliday's writings in the period 1961-70 are concerned largely with the grammatical level, an increasing preoccupation with the semantic phenomena underpinning the grammar becomes evident from about 1966 onwards. Even from its earliest formulations, Halliday's model has been concerned with language as 'meaningful' activity:

When we describe linguistic form, that is the two levels of grammar and lexis, we are describing the meaningful internal patterns of language: the way in which a language is internally structured to carry contrasts in meaning. (Halliday, McIntosh & Stevens 1964: 21)

¹ The basic notion of 'system', and its relationship to the other three fundamental categories of 'unit', 'structure' and 'class', will be assumed here without further discussion. Full details can be found in Halliday (1961), Halliday, McIntosh & Stevens (1964).

In interpreting Halliday's discussions of 'meaningfulness', it is important to bear in mind the distinction between 'formal' and 'contextual' meaning. The formal meaning of an item is "its operation in the network of formal relations": the number and identity of the items with which it contrasts, the unit which carries the contrast, the entry conditions for the set of choices concerned, and so on. The contextual meaning of an item, on the other hand, is "its relation to extratextual features" (Halliday 1961: 245), and so corresponds most closely to what most linguists would regard as the semantics of the item.

By 1966, Halliday has come to regard grammatical networks as expressing 'deep' relations which are intimately related to the underlying (contextual) meanings:

... underlying grammar is 'semantically significant' grammar, whether the semantics is regarded, with Lamb, as 'input' or, with Chomsky, as interpretation. What is being considered therefore is that that part of the grammar which is as it were 'closest to' the semantics may be represented in terms of systemic features. (Halliday 1966: 62-3)

In the papers written in the period 1967-70, the semanticisation of the grammar becomes very prominent. The options available in the grammar are now seen as constituting the 'meaning potential' of the language (see e.g. Halliday 1970b: 142), and are organised into a number of 'functional components' (later called 'macrofunctions' or 'metafunctions').

The idea of functional components of the grammar is first put forward in a paper (Halliday 1968: 207 ff.) dealing with transitivity and theme options in English. Reviewing the classifications of language function proposed by Bühler and Malinowski, Halliday claims that these external functions are

reflected in the internal organisation of the language itself:

... this plurality of language function is reflected in the system, and different parts of the system realize different functions; not in the sense that a given sentence has one function and is therefore specified exclusively by one component of the system, but in the sense that, while every sentence expresses a combination of functions and thus all parts of the system have contributed to its specification, it is possible to formulate the contribution made by each part. If we represent the set of options available to the speaker in the grammar of the English clause, these options group themselves into a small number of subsets, distinct from one another in that, while within each group of options there is a very high degree of interdependence, between any two groups the amount of interdependence, though by no means negligible, is very much less. This provides a syntactic basis for the concept of language functions, and suggests how the diversity of functions recognizable at the semantic levels may be organized in the course of realization. (Halliday 1968: 207)

The last sentence here is particularly noteworthy: the functional components are claimed to be syntactic, and are the language-internal reflections of external, semantic functions.

The four functional components (or, in some formulations, three, one of which consists of two sub-components) are discussed in many of Halliday's writings from 1968 onwards (in addition to Halliday 1968: 207 ff., see also e.g. Halliday 1970a: 325; 1970b: 143 ff.; 1973b/1973a¹: 38 ff.; 1971a/1973a: 66 ff.; 1971b/1973a: 105 ff.; 1972/1973a: 99 ff.; 1975a/1978²: 112 ff.; 1977b/1978: 128 ff.; forthcoming). The following

¹ References in the form Halliday 19--/1973a are to articles reprinted in the book *Explorations in the functions of language*. Since this is the most easily accessible version of many of these papers, page references are given to the book.

² References in the form Halliday 19--/1978 are to articles reprinted partially or wholly in the book *Language as social semiotic: the social interpretation of language and meaning*. Page references are given to the book.

definitions are taken from Halliday (1971b/1973a: 106-7). The ideational component is that function through which "the speaker or writer embodies in language his experience of the phenomena of the real world; and this includes his experience of the internal world of his own consciousness." This component is split into two, the experimental and the logical, the latter being "the expression of certain fundamental logical relations such as are encoded in language in the form of co-ordination, apposition, modification and the like." In the interpersonal component, "the speaker is using language as the means of his own intrusion into the speech event: the expression of his comments, his attitudes and evaluations, and also of the relationship that he sets up between himself and the listener - in particular, the communication role that he adopts, of informing, questioning, greeting, persuading and the like." The final functional component is the textual, which is instrumental to the others in that "it is through this function that language makes links with itself and with the situation." It is this function which enables the speaker or writer to create coherent text.

Halliday shows how the options from within the functional components are realised through the specification of layers of constituent structure, one layer for each component, consisting of configurations of structural functions (see e.g. Halliday 1968: 210-12; 1973b/1973a: 43; 1977b/1978: 129). Thus the transitivity systems of the ideational component specify functions such as 'actor', 'process' and 'goal'; the mood systems of the interpersonal component specify a second layer of functions (given different names in different papers) concerned

with the realisation of the mood options; and the theme and information systems of the textual component give rise to the structural functions 'theme'/'rheme' and 'given'/'new' respectively. These structural functions are mapped on to one another, in the course of the realisation process, to form a single integrated structure consisting of bundles of such functions.

Such is the emphasis, in the papers of the '70s, on the semanticity of grammatical choices, that it almost appears at times as if the semantic and lexicogrammatical levels have become fused. This leads to considerable confusion in certain of Halliday's writings. For instance, in the context of a discussion involving the evolution of the functional components in child language acquisition (Halliday 1973b/1973a), we are told that "these macro-functions appear at a new level in the linguistic system - they take the form of 'grammar'" (p. 36). Yet, in the same article, we read that the ideational function "is a major component of meaning in the language system" and that it "not only specifies the available options in meaning but also determines the nature of their structural realizations" (p. 39, emphasis added). We are left with the impression that the functional components are at the same time both semantic and grammatical, and it is difficult to see how this fits in with Halliday's commitment to a tristratal model. In the same paper, however, we find a claim which appears to be more in line with a tristratal model, viz. that "these sets of options, which are recognizable empirically in the grammar, correspond to the few highly generalized realms of meaning that are essential to the social functioning of language" (p. 44).

Halliday seems to be saying here that the options in transitivity, mood, and the like, are indeed grammatical options, but they are based on the way in which language can be seen to function as a carrier of meanings of three basic types, ideational, interpersonal and textual. This interpretation is reinforced by the comment, elsewhere, that the functional components, though themselves intrinsic to the linguistic system, are "based on macro-functions that are extra-linguistic in origin and orientation" (Halliday 1972/1973a: 100). It rather sounds here as if we have two different terms, 'functional component' referring to the organisation of the lexicogrammar, and 'macro-function' referring to that of the semantics, which is reflected in the lexicogrammar. This plausible suggestion is, however, refuted by the equating of 'functional components' and 'macro-functions' in the labelling of a pictorial representation of the model (Halliday 1972/1973a: 101), which shows the components/macro-functions as intermediate between semantics and grammar.

The unfortunate confusion in this area clears somewhat in a later paper (Halliday 1975a/1978), in which the functional components are placed squarely in the semantic system, where they surely belong. Halliday still claims, however, that these semantic functions are reflected in the grouping of lexicogrammatical options into relatively discrete sets of networks.

In a more recent paper (Halliday 1977b/1978), the functional components are again regarded as semantic, but the networks of transitivity, mood and theme are now seen as constituting the semantic stratum. Unfortunately, although it is stated that each level is to be described in terms of a network

of options, no indication is given of what the lexicogrammar might now look like, or exactly how it would relate to the semantic networks.

The position taken by Fawcett (1980) has much in common with Halliday's most recent views, although it differs in its orientation, being "set within the familiar Chomskyan framework of regarding linguistics as in principle a branch of cognitive psychology" (Fawcett 1980: 4) and related to recent work in Artificial Intelligence (e.g. Winograd 1972, Davey 1978). Halliday's sociological preoccupations are not, however, rejected out of hand; rather, Fawcett's work attempts to reconcile sociological and psychological orientations.

Here, we are concerned largely with the linguistic component, which forms just one part of Fawcett's integrated model of communicating minds. This component conforms to the traditional tristratal model having semantics, form (syntax and 'items') and (micro)phonology. Intonation ('macrophonology'), however, is seen as parallel to form, in that it, like form, can realise meanings directly. The semantic level consists of the functional component networks, as in Halliday (1977b/1978). The number of functional components, however, is expanded, in Fawcett (1980), to eight. He splits not only the ideational component (into 'experiential' and 'logical', as with Halliday), but also the interpersonal (into 'interactional' and 'expressive') and the textual (into 'thematic' and 'informational'). The other two components are 'negativity' and 'modality'. This expansion in the number of components has arisen as a result of Fawcett's efforts to make more explicit the criteria for recognising the functional divisions of the semantics.

In Fawcett's model, semantics is the generative base from which syntactic structures are ultimately derived. It is claimed that a systemic generative grammar needs only one layer of networks, i.e. in the semantics: although contrasts at other levels could be modelled by system networks, these are actually superfluous to the generative mechanism. The link between semantics and syntax is made by means of realisation rules, which differ in nature from those proposed by Halliday (1969) and developed by Berry (1975, 1977), and also from those put forward by Hudson (1971, 1974, 1976), discussed later in the present work. Fawcett's realisation rules are based on a 'starting structure' for each syntactic unit, consisting of elements of structure which can occur in that unit, and 'places' at which these elements can appear (Fawcett 1980: 115 ff.).

Fawcett has also put forward detailed proposals for systemic syntax (Fawcett 1974, 1975a, 1976), based on a rather radical revision of the 'Scale and Category' model of Halliday (1961). The syntax is, as we have seen, regarded as subservient to the semantics, so that syntactic categories are proposed only if they are "needed to state with the greatest economy the realisation rules that express options in the semantics" (Fawcett 1974: 4).

2.4 Sociosemantic networks

Although, as we have seen, Halliday now appears to have reached a position where the functional component networks constitute the semantic stratum, a somewhat different approach was taken in certain papers published between 1971 and 1973, and most readily available in the collection *Explorations in*

the functions of language (Halliday 1973a). 'Meaning potential' is here re-interpreted as 'linguistic behaviour potential', and the semantics is a behavioural semantics:

The options in a natural language are at various levels: phonological, grammatical (including lexical, which is simply the more specific part within the grammatical) and semantic. Here, where we are concerned with the meaning potential, the options are in the first instance semantic options. These are interpreted as the coding of options in behaviour, so that the semantics is in this sense a behavioural semantics.

The semantic options are in turn coded as options in grammar. (Halliday 1971a/1973a: 55)

What interests Halliday, then, is what the speaker 'can do' by means of language, and this is equated with what he 'can mean', that is, with the meaning potential of the language. This meaning potential is represented in the actual forms of the language as what the speaker 'can say'. Thus the semantics is related both 'upwards', to social factors regulating behaviour, and 'downwards', to the syntax and lexis of the language, the relationships involved being realisational in nature.

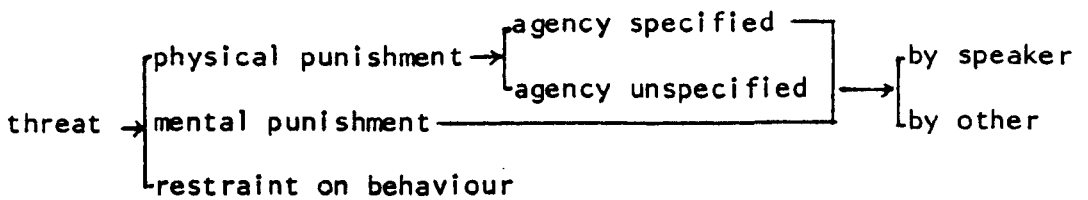
To ensure a sound basis for such a 'sociological semantics', Halliday insists that meaning choices should relate to behavioural options which are interpretable, and are predicted as important, on the basis of some social theory. The theory on which Halliday bases his discussions is that of Bernstein (see e.g. Bernstein 1971), concerned largely with child socialisation. The aim is to give accounts of meaning potentials available in defined social contexts (e.g. mother/child interaction) or settings (e.g. buying/selling transactions, doctor/patient interviews), chosen as significant on the basis of such a theory. In other words, "in sociological linguistics the

criteria for selecting the areas of study are sociological' (Halliday 1972/1973a: 80).

The relationship between features in (socio)semantic networks and lexicogrammatical features such as those in the networks for transitivity, mood and theme, is seen as one of 'pre-selection'. That is, each term in a (socio)semantic network specifies the selection of a term, or indeed a number of terms, from the lexicogrammatical networks. Halliday points out (1972/1973a: 93) that pre-selection between strata is also needed for the specification of the relationship between certain options in the lexicogrammar and their realisations in intonation at the phonological level. In order to demonstrate how (socio)semantic networks and their pre-selection realisation rules operate, we reproduce overleaf (Fig. 2.2) part of a network for mother/child control (from Halliday 1972/1973a: 89-91) dealing with threats. Further examples of networks for regulative contexts can be found in Halliday (1975b) and Turner (1973).

2.5 Autonomous syntax and semantics

A rather different kind of systemic model from those of Halliday and Fawcett has been proposed by Hudson (see especially Hudson 1971, 1974, 1976), who has done perhaps more than anyone else to improve the formalisation and rigour of systemic linguistics. Hudson has confronted his models with problems of the kind in which transformational generative linguists have been interested, with results which show great promise (for a favourable review, see Schachter 1978).



Term in sociosemantics	Lexicogrammatical realisation
physical punishment	clause: action: voluntary (<i>do</i> type effective (2-participant): Goal = <i>you</i> ; future tense; positive; verb from Roget § 972 (or 972,276) ¹
agency specified	voice: active
agency unspecified	voice: passive
by speaker	Actor/Attribuend = <i>I</i>
by other	Actor/Attribuend = <i>Daddy</i> , etc.
mental punishment	clause: relational: attributive: Attribute = adjective from Roget §900
restraint on behaviour	clause: action: modulation: necessity: Actor = <i>you</i>

Fig. 2.2: Part of a sociosemantic network and realisation rules

A most important claim in Hudson's work, and one which marks Hudson's models off from those of Halliday and Fawcett, is that each level of linguistic description should be treated as autonomous:

¹ The section numbers are in error in Halliday's paper, the relevant ones being 963,279.

The linguistic description of an utterance-type will consist of four separate representations, each corresponding to a different level of language: phonological, grammatical, lexical and semantic. These representations will be related to each other in ways that the description of the language will have to specify... (Hudson 1971: 11)

Hudson's generative grammars are themselves purely syntactic, being intended to account for the internal formal patterning of language without reference to the semantics, although they must reflect both 'deep' and 'surface' phenomena, since in a complete model we should have to relate the syntactic description to both the semantics and the phonology. Hudson's view of the relation of semantics to syntax in an overall model is encapsulated in the following remark:

After all, it is only if you start from the assumption that syntax and semantics are separate that you can really find out how closely they are related, and be impressed by the many points at which they are in almost a one-one relationship. (Hudson 1976: 7)

Since we shall in fact opt here for a model with autonomous syntactic and semantic levels, this particular point of controversy merits rather more detailed discussion.

The main argument for autonomy of levels is that we can recognise separate conditions of well-formedness for syntax and semantics. A much-quoted example is the distinction which must be made between semantic and syntactic number. Hudson (1976: 6), for example, points out that *these bathroom scales*, though syntactically plural, can be interpreted as the equivalent of *this bathroom weighing-machine*, and is, as such, semantically singular. Similarly, there is no semantic difference in number

between *these oats* and *this wheat* (see also Palmer 1976: 119). Leech (1974: 189) reminds us that in the case of mass nouns, there is no question of semantic number contrast, but the syntax still forces us to treat the noun as singular.

A second argument for autonomy is concerned with the analysis of idioms. Hudson (1976: 5) points out that the syntactic structure of *He pulled her leg* is the same, whether we interpret it as having its literal or its idiomatic meaning, despite the fact that the two meanings have little or nothing in common.¹ The relations between the semantic and syntactic structures of idioms are, Hudson suggests, more like the arbitrary relations stated in the lexicon than like any correspondence handled by normal syntactic rules. Leech (1969: 29 ff.) puts a similar argument in a rather different way, pointing out that idioms constitute a major problem for any theory which attempts to derive the meaning of a complex expression from the meanings of its constituent morphemes. Not only can the meaning of an idiom such as *green fingers* not be derived from the meaning of the constituent parts; there is the further problem that many idioms (e.g. *get away with*, *catch sight of*, *not cricket*) do not correspond to any grammatical constituent.

A third, and related, argument is also mentioned by Leech (1969: 30): we may frequently need to draw semantic parallels between items which constitute different 'sizes' of grammatical unit. For example, the semantic contrast \pm MALE found in pairs

¹ It should, however, be admitted that some idioms show a rather restricted range of properties compared with their literal counterparts (see Sadock 1974: 100 ff.).

such as *ram/ewe*, *man/woman* is also found in phrases such as *male frog/female frog*.

A fourth type of argument, not spelled out by Hudson or Leech, is based on the many-to-many mapping relation between semantic content and its syntactic and lexical realisation. The expression of a particular semantic content in more than one syntactic form is seen especially clearly in phenomena such as nominalisation, where the semantic content which could have been represented in a clause is instead realised as a nominal group:

2.1 The choir sang beautifully, which impressed everyone.

2.2 The beautiful singing of the choir impressed everyone.

The opposite relationship, the expression of more than one semantic content by the same syntactic structure, is seen in, for example, the multiple semantic functions of co-ordination. Compare:

2.3 He came in and sat down.

2.4 Do that again and I'll smack you.

Leech (1974: 185 ff.) has pointed out that in many cases we find 'zero mapping' between syntax and semantics, in that either inherent semantic content is not overtly expressed (as in the case of agentless passives), or conversely an overt syntactic element has no clearly identifiable semantic content (as in the case of dummy *it* in meteorological process clauses, extraposition, and so on).

Arguments such as those presented in outline above certainly suggest that we should set up levels of syntax and semantics with their own well-formedness conditions, and with mapping rules to relate one level to the other. This approach

will allow us to give detailed descriptions of even those syntactic phenomena which do not appear to be semantically motivated (something which is very hard to do in a model such as Halliday's or Fawcett's). It will also allow us to assess the extent of the correlation between semantic and syntactic categories, rather than risking possible distortion of our account of the syntax by viewing it in relation to the semantics, or *vice versa*.

It would, however, be perverse to ignore the fact, pointed out even by advocates of the autonomous levels approach, that there is indeed a considerable degree of correspondence between at least some syntactic and semantic phenomena. Hudson, for example, writes that "the extent to which the syntactic analyses *do* reflect meaning is impressive considering that they aren't *required* to do so by the rules of the game." (Hudson 1976: 7). Leech, too, points out that "there are some rather direct correlations between semantic elements such as arguments and predicates, and the syntactic constituents of a sentence." (Leech 1974: 184).

Although Hudson believes that work on autonomous syntax should ideally be paralleled by work on an equally autonomous semantic level, he himself has published little in this area (though see the important work on the semantics of mood (Hudson 1975) reviewed in Chapter 3 and extended in Chapter 7). An ingenious attempt to marry Hudson's autonomous syntax with Halliday's sociosemantic approach has been made by Martin (forthcoming), who relies on the distinction between formal and non-formal (contextual) meaning to classify the various networks proposed in the systemic literature into three types.

'First level' networks are those whose features are all justified by their formal meaning, i.e. by their place in a network of formal relations, although some of these features may also have contextual meaning, which is not, however, criterial. Hudson's syntactic networks are of this first level type.

'Second level' or 'contextual' networks are those, all of whose features are justified by reference to their contextual meaning, although some may also have formal meaning. The justification here is in terms of revealing the way in which language is structured to do the various things it typically does in social situations. Networks exploring Halliday's 'social semiotic' are of this second level type. Contextual networks can be expected to vary rather widely according to what kind of phenomenon the linguist is trying to describe.

'Mediated' networks are those in which some features are motivated by their formal meaning, others by their contextual meaning.

Although contextual networks would seem to be rather less constrained than first level, syntactic networks, Martin does suggest three conditions on the formulation of such networks: at least all terminal features must be realised by pre-selection of features in first level networks; all contextual features must be relevant to the formulation of distinctions criterial to the descriptive task in hand; and all such features must explain something about how language works to perform particular functions relevant to the context of communication.

Martin's model may be summarised diagrammatically as in Fig. 2.3 below.

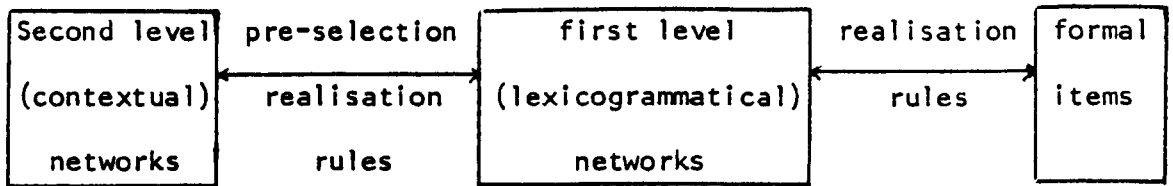


Fig. 2.3: Martin's model

In a model of the Martin type, the most natural place for the functional components postulated by Halliday is within the second level, contextual networks.

2.6 Evaluation of models with respect to the analysis of modalised directives

We turn now to a more specific evaluation of the merits and demerits of the various systemic models in relation to the particular area under focus here, viz., the analysis of modalised directives.

A basic division in the models discussed is that between an approach in which the grammar is seen as servant to the meanings it conveys, and an approach in which syntactic and semantic patterning are seen as separate though related. We have already argued (in §2.5) for the second approach from a consideration of various areas not specifically related to the analysis of modalised sentences; we now present some further arguments based within this area.

One important way of motivating the recognition of separate levels of linguistic description is to show that by postulating such levels one can account for both the

similarities and the differences between linguistic items. We can illustrate this quite simply from a consideration of the distinction between phonological and syntactic levels.

The same phonological item /kæn/ is capable of occurring in three different sets of distributional environments, illustrated in the following sentences:

2.5 Can you speak Swahili?

2.6 There's a factory in Lincoln where they can peas.

2.7 Pour the soup out of the can.

The items represented by *can* in 2.5 and 2.6 are recognisable syntactically as verbs: both, for example, occur with a subject nominal. The *can* that appears in 2.7, on the other hand, is recognisable as a common count noun, since it takes a determiner, can be pluralised, and so on. The verbal instances of *can* in 2.5 and 2.6 can be further distinguished, both distributionally and in terms of their own morphological properties. *Can* in 2.6 occurs with an object nominal, whereas that in 2.5 does not; the *can* of 2.5 most characteristically occurs together with a 'lexical' verb, while that of 2.6, being itself a lexical verb, cannot co-occur with others in the same verb phrase; for the *can* of 2.5 there are pairs of sentences differing in mood in which *can* and the subject are inverted, while the *can* of 2.6 is not able to invert in this way; the *can* of the declarative form of 2.5 could be repeated in a tag, whereas that of 2.6 could not; and so on. These and other well-known properties of the *can* in 2.5 mark it off as an auxiliary verb, and further properties (lack of third person -s, lack of non-finite forms, etc.) distinguish it more specifically as a member of the modal sub-class of auxiliaries. (see e.g. Quirk

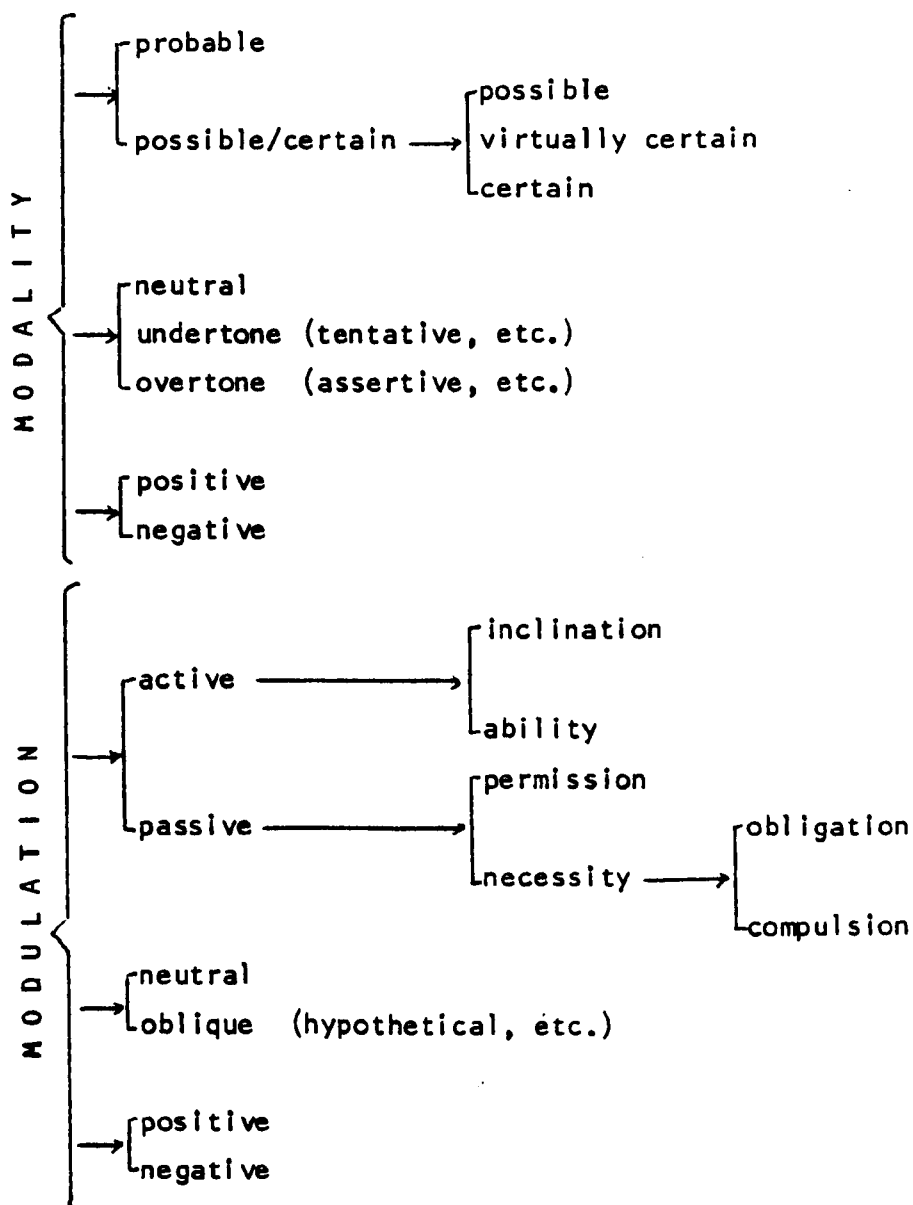
et al. 1972: 83-4, Palmer 1974: 94 ff.).¹

Systemic linguists would be in general agreement on the points discussed so far; it is when we come to examine the relationship between syntactic and semantic entities that differences of approach arise. Let us, then, examine Halliday's (1970a) account of the modals, with particular reference to the relationship between form and meaning.

The model within which the description is formulated is the 'semantic functional grammar' discussed in §2.3. Halliday distinguishes between modalities, which "represent the speaker's assessment of the probability of what he is saying, or the extent to which he regards it as self-evident" (Halliday 1970a: 328), and modulations, which "express various types of modulation of the process expressed in the clause; modulation in terms of permission, obligation and the like" (p. 336). Halliday sets out the choices in these areas in the form of system networks (pp. 332, 345) as indicated overleaf.

Modality is "a strand running prosodically through the clause" (p. 331), being realised in any of a number of ways: modal verb, modal adverb (*possibly, probably, etc.*), a combination of the two (as in *may possibly*), modal adjective (it is *possible, I am certain, etc.*), noun (*possibility, likelihood, etc.*), as well as by intonational choices. Modulation, on the other hand, when not realised by modal verbs, is expressed by

¹ The precise status of auxiliaries with respect to other verbs is a matter of lively and continuing debate (see Pullum & Wilson 1977; Akmajian, Steele & Wasow 1979); the issues involved are, however, of only peripheral interest here.



constructions of the 'be + adjective + to' type, such as *be able to*, *be obliged to*. These periphrastic forms provide a formal justification for the distinction between 'active' modulations, where the subject of an active clause is Actor with respect to the modulation as well as the process, and 'passive' modulations, where the constraint is extrinsic to the subject; the former are realisable as 'be + ordinary adjective + to', the latter as 'be + -ed form of verb + to'.

The indeterminacy of levels noted in §2.3 as a feature of Halliday's semantic grammar approach is particularly striking in this account of the modals and related areas. There are several points at which Halliday clearly indicates that modalities and modulations are to be regarded as categories of meaning (e.g. "these meanings are what we understand by modalities" (p. 328); "modality represents a very small but important part of the semantics of personal participation" (pp. 335-6). Yet he refers (p. 350) to "the syntactic system of modality" and "the syntactic system of modulation" (emphasis added). Furthermore, he constantly writes of modalities and modulations being 'expressed' or 'realised' by modal verbs and the like, and states at one point that "by and large the same verbal auxiliaries are used for 'modulation' as for modality" (p. 336), although there are some basic differences between the two uses.

If, say, the *can* of permission and the *can* of possibility are indeed to be regarded as syntactically different, then Halliday should be able to show that their distributional properties differ significantly. He does offer some comments, on the interaction of the two categories with polarity and tense, which might lead in this direction, but on closer examination the evidence is unconvincing.

Modulations, Halliday claims, can take negation of either the modulation or the process, or indeed both:

2.8 You can go.

2.9 You can't go.

2.10 You can not go.

2.11 You can't not go.

Modalities, on the other hand, are said to be inherently positive, since they represent the speaker's assessment, in the 'here and now', of the probability of a situation; they can, however, combine with either a positive or a negative process. Thus a sentence such as:

2.12 That can't be the postman.

is analysed as 'It is certain that that isn't the postman', exploiting the 'inverse' type of relation between possibility and certainty with respect to polarity. There can be no doubt that a relationship of the type exists between the logical categories of possibility and necessity. There are, however, at least three reasons for thinking that Halliday's claims are incorrect. First, as Lyons (1977: 801) has pointed out, there are grounds for arguing that epistemic possibility is more basic than epistemic necessity in English, so that if we do reduce epistemic modality to one term interacting with negation, we should postulate 'possible that not' and 'not possible that' (see Palmer 1979: 55). Secondly, however, there are good reasons for not reducing the number of categories in this way: as Palmer (1979: 54) has stated, forms for 'possible that not' (*may not*), 'not possible that' (*can't*), 'necessary that not' (*mustn't*) and 'not necessary that' (*needn't*) are all available if needed (see also §8.4.3.7). Thirdly, it is arguable that these relationships are not syntactic at all, but semantic. The modals show a common set of distributional properties with respect to *not* or the contracted *n't*, whether used as modulations or modalities. There may be one or two isolated exceptions (e.g. *mayn't*, if acceptable at all, is more likely to be a modulation than a modality), but these are marginal and do

not detract appreciably from the general argument.

Halliday's second argument for syntactic differences between modality and modulation uses of the modals, concerned with tense, is no more convincing. He claims (p. 343) that neutral (non-oblique) modals (e.g. *can*, *must*, *may*, as against *could*, *might*), in combination with perfective *have*, can be interpreted only as modalities. It is true that such constructions are most usually interpreted as modalities (for quantitative data supporting this, see Coates & Leech 1980: 28); it is not, however, true that they can only represent modalities, as Halliday claims. The following sentences are perfectly acceptable, to the author at least, and clearly contain modulations plus perfective *have*:

2.13 You must have finished that essay by tomorrow.

2.14 Yes, you can have finished it by tomorrow - you know you can do it quickly if you work hard.

These examples have a 'future perfect' interpretation. Palmer (1979: 94) has an example, taken from the data of the Survey of English Usage, which contains modulation *must have* in a clearly past time use:

2.15 There is no argument for saying that in a particular locality nobody must have lived there who earns more than twenty pounds a week.

This is a convenient point at which to consider two further arguments for syntactic differences between modals used with different meanings, which, although not put forward by Halliday, are to be found elsewhere in the literature. Palmer (1979: 33 ff.) claims that "the semantics [of the modals] can be closely associated with the syntactic

possibilities", and goes on to discuss three putatively syntactic criteria. The first of these, negation, was discussed above. The second is "whether the modality,¹ or the event, or both may be marked as past". Here, however, despite an earlier comment (1979: 25) that "we can distinguish between formal 'tense' and semantic 'time', and this terminological distinction will be made", Palmer in fact confuses the semantic and syntactic properties. He says that epistemic modality can be "marked as past" using such forms as *may have*, and yet claims that "with none of the kinds of modality does it seem that both modality and event can be marked for past tense". If *may have* is to be regarded as syntactically past tense, then Palmer is wrong in saying that there can be no double marking for past, since *might have* is perfectly grammatical. What he really means is that *may have* marks a past time event (a semantic property), and that there is no possibility of double marking for this past time.

Palmer's third 'syntactic' criterion concerns 'voice-neutrality'. Some modalised sentences are passivisable with no change of cognitive meaning: thus, Palmer's examples quoted as 2.16 and 2.17 are cognitively synonymous:

2.16 John may be meeting Bill.

2.17 Bill may be being met by John.

Other active/passive pairs are not synonymous, e.g. 2.18 and 2.19 with the volitional interpretation of *will*:

2.18 John won't meet Bill.

2.19 Bill won't be met by John.

¹ Note that Palmer uses the term 'modality' in a general sense to mean 'the modal component of the sentence', as indeed we shall in Chapter 8.

The existence and importance of such voice-based distinctions is beyond question: indeed, they will form part of our classification of the modals in Chapter 8. However, the distinction between voice-neutral and non-neutral types is basically a semantic distinction, in that synonymy of active and passive is dependent on certain semantic properties of the participants in the process: in 2.18 and 2.19, John and Bill are two entities with the power of volition, and this is what determines the lack of voice neutrality. Syntactically the important fact is that a sentence of the form $NP_1 - Aux - V - NP_2$ is paralleled here by an equally grammatical sentence of the form $NP_2 - Aux - been - V - by - NP_1$ (see Chomsky 1957: 43 for an early formulation of the passive transformation in these terms).

Finally, in this discussion of syntax and semantics in relation to the modals, it should be pointed out that the type of meaning expressed by a modal verb makes no difference whatever to the syntactic and morphological properties which mark it as a modal auxiliary.

Clearly, what is treated as syntactic and what as semantic depends to some extent on one's overall view of the grammar. It is, however, patently arguable that a modal verb is to be regarded as a unitary item at the syntactic level, whatever its meaning. In this case, it is obviously necessary to postulate a separate semantic level at which the different meanings of each modal verb can be described. Such a proposal would also allow us, in a full treatment, to relate the meanings of the modals to those of periphrastic forms such as *able to*, *allowed to*, *possible*, and so on, which will not be considered in detail here.

Let us now return to Halliday's account of the modals. A further unsatisfactory aspect of Halliday's approach to modality and modulation concerns the allocation of the system networks to the functional components of the grammar. As the title of the paper implies, the area of modalisation is seen as a good example of 'functional diversity' in language. Halliday argues (1970a: 245-50) that the systems of modality and modulation are (at least partially) reducible to a common set of systems, which can be approached via either the interpersonal or the ideational function, giving rise to modality and modulation respectively. Halliday's reasons for allocating modality to the interpersonal component are firstly that "modality is a form of participation by the speaker in the speech event" (p. 335), and secondly that modalities are not themselves subject to polarity and tense distinctions, and so are not part of the ideational content of the clause. Modulations, on the other hand, can themselves show tense and polarity distinctions, and are "part of the thesis - part of the ideational meaning of the clause" (p. 336). Halliday does, however, recognise (p. 349) that these allocations to components are not clear-cut: modalities, though interpersonal, lean towards the ideational because they express an opinion on the content of what is said; modulations, though ideational, are oriented towards the interpersonal because the 'passive' modulations are concerned with extrinsic effects on the subject of the clause, often emanating from the speaker. There is thus "a semantic region where the two functions, the ideational and the interpersonal, overlap" (p. 349). Halliday himself clearly does not see this as a shortcoming of the theory; linguists outside the

systemic tradition might, however, regard such fluidity as undesirable, and as casting doubt on the theoretical validity of the functional components hypothesis.

Closer examination of this area reveals even stronger reasons for doubt. Firstly, it is not only the passive modulations which show interpersonal colouring, as Halliday appears to suggest. The volitional modals can also be used, by some English speakers at least, to impose the speaker's will on the addressee, as in the following use of *shall*:

2.20 You shall do as I say, whether you want to or not.

Secondly, it will be remembered that Halliday's original justification for the functional components was that the system networks for English fell into three major blocks with relatively few interconnections compared with those within the blocks. Examination of mood and modalisation, however, reveals important connections between supposedly ideational and interpersonal networks. Halliday is clear on the relationship between modality and mood options: he states that modalities "are restricted to finite, declarative, independent clauses, and finite dependent clauses such as conditionals; there is also a minor system in the interrogative, whereby the speaker invites the hearer to express his assessment..." (p. 328). What Halliday does not point out explicitly, however, is that modulations are also restricted to clauses with either declarative or interrogative mood; that is, there is a general constraint on modalisation such that neither modality nor modulation can normally occur in clauses with imperative mood. This is only partly bound up with the defective morphology of the modals in having no non-finite forms: periphrastic

realisations of modality and modulation also sit very uneasily with imperatives. This point will be taken up again in Chapter 8; meanwhile, we may note that the dependency between modulation and mood is an important case of 'wiring' between systems in supposedly different functional components. Halliday could, of course, counter this objection by observing that the degree of connection between components is only claimed to be small relative to the connectedness of systems within a component. Nevertheless, unless some kind of quantitative limit can be placed, in a principled way, on the degree of connectedness of components, this way of motivating functional distinctions must inevitably lose much of its credibility.

Let us turn now to a further undesirable consequence of Halliday's semanticosyntactic approach. We suggested earlier that Halliday failed to capture the fact that the modal verbs show a very high degree of syntactic similarity despite their multiple meanings, and so could be regarded as syntactically unitary. What we are now claiming is that he also fails to provide a place in his model for semantically unmotivated syntactic diversity. If we consider a pair of verbs such as *order* and *suggest*, which can act as directive performatives, we see that their behaviour in syntactic complementation is rather different, although presumably no-one would want to suggest that these differences are themselves semantically motivated.

- 2.21 I order you to go.
- 2.22 *I suggest you to go.
- 2.23 ?I order that you go.
- 2.24 I suggest that you go.
- 2.25 *I order you go.
- 2.26 I suggest you go.

Such patterns have formed a fertile source of debate for transformational linguists: a Hallidayan approach, however, appears to ignore them. This criticism is also valid for Fawcett's semantic functional model: although the networks for mood, modality and modulation are regarded as semantic, so remedying much of the fluidity of Halliday's model, syntax is still regarded as the slave of semantics, so that there is no place for an account of purely syntactic phenomena. Hudson's autonomous systemic syntax, on the other hand, can cope very well with phenomena of the type illustrated in 2.21 - 2.26; however, it has nothing to say about the semantics, and so is, by itself, equally unsuitable for our purposes.

We are left, then, with Halliday's sociosemantic model, and the two-level approach of Martin, in which sociosemantic networks are linked to formal networks of the Hudson type. Certain criticisms of the sociosemantic model made by Fawcett (1975b) are relevant here. Fawcett suggests that although Halliday's work in this area is very valuable, we should not regard the 'sociosemantics' as a level of language. We shall first deal with those of Fawcett's objections for which counter-arguments in support of Halliday can be made.

One of Fawcett's objections is that "some of the most delicate options to the right of the networks are non-terminal, so that the network cannot function as a fully explicitly generative device" (1975b: 35). Presumably, however, Halliday could claim that his networks could be extended in delicacy to the point where actual items could be specified as realisations, together with their syntactic arrangement.

A further objection is that some of the more delicate options are very similar to those required in the lexicogrammar, so making for an unacceptable degree of redundancy in the model. The validity of this objection depends on one's view of the aims of a grammar. If the grammar is intended to be purely generative, with simplicity and elegance high on the list of priorities for its formulation, then a high degree of redundancy will indeed be unacceptable. If, however, we are interested in being able to give as complete an account as possible of linguistic phenomena at various levels of organisation, then some sacrificing of simplicity and elegance will be inevitable. Fawcett (1975b: 53) comments:

Does such a high degree of redundancy seem plausible?
We expect some, since human beings are not perfect machines, but is it likely that the human mind would put up with such gross inefficiency?

The assumption implicit in this remark, that the organisation of a grammar should reflect that of the human language-processing machine, is perhaps natural in the context of Fawcett's own cognitively-oriented model (see Fawcett 1980), but is hardly fair in the context of a Hallidayan approach, with its explicitly sociological rather than psychological bias.

A third objection raised by Fawcett is valid with respect to the sociosemantic model as a whole, though probably not with respect to the specific area of mood semantics, which is important for the present work. It arises from Halliday's insistence that sociosemantic networks can properly be formulated only for contexts predicted as relevant on the basis of some social theory, and his admission that "of the total amount of

speech by educated adults in a complex society, only a small proportion would be accessible to this approach" (Halliday 1972/1973a: 92). This is indeed a sad indictment of the model in general. It is possible that the difficulty could be circumvented by abandoning the notion of restricted contexts and constructing more general networks, whose terms would have probabilistic weightings allowing for variation in choice with features of social context; such an enterprise would, however, almost certainly encounter severe practical problems in handling the effect, on probabilistic factors, of combining socio-semantic features in different configurations. Halliday himself has given reason to think that the restriction of networks to particular contexts and settings is not necessary when dealing with communication roles, since these "are a special case in that they are a property of the speech situation as such, and do not depend on any kind of a social theory" (Halliday, 1971a/1973a: 56).

Fawcett's fourth objection, that the networks appear to relate to whole sentences and do not recognise internal structuring at the semantic level, certainly has substance to it. Halliday does not even make clear what he regards as the point of origin of his sociosemantic networks, nor indeed what kind of unit might qualify. Just as those systems treated as grammatical in Halliday's earlier work have grammatical units as their points of origin, and likewise phonological systems have phonological points of origin, so we might expect a rank scale of semantic units to provide points of origin for semantic networks. Halliday has in fact expressed the view that "whether or not, and in what sense, there is a rank scale, or hierarchy,

of semantic units, as some linguists have suggested, must be left undecided", and that in comparison with the notion of grammatical or phonological units "the concept of semantic units is much less clearcut, since the concept of semantic structure is less clearcut" (Halliday 1974/1978: 135).

A final objection, indeed the one which most disposes Fawcett to believe that sociosemantic networks do not represent a level of language, is that the least delicate options in Halliday's networks (e.g. 'threat' in Fig. 2.2) are not necessarily mediated via language, but can be realised through other semiotic codes (e.g. by raising a fist). As it stands, this criticism is only partially valid: if a behavioural option can be mediated via language, then as linguists we should try to account for these linguistic realisations and their ability to count as a particular type of behaviour, though we are not bound to attempt an account of those realisations involving other codes. After all, a request for information can be made by raising an eyebrow, but no linguist would suggest that because of this we should exclude from our studies the linguistic aspects of question-asking.

Fawcett does, however, have a valid point when he implies that Halliday's sociosemantic networks conflate two sets of phenomena which are in principle distinct: choices in behaviour, irrespective of code, and choices in meaning, which represent one form of realisation of behavioural choices. The mixing of heavily behavioural labels such as 'threat' with clearly intralinguistic labels such as 'if' type (hypotactic)' (see Halliday 1972/1973a: 89) in the same network certainly suggests that these networks are trying to account for too much

at a single level.

This final criticism raises an issue of especial importance for the present work. The crucial difficulty in the study of speech function lies in the wide variety of forms which can realise a given function, and conversely the variety of different functions which can be performed by a given form. Directives are particularly problematic in this respect, because of the socially sensitive character of acts which impose one's will on others. Indeed, all manner of indirect verbal means can be used in an attempt to secure action. The following examples are taken from the recent literature on this area.

2.27 It's after your bedtime. (Fawcett 1980: 101 -
'Go to bed')

2.28 Your water is lovely and hot now. (Downes 1977: 79 -
'Turn off the water heater', etc.)

2.29 The door is still open. (Sinclair & Coulthard
1975: 33 - 'Shut the door')

In a sociosemantic network, such 'opaque' directives would presumably be dealt with in the same network as more transparent types of directive containing some overt indicator such as an imperative, a performative or a modal verb. The functional similarity of the two kinds of directive is not in doubt: what is at issue is the extent to which this speech function is to be regarded as part of the semantics of the sentences concerned. It is to this important question that we turn in Chapter 3.

Meanwhile, in conclusion, we note that existing systemic theories either are unsatisfactory in respect of their view of

the relationship between forms and meanings (the Halliday approach and its offshoots in the work of Fawcett and Martin), or, if they view syntax and semantics as essentially autonomous, concentrate exclusively on syntax at the expense of semantics (as in the work of Hudson). It is part of our task in the present work to correct this imbalance by providing a (partial) systemic semantics for areas connected with directive function.

3: SPEECH ACTS AND SEMANTICS

3.1 Introduction

In Chapter 2, we showed that Halliday's semantically-oriented functional grammar was unable to account satisfactorily for the properties of modal verbs, because it claims that modality and modulation uses of modals are syntactically different (principally with regard to negation and tense), whereas the evidence in fact suggests that, with one or two minor exceptions, their syntactic properties are quite homogeneous. In order to capture this fact, and at the same time to allow for different semantic interpretations of the modals, we postulated distinct levels of syntactic and semantic representation. Such a model also has advantages in other areas: for example, unlike Halliday's model, it is consistent with the observation that syntactic complementation patterns (e.g. of the performative directive verbs *order* and *suggest*) appear to be unmotivated semantically, in many cases. The arguments, then, led us to the conclusion that there were properties of linguistic items which could not be accounted for at the syntactic level, but required the postulation of an additional semantic level; conversely, there are phenomena which appear to be purely syntactic, rather than semantically motivated.

In the present chapter, we move 'up' a level, while retaining a similar approach. Just as there are aspects of the behaviour of modal verbs, complementation patterns, and the like, which cannot be accounted for at the syntactic level, but require the postulation of a 'higher' semantic level, so

there may be aspects of the communicative functional potential of sentences which cannot justifiably be accounted for at the semantic or syntactic levels.

Much of the relevant work in this area has been done by non-systemic linguists, working within the 'speech act' framework pioneered by Austin (1962) and developed by Searle (1969). We first discuss the concepts of 'performative' and 'illocutionary force', and then turn to the problem of 'opaque', or 'indirect', speech acts, in which there is a discrepancy between the apparent force of an act (as determined by unmarked correlations with mood) and the force which is intended to be inferred by the hearer. Indirect speech acts focus sharply the main concerns of this chapter, viz., whether the whole of the communicative potential of an utterance can be accounted for in terms of the semantic and syntactic properties of the sentence underlying that utterance. Since modalised sentences with potentially directive function are themselves indirect speech acts these questions are clearly of crucial interest for our study.

Three positions can be recognised with respect to the analysis of indirect speech acts (see Sadock 1974). One extreme position is that the intended communicative function of an utterance is itself part of the meaning: this position is dubbed by Sadock the 'use-meaning hypothesis'. At the opposite extreme, we have the 'surface-meaning' view, that only those properties of sentences which are context-independent, and relate closely (though not necessarily in a 1:1 fashion) to the surface syntax, can be regarded as truly semantic, any further meaning being a matter of deduction, by

means of general 'conversational rules', of the kind proposed by Grice (1975, 1978). The third, intermediate, position (Sadock's own 'meaning-meaning hypothesis') is that some aspects of the indirectness of indirect speech acts are part of the semantics, while others are not.

We discuss each of these positions, and criticisms of them in the literature, and conclude that there are sound arguments against the 'use-meaning' and 'meaning-meaning' hypotheses, but that Sadock's criticisms of the 'surface-meaning' view are all answerable.

In the light of these arguments, we then examine the rather smaller contribution of systemic linguists to this debate. Halliday's (1977a) approach (which differs from that of the speech act philosophers in stressing the interactive properties of speech acts), is essentially of the 'use-meaning' type, and suffers from all the disadvantages of this model; furthermore, his account is sketchy and reveals considerable problems on closer scrutiny. Fawcett (1980), like Sadock, adopts a mixed approach to indirect directives, bringing some aspects of requestive function within the semantics, but leaving others to be accounted for by 'intended deduction'; however, he presents no strong arguments for this position. Hudson (1975) takes a 'surface-meaning' view, in which the range of possible illocutionary forces of an utterance is worked out from certain inherent, context-independent, semantic properties of the underlying sentence, plus a knowledge of Gricean conversational rules, and of relevant aspects of the linguistic and non-linguistic context. Hudson's arguments appear strong, and provide a unitary basis for the interpretation of direct and indirect speech acts.

We shall thus emerge from this chapter with the view that only a limited part of the communicative function of directives (or, indeed, other types of speech act) can be accounted for in semantic terms.

3.2 Basic theory: Austin and Searle

In *How to do things with words* (1962), Austin draws a distinction between 'constative' and 'performative' utterances. Constatives simply describe some state of affairs: they are statements, and the propositions expressed in them are either true or false. Performative utterances, on the other hand, actually do something by means of language, and are not subject to the true/false distinction. To use one of Austin's examples (1962: 5), if we say 3.1 at the appropriate stage in a ship-naming ceremony, and accompany the utterance with the requisite conventional actions, we are performing an act of naming, and not merely describing a state of affairs.

3.1 I name this ship the 'Queen Elizabeth'.

Austin's work was concerned largely with the question of how performative utterances could be brought within the purview of linguistic philosophy.

Austin further pointed out that performative utterances need not contain an explicit performative verb (such as *name* in 3.1). An act of promising, for instance, can be performed just as well by uttering 3.2 as by uttering 3.3 (Austin's examples, p. 69), though 3.3 clearly makes the act more explicit.

3.2 I shall be there.

3.3 I promise that I shall be there.

Austin calls the former type 'primary performatives' and the

latter type 'explicit performatives'. The commonest type of explicit performative contains a performative verb in the first person present active, as in 3.3 above, but this is not the only type, as shown by examples such as 3.4 (p. 57).

3.4 Passengers are warned to cross the track by the bridge only.

Even the examples with explicit performative verbs could be taken to describe a (habitual) state of affairs, although the ambiguity can be removed by addition of *hereby* as in 3.5 and 3.6.

3.5 I hereby promise that I shall be there.

3.6 Passengers are hereby warned to cross the track by the bridge only.

Austin later realised that the distinction between constative and performative utterances was unclear, in that stating that something is or is not so is itself a kind of 'doing by means of saying'. The performative element can be made explicit, as in 3.7 (p. 133).

3.7 I state that he did not do it.

cf. 3.8 He did not do it.

A further, highly significant development in Austin's theory of speech acts was the distinction between 'locutionary', 'illocutionary' and 'perlocutionary' acts. The locutionary act involves the production of certain sequences of sounds, in certain constructions, with associated sense and reference. In the performance of a locutionary act, the speaker, in general, also performs an illocutionary act, whose nature is determined by the way in which the locution is being used, whether to give information, ask a question, and so on. An

illocutionary act is characterised by Austin (p. 99) as 'performance of an act *in* saying something as opposed to performance of an act *of* saying something' (original emphasis). The way in which the utterance is being used is its 'illocutionary force'. In performing a locutionary and an illocutionary act, the speaker may also be performing a perlocutionary act. If an illocutionary act is the performance of an act in saying something, then a perlocutionary act can be seen as the performance of an act by saying something. For example, Austin considers the acts of informing, ordering, warning, undertaking and the like as illocutionary, while those of convincing, persuading, deterring, surprising, misleading, and so on, are perlocutionary.

A further aspect of speech acts discussed in some detail by Austin is the set of 'felicity conditions' which must be met if the act is to be successfully performed. Various types of infelicity are explored, including 'misinvocations' of procedures which cannot be made to work in the way intended, 'misexecutions' in which the act is vitiated by non-adherence to the rules (e.g. of a ceremony), and 'insincerities' where the speaker does not have certain feelings or intentions connected with the successful performance of the act.

Austin ends his treatment of speech acts with a classification of utterances according to the type of illocutionary force shown:

Verdictives - concerned with the giving of a verdict, estimate, reckoning, appraisal, etc.

Exercitives - concerned with the exercising of powers, rights or influence.

Commissives - involving undertakings to do something.

Behabitives - concerning social attitudes, such as are shown in apologies, congratulations, etc.

Expositives - concerning the way in which utterances fit into the pattern of discourse, as in acts of stating, questioning, replying, arguing, etc.

Searle (1969), in an important contribution to the development of speech act theory, makes a distinction between the propositional content of an utterance and its 'illocutionary force indicator', a device showing how the proposition is to be taken. Searle recognises (1969: 30) a range of such illocutionary force indicators, including word order, stress, intonation, punctuation, mood and explicitly performative verbs. He goes on to present sets of rules for the use of the illocutionary force indicator for promising. Similar rules are sketched in for other illocutionary acts such as requesting, commanding, stating, questioning, thanking, advising, warning, greeting and congratulating. The rules are of four kinds:

Propositional content rules: requesting, ordering, commanding, advising, etc., are concerned with the performance of a future act by the addressee; stating and questioning are concerned with propositions rather than acts.

Preparatory rules: these cover various initial conditions which must be met if the act is to be successful. For instance, in uttering a request or a command, the speaker must believe that it is possible for the addressee to do what is required of him, and it must not be obvious to

either party that the addressee will perform the action in the normal course of events without being asked to do so.

Sincerity rules: these cover feelings or attitudes which the speaker must hold if he is to perform the act sincerely. For instance, the issuer of a command must want the addressee to do what is being asked of him, and the utterer of a piece of advice must believe that the action being recommended is in the addressee's best interests.

Essential rules: these encapsulate the nuclear illocutionary significance of the act; that is, they specify what the act counts as. Thus an order or request counts as an attempt to get the addressee to do something, and a question counts as an attempt to elicit information from the addressee.

More recently, Searle (1976) has presented a critique of Austin's classification of illocutionary forces, and proposed a new classification, based on more consistent criteria, which is foreshadowed in the earlier work (1969: 70).

Searle discusses a number of dimensions along which illocutionary acts can vary, and of which he regards three as being particularly important. The 'illocutionary point' of an act is simply the speaker's purpose in performing that act, and may, in some cases though not all, include an intended perlocutionary effect (e.g. the point of a request is to secure action on the part of the addressee). Illocutionary point corresponds to the 'essential condition' of Searle's 1969 analysis which, he believes, forms 'the best basis for classification'. A second

important consideration, which arises out of the illocutionary point of an act, is what Searle calls 'direction of fit'. An assertion, for example, is an attempt to get one's words to match a situation in the world to which the utterance refers ('words-to-world' fit); while a request is an attempt to get something to happen in the world to match the speaker's words ('world-to-words' fit). The third criterion on which Searle's classification is based is the psychological state, if any, expressed in the act. A statement, for example, expresses belief, while a request expresses desire or want, and a promise expresses intention.

Other distinctions needed to differentiate more delicate classes of act include: the strength with which the illocutionary point is presented (e.g. suggesting as against insisting); considerations of authority status (e.g. in ordering as against requesting); the way in which the utterance relates to the interests of speaker and hearer (e.g. congratulating as against condoling); aspects of the propositional content which are inherently related to the illocutionary force (e.g. a report can be about a past event, but a prediction must refer to the future); the distinction between those acts which are always speech acts and those (e.g. estimating, concluding) which do not necessitate the performance of any overt act; the fact that certain acts (e.g. christening, excommunicating) require extralinguistic institutions; the distinction between acts which have a corresponding performative verb and those (e.g. threatening, boasting) which do not; and differences in the style in which the act is performed (e.g. announcing as against confiding).

While recognising the pioneering nature of Austin's work, Searle points to a number of weaknesses in Austin's taxonomy of illocutions. Searle's most serious criticism is that Austin's categories are not based on any consistent set of classificatory criteria: the definition of commissives is indeed based on illocutionary point, but that of exercitives appears to involve authority status, while that of behabitives involves the expression of psychological states and the interests of speaker and hearer. Further, Searle points out that the categories of Austin's taxonomy are somewhat heterogeneous and show considerable overlap, and that not all the verbs listed under any one category actually satisfy the definitions of that category. Finally, Austin's classification is actually a taxonomy of illocutionary verbs rather than of illocutionary acts.

Searle goes on to propose an alternative classification based primarily on illocutionary point, supplemented by reference to direction of fit and the nature of the psychological state expressed. Searle's classification (1976: 10-16) is summarised in Table 3.1 overleaf.

Searle's revision of Austin's taxonomy has recently been criticised by Katz (1977), on the grounds that "there is nothing to prevent Searle from introducing any new conceptual distinction that may seem to describe a difference among illocutionary acts. Searle's classification can thus be criticised on exactly the same basis as Austin's, namely having no consistent principle of classification" (Katz 1977: 198). Katz himself claims to present a more principled basis for classification. He proposes semantic representations for performa-

Table 3.1

Searle's taxonomy of illocutionary acts

CLASS	ILLOCUTIONARY POINT	DIRECTION OF FIT	PSYCHOL. STATE	EXAMPLES
Representatives	To commit speaker (in varying degrees) to something's being the case, to the truth of the expressed proposition.	words to world	Belief	State, conclude, boast, etc.
Directives	Attempts (of varying degrees) by the speaker to get the hearer to do something.	world to words	Want	Order, command, request, beg, ask, permit, advise, suggest, etc.
Commissives	To commit speaker (in varying degrees) to some future course of action.	world to words	Intention	Promise, etc.
Expressives	To express the psychological state specified in the sincerity condition, about a state of affairs specified in the propositional content.	None	Various	Thank, congratulate, apologise, condole, etc.
Declarations	To bring about correspondence between the propositional content and reality.	words to world and world to words	None	Appoint, nominate, marry, etc.

tives, which have two major branches, one concerned with the nature of the act, the other with its purpose. Katz suggests that the information determining the classification of illocutionary acts is that in the second (purpose) branch: "informally, the principle is that the purposes of illocutionary acts and these alone determine the types of illocutionary acts" (Katz 1977: 199).

Katz's suggestion appears to amount to nothing more than a formalisation of the claim that illocutionary point, as seen in Searle's work, should be the sole classificatory criterion. Furthermore, Katz's scheme is open to the same objections which he raises to Searle's and Austin's classifications, in that there is no obvious constraint on what can go into the 'purpose' branch of his semantic representations. Since, as Katz himself admits (1977: 63), "the question of which semantic markers are defined and which primitive can be answered only in a more advanced state of the discipline", we do not yet have a stock of primitive markers whose combinations might represent a restriction on the postulation of complex defined markers. Katz's claim to have presented a more principled and constrained basis for the classification of illocutionary acts thus appears to be vacuous. Katz, in fact, proposes a classification into seven primary types, according to purpose. 'Requestives', 'advisives' and 'permissives' appear to be subclasses of Searle's directives. Katz's 'obligatives' are equivalent to commissives in Searle's and Austin's taxonomies. 'Expressives' are identical to the class of the same name in Searle's scheme. Katz's 'expositives' match Searle's representatives; and 'stipulatives' are a subset of declarations. In view of the fairly obvious mapping rela-

tions between the two classifications, there seems to be little point in preferring Katz's, except where he refines Searle's classes, as in the case of directives. Much the same can be said of the taxonomy proposed by Fraser (1974, 1975), who again classifies illocutionary acts according to the intention of the speaker in performing the act. Fraser classifies performative verbs into eight types: those expressing acts of asserting, evaluating, stipulating, requesting, suggesting, committing oneself, exercising authority, and acts reflecting the speaker's attitude. The correspondences with Searle's classification are not quite so clear here as with Katz's scheme; nevertheless, very similar principles are involved. A classification rather similar to Austin's is proposed by Vendler (1972), and Ohmann (1972) produces a rather more detailed breakdown, intended to be applicable to stylistic studies. For a useful comparison of these various classifications, see Hancher (1979).

Let us now summarise the position so far. It would seem that the most important factor in characterising the illocutionary force of an utterance is the 'illocutionary point', that is, the speaker's intention in producing the utterance. This may involve an attempted perlocutionary effect: indeed, this is so in the case of the directive speech acts in which we are especially interested, since such acts count as an attempt to get the addressee to do something. The distinction between illocutionary and perlocutionary aspects of the speech act is thus blurred. We can now rephrase the question which the present chapter is trying to answer: is illocutionary force (or to be more precise, illocutionary point, which may contain a perlocutionary component) to be regarded as part of

the semantic representation of a sentence?

It would certainly be quite mistaken to claim that illocutionary force has nothing at all to do with the legitimate concerns of the linguist, whatever various schools of thought may consider these to be. A number of writers have pointed out that the syntactic and semantic properties of a sentence impose restrictions on the range of illocutionary forces which that sentence can be used to convey. Searle (1969: 18) writes that "the speech act or acts performed in the utterance of a sentence are in general a function of the sentence" although "the meaning of a sentence does not in all cases uniquely determine what speech act is performed in a given utterance of that sentence, for a speaker may mean more than what he actually says." Fraser (1973) takes a similar line.

Mittwoch (1976) also rejects the view that illocutionary force can be entirely divorced from grammar, pointing out that there are regularities in the relationships between illocutionary force and sentence type (i.e. mood) in that, for instance, what she calls 'plain statements' must be realised as declaratives, and 'genuine questions' as interrogatives. Mittwoch's claims here are debatable: it could perhaps be claimed that 3.9, for example, could be taken as a 'genuine question':

3.9 I want to know your name.

Much depends on what is meant by 'straight' and 'genuine' in the terms used. What is beyond dispute, however, is that there are certain unmarked correlations between illocutionary force and syntactic mood, such that imperatives are interpreted as commands, interrogatives as questions, and declaratives as statements, unless there is good reason to do otherwise.

It is, of course, the nature and explanation of alternative speech act interpretations of sentences in context which creates the difficulty and the fascination of this area; and it is, indeed, the possibility of mismatching between apparent force (as determined by unmarked correlations with mood) and intended communicative effect which is crucial to the problem of whether illocutionary point forms part of the semantic representation of sentences. It is to such matters that we now turn our attention.

3.3 Indirect speech acts

3.3.1 The 'surface-meaning' approach

Let us first remind ourselves of the basic tenet of this approach: it is that the basic meaning of an indirect speech act is that which can be interpreted by (not necessarily one-to-one) correlation with surface form, and that any additional communicative effect is due to the operation of certain 'rules of conversation'. We shall first consider briefly the conversational rules, and then discuss Gordon & Lakoff's attempts to formalise these as 'conversational postulates'. Criticisms of Gordon & Lakoff by Sadock will then be discussed, and for each of Sadock's points criticisms by Leech, favouring the 'surface-meaning' position, will be summarised, and certain of his arguments expanded with supporting data.

3.3.1.1 The Gricean conversational maxims

Grice's work (1975, 1978), based on lectures which appeared originally in 1968, is concerned with certain principles regulating conversational interaction, and, in particular, with the ways

in which what is meant can be implicated, often very indirectly, by what is said. Grice suggests that participants in conversation are expected, other things being equal, to observe a 'Co-operative Principle' (CP) of a very general nature: "make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged" (Grice 1975: 45).

Within this overall principle, Grice recognises four specific sets of maxims. The maxim of quantity requires speakers to be as informative as is required, but not more so. The maxim of quality enjoins us not to say anything which we believe to be untrue, or for which we lack adequate evidence. Under the maxim of relation, a speaker is required to make his contribution a relevant one. The maxim of manner is concerned with the avoidance of obscurity and ambiguity, and the cultivation of reasonable brevity and orderliness in our conversational contributions.

Grice goes on to point out that there are various ways in which participants in conversation may fail to fulfil the requirements of these maxims. We may simply violate a maxim, without making it obvious that we have done so, in which case we are liable to mislead our hearers; we may opt out of the requirements, for instance by refusing to give information; we may be unable to satisfy all the maxims because of a clash in their respective requirements. Finally, we may, in an obvious way, flout a maxim, in which case our hearers will be led to attempt a reconciliation of what we have said with the assumption that we are acting in accordance with the CP. This situation characteristically gives rise to 'conversational implicatures'. Informally, we may say that if a speaker says something

which appears to flout one of the maxims, and if normal conditions obtain in that we can assume adherence to the CP, then as hearers we shall attempt to find some proposition which will account for the utterance in question, and which can be worked out from it, given the conventional meaning of the words spoken, and our knowledge of the linguistic and extra-linguistic context.

As an instance of such conversational implicature, we may take Grice's example of a reference written by a tutor for one of his students, who has applied for a lecturing post. The tutor, in his reference, merely comments on the student's command of English and his regular attendance at classes. The prospective employer can assume that the tutor is not opting out of the CP, otherwise he would presumably not have written the reference at all. As the student's tutor, the writer has access to information about the candidate. He knows that more information is required, but is clearly unwilling to give it. By flouting the maxim of quantity, the tutor implicates that the student is a poor candidate for the post.

Grice's conversational implicatures, then, relate what is actually said to what is conveyed, and are thus obviously of considerable interest for any theory which attempts to go beyond the literal, conventional meaning of sentences, to examine the functional value of utterances in context.

One further point about Grice's conversational maxims is important in connection with our present concerns. In all the examples discussed by Grice, the literal and the implicated interpretation of an indirect speech act are of the same illocutionary type, viz. assertion. What is needed for a wider

account of indirect speech acts is a mechanism whereby an utterance with one type of apparent illocutionary force (e.g. assertion) can be reinterpreted as having a different type of force (e.g. directive). There would seem to be, in principle, no objection to the extension of Grice's rules to cover such cases. Indeed, later work (e.g. Searle 1975) has tended to assume that such an extension can be made. For further discussion of this point, see van der Auwera (1978).

3.3.1.2 Gordon & Lakoff's treatment of indirect speech acts

The work of Gordon & Lakoff (1971) is an attempt to formalise the insights of the Gricean conversational maxims in terms of 'conversational postulates' which, in certain classes of context, specify the entailment of one set of meanings by another. They distinguish between speaker-based sincerity conditions on speech acts, and hearer-based conditions. The following condition, for instance, is speaker-based, since the speaker is the subject of WANT:

SINCERE (a, REQUEST (a,b,Q)) \longrightarrow WANT (a,Q)

(where Q is of the form FUT (DO(b,R)) [b will do act R]

[i.e. if a sincerely requests of b that b do R, then a wants b to do R]

On the other hand, the following is a hearer-based condition, since the hearer is the subject of the sentence saying what it is the speaker assumes:

SINCERE (a, REQUEST (a,b,Q)) \longrightarrow ASSUME (a, CAN (b,Q))

[if a sincerely requests of b that b do R, then a assumes b can do R]

Gordon & Lakoff's most general claim is that 'one can convey a

request by (i) asserting a speaker-based sincerity condition or (ii) questioning a hearer-based sincerity condition" (1971: 65). The more specific conversational postulates below are derivable from this general principle.

SAY (a,b, WANT (a,Q))* \longrightarrow REQUEST (a,b,Q)

ASK (a,b, CAN (b,Q))* \longrightarrow REQUEST (a,b,Q)

ASK (a,b, WILLING (b,Q))* \longrightarrow REQUEST (a,b,Q)

ASK (a,b,Q)* \longrightarrow REQUEST (a,b,Q)

[where, as above, Q is of the form FUT (DO(b,R))]

The asterisks in the above formulation indicate Gordon & Lakoff's claim that the conversationally implied meaning (i.e. the request) is conveyed only if the literal meaning (shown by the left hand side of the postulate) is not intended to be conveyed, and the hearer realises this. This claim has been disputed by Mohan (1974: 449), Green (1973: 74) and Lyons (1977: 785), who point out that since literal answers to whimperatives are appropriate under certain circumstances, whimperatives must still partially operate as questions. Mohan's example is quoted below:

3.10 (= Mohan's 10/12) Can you tell me where the dog-
pound is? No, I can't.

Gordon & Lakoff's postulates, as given above, will account for the use of 3.11 - 3.14 below as requests:

3.11 (= G. & L.'s 2a) I want you to take out the garbage.

3.12 (= G. & L.'s 2b) Can you take out the garbage?

3.13 (= G. & L.'s 2c) Would you be willing to take out
the garbage?

3.14 (= G. & L.'s 2d) Will you take out the garbage?

In accordance with the 'surface-meaning' hypothesis, each of the relevant postulates includes, on its left hand side, a performative verb of asserting or questioning. Thus 3.11 is regarded as basically a statement, and 3.12 - 3.14 have the underlying semantics of questions, although these primary meanings are, as it were, blocked by the operation of the conversational postulates, which determine a secondary request sense.

Although Green (1973) has criticised Gordon & Lakoff's work on several grounds, all these criticisms have been refuted by Gazdar & Keenan (1975), and there can be no doubt that the conversational postulates idea is still extremely influential in this area. Lyons, for example, (1977: 785) gives a basically 'surface-meaning' account of indirect speech acts, distinguishing between their primary illocutionary force, which is derivable from surface form, and their secondary illocutionary force, which is determined from the meaning of the sentence and its primary force, by means of conversational postulates of the Gordon & Lakoff type.

3.3.1.3 Sadock's criticisms, and counter-criticisms to these

Sadock (1974) offers three types of evidence against the surface-meaning hypothesis.

Firstly, Sadock points out that the surface-meaning approach would treat pairs of examples such as 3.15 and 3.16 in exactly the same manner, deriving the request force from an underlying question meaning in each case:

3.15 (= Sadock's 17) Can you close the door?

3.16 (= Sadock's 18) Are you able to close the door?

However, as Sadock observes, 3.15 is a normal request, while 3.16 is less direct. We shall see in §3.3.3 that Sadock's own hypothesis assigns different semantic interpretations to the two sentences. Morgan (1978) has, however, put forward an attractive alternative explanation. He distinguishes between 'conventions of language' and 'conventions of usage', both of which are involved in the interpretation of speech acts. Conventions of language are concerned with the arbitrary relations between form and meaning (e.g. that *dog* refers to a particular kind of animal in English); conventions of usage, on the other hand, are concerned with what kinds of thing (and sometimes what specific things) one is expected to say in certain situations within a particular culture. Morgan (1978: 269) observes that "the former, conventions of the language, are what make up the language, at least in part. The latter, conventions of usage, are a matter of culture (manners, religion, law ...) not knowledge of language per se." He is then able to propose that speakers use imperatives of the *Can you ...?* type with their literal meaning (a matter of conventions of language), but also in the knowledge that there is a convention of usage to the effect that the use of *Can you ...?* is a standard way of indirectly requesting someone to do something. The request is conveyed via the Gricean conversational maxims, but because of the convention of usage the implicature is 'short-circuited' and no longer needs to be actually calculated. This proposal explains the difference between *Can you ...?* and the more indirect-seeming periphrastic form *Are you able to ...?* In that in the latter case the implicature is not short-circuited (since no convention of usage is operative) and so needs to be calcu-

lated. If we accept Morgan's very reasonable proposal, 3.15 and 3.16 can thus be seen to differ, not in their semantics, but in their relation to conventions of usage, and Sadock's argument against the surface-meaning view collapses.

Sadock's second argument is that the surface-meaning account involves the duplication of syntactic rules. Illustrating his case by reference to 'queclaratives' (sentences with interrogative syntax, but having the force of negative assertions), Sadock shows that under the surface-meaning account, an interpretive device would be needed which mirrors the syntactic rules of queclarative formation and negative raising.

Counter-criticism of Sadock's claims on queclaratives has been made by Leech (1977b). In arguing that queclaratives are derived from underlying statements of opposite polarity, Sadock claims that queclaratives, such as 3.18, are ambiguous in the same way as negative statements such as 3.17.

3.17 (= Leech's 7) Brezhnev doesn't believe that God
exists.

3.18 (= Leech's 8) Does Brezhnev believe that God exists?
It is difficult to disagree with Leech's criticism, namely that while 3.17 is indeed ambiguous as between an interpretation where Brezhnev is a non-believer and one in which he is an atheist, no such ambiguity is in fact shown by 3.18. Leech also rejects a supporting argument advanced by Sadock, that items requiring a negative environment can occur only in positive queclaratives, so again suggesting that queclaratives derive from statements of opposite polarity. As Leech points out, negative-polarity items can also be used in negatively-conducive genuine questions such as 3.19; furthermore,

positive-polarity items such as *already* can be given a queclarative or a positively-conducive genuine question interpretation in cases such as 3.20.

3.19 (= Leech's 11) What do you think, Trevor? Do the MCC stand a cat's chance in hell of winning back the ashes?

3.20 (= Leech's 12) Haven't I already given you the money?

Leech further notes that queclaratives can be followed by a reply, something which is not predictable under Sadock's hypothesis:

3.21 (= Leech's 13) Was she in the least worried?
Not her! / Like hell she was!

Finally, Leech's observation of Sadock's failure to distinguish between exclamatory and rhetorical questions in discussing queclaratives completes a rather damning indictment of the arguments based on this area.

Sadock's third piece of evidence against the surface-meaning approach is his claim that it is unable to handle the distribution of certain items such as *please*, which are related to illocutionary force. As demonstrated by Sadock, sentence-adverbial *please* can occur with imperative-form sentences which have request force, but not with those 'pseudo-imperatives' which do not have this force. Furthermore, *please* can occur with requests of non-imperative form; thus the distribution appears to be related not to surface form but to encoded illocutionary force.

3.22 (= Sadock's 86) Please bring me a towel.

3.23 (= Sadock's 87) Bring me a towel, please.

3.24 (= Sadock's 88) *Take one more step, please, and
I'll shoot.

3.25 (= Sadock's 91) Would you please remove your hat?

3.26 (= Sadock's 93) I'd like a package of Pall Malls,
please.

Sadock himself uses co-occurrence with preverbal *please* as one of the tests for distinguishing truly semantic requests such as 3.27 from sentences whose potentially requestive function is not semantic, such as 3.28 (see also §3.3.3).

3.27 (= Sadock's 23) Will you close the door?

3.28 (= Sadock's 24) When will you close the door?

Gordon & Lakoff have attempted a defence of their surface-meaning position in the face of this criticism, claiming that since questions can be regarded as requests for information, they naturally take *please*. Sadock refutes this explanation, however, by showing that non-question requests can also take *please* (as in 3.26 above), and that many questions used as indirect requests cannot take this adverbial:

3.29 (= Sadock's 97) *Isn't it too cold in here, please?

However, Sadock's claims on *please* are themselves open to criticism. Although it is true that co-occurrence with pre-verbal *please* is limited to imperative- and whimperative-form directives, it is also true, on Sadock's own admission, that if all positions of *please* are considered, its occurrence turns out to be possible with any sentence uttered with directive illocutionary force, but not if any other force is intended. Sadock's hypothesis provides no explanation for this; Leech, however, sensibly suggests (1977b: 142) that "such syntactically peripheral elements may be more easily constrained in pragmatic

than syntactic terms", and that *please* may be adequately characterised as a marker of politeness, used when the speaker wants to obtain a favour from the addressee.

Let us now consider a wider range of data than is discussed by either Sadock or Leech:

- 3.20 Open the door.
- 3.21 Please open the door.
- 3.22 Please, open the door.
- 3.33 Open the door, please.

- 3.34 Would you open the door?
- 3.35 Please would you open the door?
- 3.36 Please, would you open the door?
- 3.37 Would you please open the door?
- 3.38 Would you open the door, please?

- 3.39 I'd like the door open.
- 3.40 *Please I'd like the door open.
- 3.41 Please, I'd like the door open.
- 3.42 *I'd please like the door open.
- 3.43 I'd like the door open, please.

- 3.44 It's awfully hot in here.
- 3.45 *Please it's awfully hot in here.
- 3.46 Please, it's awfully hot in here.
- 3.47 *It please is awfully hot in here.
- 3.48 *It's awfully hot in here, please.

Initial *please* followed by an intonation break can occur with any sentence type having the force of a command or request in a particular context. With declaratives making reference to the speaker's wishes, as well as with imperatives and whimperatives, but not with the most opaque speech acts which do not have similar 'propositional content' to the sentence intended to be conveyed, final *please* is possible. With imperatives and whimperatives *please* can also occur initially without an intonation break, or before the main verb (the two positions being, of course, equivalent in the imperative case). We thus find a gradient of restrictedness for *please*, such that in general (though see below) the more transparent the speech act, the less restricted are its patterns of co-occurrence with *please*. This is exactly the behaviour one might expect if *please* is indeed constrained 'pragmatically', as Leech suggests, since, as Downes (1977: 80) has pointed out, the use of such a marker is an overt indication that one is asking a favour, and there is therefore some degree of incongruity between this and the use of a highly covert form of the requestive speech act.

It will be noted that whimperatives are just as unrestricted as imperatives with respect to their co-occurrence with *please*. This could be explained as a saturation phenomenon: the degree of transparency of a whimperative is sufficient to allow the full range of *please* co-occurrence, the greater transparency of the imperative having no further effect. We shall meet a further example of such a saturation effect in discussing the results of informant testing on politeness in Chapter 10.

We conclude, then, that Sadock's criticisms of the surface-meaning approach are all answerable, and are themselves susceptible to counter-criticism; they do not, therefore, afford good reason for rejecting the surface-meaning view. In §3.3.3, we shall see that Sadock's own proposals are also open to serious criticism.

3.3.2 The 'use-meaning' approach

As Sadock (1974: 77) points out, Heringer (1972), in his analysis of indirect illocutionary acts, adopts a basically 'use-meaning' approach, in that the semantic specification of an illocutionary act includes a marker of the force with which the utterance is being used, irrespective of the surface form of the sentence. The following specifications are given for illocutionary acts of asserting, questioning, and so on (Heringer 1972: 22).

Assertions, Granting of permission

SAY (S,H,p)

SAY (S,H, (ALLOW (S, (DO(H,A))))))

Questions

IMPERE (S,H, (SAY (H,S,p)))

Promises, Offers

PROMOFF (S,H, (DO (S,A)))

Commands, Requests, Asking permission

IMPERE (S,H, (DO (H,A)))

IMPERE (S,H, (ALLOW (H, (DO (S,A))))))

[where: PROMOFF = semantic content common to promises and offers

IMPERE = semantic content common to command, order,
request, ask, etc.

S = Speaker; H = Hearer; A = Act; p = Proposition]

(Davison 1975), however, she concludes rather pessimistically that no fully satisfactory solution to the problem of illocutionary force representation in the underlying structure of indirect speech acts has yet been proposed.

Let us now consider the arguments advanced by Sadock (1974) against the 'use-meaning' position. He first points out that the 'use-meaning' approach, like the 'surface-meaning' view, treats 3.15 and 3.16 (repeated for convenience below) as equivalent from the point of view of illocutionary force representation.

3.15 (= Sadock's 17) Can you close the door?

3.16 (= Sadock's 18) Are you able to close the door?

Under the 'use-meaning' hypothesis, both would contain an underlying marker of request status, when used as requests. We saw in §3.3.1.3 that the added opacity of 3.18 as compared with 3.17 could be explained by Morgan's distinction between 'conventions of language' and 'conventions of usage', the latter being able to allow short-circuiting of normal implicatures, if we take a 'surface-meaning' view. Under a 'use-meaning' view, however, there is no question of short-circuiting implicatures, since there are no implicatures; we are thus forced to agree with Sadock that such a position offers no explanation for the difference in degree of directness between 3.17 and 3.18.

Sadock's second argument against the 'use-meaning' position is that it involves duplication of the information given in semantic well-formedness conditions. He points out, for example, that the ungrammaticality of 3.52 below, as compared with the grammaticality of 3.51, is accounted for by semantic

well-formedness conditions applying to assertions, but that since 3.51 can be used as a warning, these conditions would have to be repeated by the rules which take us from underlying representations of warning force to all the possible surface manifestations of that force.

3.51 (= Sadock's 27) I firmly believe that's a bear.

3.52 (= Sadock's 26) *I quickly believe that's a bear.

Sadock's argument here appears to be sound, as it is not susceptible to the kind of objections which weaken his similar claim about the duplication of syntactic rules in the 'surface-meaning' model (see §3.3.1.3).

We conclude, then, with Sadock, that the 'use-meaning' position is untenable. It should be stressed, however, that although we cannot accept the theoretical position held by Heringer, there is much that is valuable in his work on indirect speech acts, and we shall in fact refer to it in Chapter 9.

3.3.3 The 'meaning-meaning' approach

Sadock's (1974) alternative to the 'surface-meaning' and 'use-meaning' approaches is to take a middle way, regarding, for example, the directiveness of some types of indirect directive as a truly semantic matter, while for other types the directive import is to be deduced by conversational rules. The first type of indirect speech acts, according to Sadock, are 'speech act idioms', while the second are 'speech act metaphors'. Much of Sadock's work is concerned with the proposing of tests to distinguish the two types, these tests being of three kinds: co-occurrence properties, paraphrase properties and grammatical properties. We shall consider these in turn.

In relation to co-occurrence properties, let us consider again 3.27 and 3.28, discussed by Sadock, and by Leech in the latter's critical review.

3.27 (= Sadock's 23) Will you close the door?

3.28 (= Sadock's 24) When will you close the door?

Sadock points out that 3.27, but not 3.28, will take *please* before the main verb: this is indeed so, but can be explained in alternative ways, as we saw in §3.3.1.3. Sadock's observations that 3.27, but not 3.28, can co-occur with the indefinite vocative *someone*, and with adverbials giving reasons for the speech act, are surely of doubtful validity. The present writer finds the following a possible indirect request, especially if *will* is stressed:

3.53 When will you close the door, someone, 'cos I'm
absolutely freezing in here.

Sadock's arguments on co-occurrence are thus very weak. Indeed, there is one piece of evidence from co-occurrence which strongly suggests that Sadock's account is wrong. As Downes (1977) has pointed out, the following can be used as mitigated commands/requests:

3.54 Maybe)
) you will come tomorrow.
 Perhaps)

3.55 Can)
) you, perhaps, open the door?
 Will)

As Downes observes, *maybe* and *perhaps* refer to the speaker's assessment of the probability of the propositional content being true (that is, they are realisations of modalities, in Halliday's sense). They are therefore compatible with the use of 3.54 as a prediction, and of 3.55 as an informational

question. They are not, however, compatible with commands or requests, since these cannot be true or false. We thus cannot claim that 3.54 and 3.55 are semantically commands or requests, unless we are willing to say that *maybe* and *perhaps* have different meanings, as used here, from those with which they are employed elsewhere. An account which needs just one meaning for the adverbial (and, indeed, just one for the interrogative) is clearly preferable, on the grounds of increased generalisation and economy, to one in which semantic properties are multiplied unmotivatedly.

Turning now to paraphrase relations, we have Sadock's claim that since paraphrases of whimperatives (e.g. with *be able to* in place of *can*) have added indirectness, the two types should be given different representations. We have already seen, in §3.3.1.3, that this can be accounted for, within a 'surface-meaning' framework, by Morgan's 'conventions of usage' hypothesis.

We are left with Sadock's arguments concerned with the grammatical differences between pairs such as 3.27 and 3.28. He claims that the request sense of 3.27, but not of 3.28, is lost on passivisation. The present writer finds both 3.56 and 3.57 odd (to the point of unacceptability if the agent is present, and not contrastively stressed), but 3.56 no odder than 3.57: the effect of the passive seems to be to add a further degree of indirectness to each.

3.56 Will the door be closed (by you)?

3.57 When will the door be closed (by you)?

Even if we agree with Sadock that these sentences are acceptable, and that 3.56 has lost its request sense to a greater

degree than 3.57, an explanation is available which does not involve postulating that the requestiveness of 3.27, but not of 3.28, is a semantic matter. If we take *will* in 3.27 as being volitional (and we shall see in Chapter 9 that there are good reasons for doing so), then passivisation will destroy this meaning, since if *will* in 3.56 were also volitional, the door would presumably have to be the entity in which volition resided (see the discussion of 'voice-neutrality' in §8.4.3.5). For this reason, 3.56, like 3.57, can have only a 'predictive' interpretation. Thus 3.27 loses its volitional interpretation on passivisation, becoming merely predictive. However, 3.28, because of *when*, is itself most readily interpreted predictively, and so does not change its cognitive meaning on passivisation. Note that substitution of *will* by *be willing to* in 3.27 leads merely to added indirectness, while in 3.28 it leads to ungrammaticality (unless the sentence is interpreted in a 'habitual' sense, not relevant here):

3.58 Are you willing to close the door?

3.59 *When are you willing to close the door?

Sadock's second observation is that 3.27, but not 3.28, can take the 'conditional' *would* form without the assumption of an antecedent:

3.60 (= Sadock's 41) Would you close the door?

3.61 (= Sadock's 42) When would you close the door?

It has been suggested, however, (see e.g. Leech 1969: 235) that even sentences such as 3.60 have an implicit condition.

Furthermore, note that if we substitute *could* for *would* in sentences of the above type, there is little difference between the two types, as far as our awareness of a possible antecedent

is concerned:

3.62 Could you go to the bank for me?

3.63 When could you go to the bank for me?

This suggests that if there are differences between 3.60 and 3.61, they are due to different meanings of *would*, and not to the whimperative construction itself. Again, we may invoke the volitional nature of 3.60, as against the predictiveness of 3.61.

The work of Green (1973) and Lee (1974) is also of relevance here, since they, like Sadock, attempt to distinguish between two groups of indirect speech acts: Green (1973: 68) between "true orders, requests, suggestions, etc." (which she collectively terms 'impositives') and "intentional *hints* and unintentional *clues*"; Lee between 'illocutionary' and 'perlocutionary' types, only the former being related in a systematic way to the syntax and semantics of the sentence.

Green (1973: 68) claims that "whimperative orders, requests, suggestions, etc., have the syntactic properties and intonation of corresponding imperative forms. Hints have the syntax and intonation of questions, or statements if they are in statement form". Unfortunately, these claims are vitiated by extremely dubious statements about the intonation patterns associated with the various forms. According to Green (1973: 62), requests "are characterised by a level or only slightly falling intonation". The examples given make it clear that Green is talking here about imperative-form requests. However, she also claims that "whimperative requests have the same intonation as imperative-form requests", and again that "whimperatives do not have the same intonation as questions, but rather

have approximately the same intonation as the corresponding imperative forms. The speaker's intention, therefore, will almost always be obvious to the hearer from the intonation." (Green 1973: 67). The present writer (admittedly a speaker of British rather than American English) finds this intonational analysis quite unacceptable. Green is claiming that whimperatives have level or slightly falling intonation: in British English, at least, the unmarked intonation pattern for whimperatives, as for straight questions, is rising (though see §3.5.2 for a disagreement on the kind of rise).

Lee (1974) offers evidence for the separation of 'illocutionary' and 'perlocutionary' types of indirect speech act, from co-occurrence behaviour with *please*, for which we have already given an explanation in §3.3.1.3. She also points out that the two kinds of act are reported in different ways. Thus 3.64 is a fair report of 3.65, but not of 3.66.

3.64 (= Lee's 57a) She requested that we eat.

3.65 (= Lee's 55) Could we eat now?

3.66 (= Lee's 59) I'm hungry.

This need not, however, mean (and Lee presumably does not intend it to mean) that the distinction between 'illocutionary' and 'perlocutionary' types is isomorphic with that between incorporation of requestiveness in the semantics in the former case, and its exclusion in the latter. The acceptability of 3.64 as a report of 3.65, but not of 3.66, arises from the fact that the propositional material for the sentential complement of *request* is available in 3.65, but must be deduced from 3.66. In this connection, note that 3.64 is a fair report of 3.67:

3.67 I'd like us to eat now.

Note also that even if 3.65 is intended as a request, it can also be fairly reported using *ask if/whether*, the form used to report questions:

3.68 She asked if/whether we could eat.

Both Lee and Green also propose a further kind of test for distinguishing types of indirect speech act, which depends on the appropriateness of particular types of response, and is thus related to the discourse value of the acts concerned. This will be discussed in Chapter 4.

In concluding this rather lengthy discussion of proposals of the Sadock type, we may say that the separation of indirect speech acts into a type where the force is truly semantic, and a type where the intended force is a matter of deduction, rests in part on dubious data, and that even where the data can be accepted, the arguments can be countered, and an alternative explanation in terms of a 'surface-meaning' model given. Downes' observations on co-occurrence with adverbs of possibility indeed suggest that Sadock's view is untenable.

3.4 Summary of conclusions from (non-systemic) work on speech acts

In the preceding discussion, we have reached the conclusion that both the 'use-meaning' and Sadock's 'meaning-meaning' hypotheses are seriously flawed, and so should be rejected. On the other hand, Sadock's criticisms of the 'surface-meaning' approach can all be answered. It therefore seems that the 'surface-meaning' view is basically correct: it is certainly very attractive, since under this approach all discrepancies between communicative function and sentence meaning are accounted for in the same way.

Before we finally accept the 'surface-meaning' view, however, we must consider the (rather smaller) contribution of systemic linguists to this area.

3.5 Work on speech acts by systemic linguists

Three systemic linguists (Halliday, Fawcett and Hudson) have written on the area of speech acts. Interestingly, each takes a different position within Sadock's taxonomy of 'surface-meaning', 'use-meaning' and 'meaning-meaning' approaches.

3.5.1 Halliday on speech acts

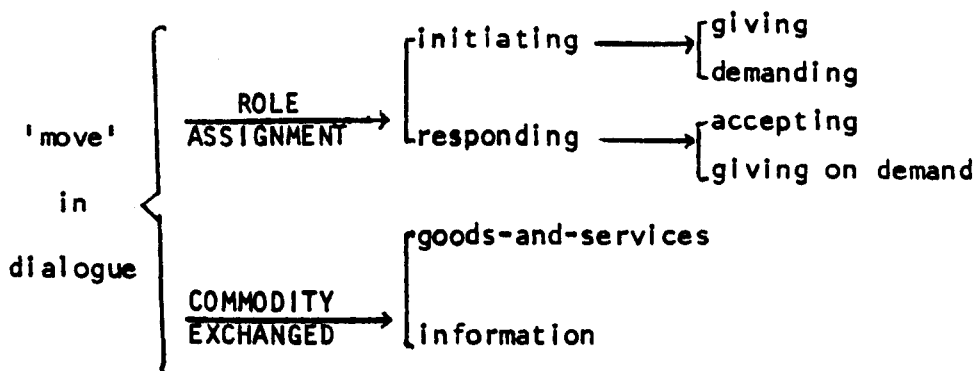
It must first be said that the general approach of the speech act philosophers, with its concentration on individual utterances, is contrary to Halliday's way of thinking, which is concerned with the interactional importance of acts of speech, and is thus close, in its general orientation, to the discourse analysis approach discussed in Chapter 4. Halliday has, however, incorporated speech act labels such as statement, question and command into his networks; furthermore, he has not produced a detailed theory of discourse structure. It therefore seems appropriate to discuss his work at this point.

In a fairly early paper (Halliday 1971a/1973a), Halliday treats the categories of statement, question and command as (socio)semantic, claiming that "categories like these occupy an intermediate level of 'meaning potential' which links behavioural categories to grammatical ones" (p. 57). This, as we observed in §2.6, is an area where meaning choices are not tied to particular social contexts and settings, but are created by the communication situation itself. Otherwise, "the relationship

between, say, 'question' in semantics and 'interrogative' in grammar is not really different from that between a behavioural-semantic category such as 'threat' and the categories by which it is realised grammatically" (p. 56). This certainly points to what in Sadock's terms would be a 'use-meaning' approach, and is subject to the criticisms of that approach discussed earlier.

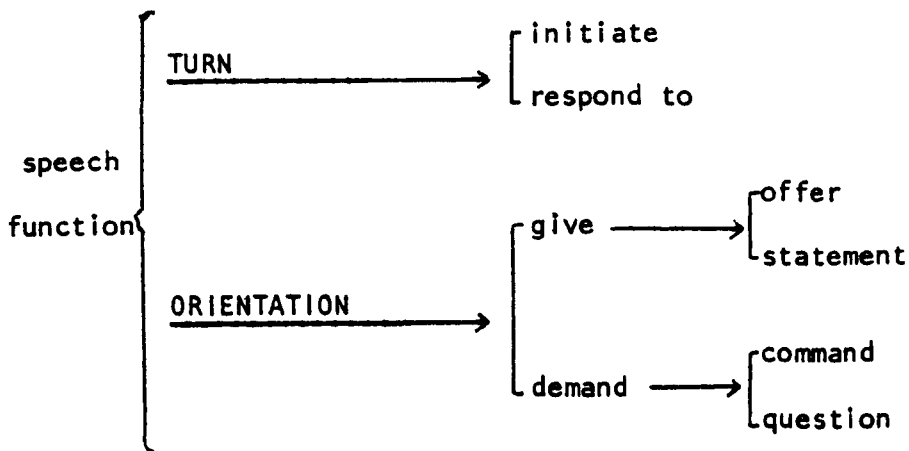
A rather more detailed discussion of speech roles and functions can be found in a more recent paper (Halliday 1977a), in which he aims "to represent the elementary relations of dialogue in a hierarchy of three networks, (a) social-contextual, (b) semantic and (c) grammatical, showing how each can be interpreted as a re-coding of the one above" (p. 10).

The 'social-contextual' level is seen as 'above' the linguistic code, rather than part of it. At this level, dialogue is considered as an exchange process, the least delicate options being those in the following network (p. 12):

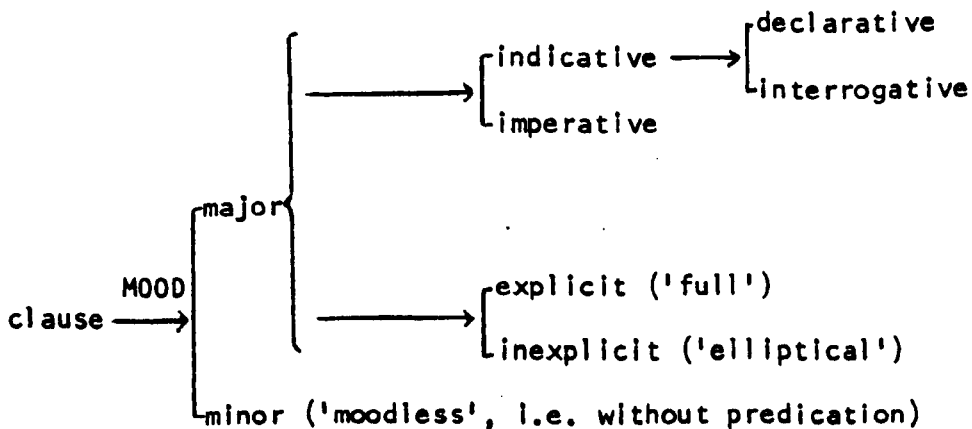


These options are re-coded at the semantic level, at which "are introduced concepts of the kind traditionally referred to as 'speech functions': statement, question and the like" (p. 13).

The relevant network of options is as follows (p. 13):



The semantic options are in turn re-coded as 'mood' options in the lexicogrammar (p. 15):



In discussing the realisational relationships between options at successive levels, Halliday makes use of the concept of 'congruence', which appears to be simply a kind of unmarkedness, since Halliday states that "a 'congruent' realisation is that one which can be regarded as typical - which will be selected in the absence of any good reason for selecting another one" (p. 13). Lists of congruent realisations are presented: for example, the feature complex [initiating, demanding, goods-and-services] at the social contextual level is congruently realised

as [command] at the semantic level, the congruent realisation of this feature at the lexicogrammatical level being [imperative]; similarly, [initiating, demanding, information] is in congruent relationship with [question] and the latter with the lexicogrammatical feature [interrogative]. Halliday recognises that the congruent patterns are by no means obligatory, and may indeed not be the most frequent, but feels, for example, that "however rarely we may actually use an imperative in giving orders, we have a feeling that it is in some sense the unmarked way of doing so" (p. 14). He recognises the need, not only to extend the networks in delicacy, but also to show non-congruent patterns of relationship.

Typically, Halliday's account is insightful but sketchy, revealing a number of problems on closer examination. Certain of these problems are concerned with the 'level of social context'. It is not clear exactly what this level is meant to be, or whether it is the same as any other level in Halliday's previous work. Halliday does not make clear how a 'move' in dialogue is to be defined, or whether there are other units of interaction, and if so, what their relationships are. Furthermore, he admits, regarding the distinction between 'information' and 'goods-and-services', that "there will be many tokens - actual speech events - of an intermediate or a complex kind" (p. 11). Practical experience in attempting to assign actual examples of interaction to these categories (Montgomery 1979) has brought out very clearly the inadequacy of Halliday's formulation.

There are problems also at Halliday's semantic level. He does not say how the 'speech functions' of command, question,

statement and offer are to be defined or recognised, and this leads to a lack of clarity about exactly what should count as belonging to any one of these categories. Certain semantic types such as exclamation, which do not fit in any obvious way into Halliday's neat scheme, are simply ignored. Further, it is not at all clear why the 'initiate/respond to' system is to be regarded as part of the semantics: the label 'turn' for the system, and the apparently one-to-one relationship between these terms and the least delicate terms of the 'role assignment' network at the social contextual level, suggest that this distinction in fact has no place in the semantics.

Nor is the lexicogrammar without its difficulties. Halliday's network allows the generation of clauses with the features [imperative, inexplicit]: it is, however, by no means obvious what such a clause would look like, or how it might differ from a minor clause.

A further set of problems, of particular relevance to our present work, is concerned with the area of 'congruence'. Because Halliday does not state how the semantic speech functions are to be defined, we cannot tell whether requests, for example, would be regarded as sub-classes of command, rather than as non-congruent realisations of the features [initiating, demanding, goods-and-services], though this position would certainly be in agreement with the spirit of the proposals. If this is so, whimperatives would presumably be treated as potentially ambiguous as between a request and a question meaning, a position which we argued against in §3.3.1.3. A further aspect of this difficulty is that Halliday makes no reference to other types of meaning (e.g. the 'modulation' meanings of

the modals) relevant to the specification of non-congruent realisations of the features [initiating, demanding, goods-and-services]. It is especially regrettable that Halliday, although realising that non-congruent realisations are particularly common and important for directives, does not go on to recognise that there are (as we shall show later) systematic relationships between interlevel mappings and social contextual parameters in this area.

3.5.2 Fawcett on speech acts

Fawcett (1980) regards illocutionary force as a semantic property of sentences, although his use of the term is rather more restricted than Austin's: indeed, Fawcett takes a position very similar to Sadock's 'meaning-meaning' approach, in accounting for the communicative function of some, but not all, indirect speech acts within the semantics.

Fawcett (1980: 101-2) sees a role for deduction rules of a Gricean kind in the interpretation of opaque indirect speech acts such as 3.69 (Fawcett's example), as used to get a child to go to bed.

3.69 It's after your bedtime.

Like Sadock, however, he argues that certain kinds of indirectness in directives should be built into the semantics. In particular, directly used modalised interrogatives (i.e. Sadock's 'whimperatives') are treated as semantic requests. Fawcett (pp. 111-2) gives four reasons for rejecting the analysis of such requests as 'polarity information seekers' (i.e. polar questions) plus an intended deduction of directiveness.

Firstly, Fawcett argues that systematic semantic differences can be shown between requests such as 3.70, and formally identical 'information seekers', whether past (as in 3.71) or hypothetical (as in 3.72).

3.70 Could you read it.

3.71 Could you read it (when you finally got it)?

3.72 Could you read it (if you were asked to)?

Fawcett is surely right to claim that 3.70 and 3.71 differ semantically: *could* in 3.71 must bear some semantic feature such as [past time], while in 3.70 it does not, in the directive interpretation. The difference between 3.70 and 3.72, however, is less clear: both have 'hypothetical' meaning for *could*, and, as we saw in connection with Sadock's similar argument in §3.3.3, it has been suggested that even examples such as 3.70 have an implicit condition. Furthermore, Fawcett's own statement of the semantic difference here, namely that in 3.70 the addressee is actually being asked to read it, while in 3.72 he is not, appeals to the purpose for which the speaker utters the sentence, a criterion which Fawcett earlier eschews, preferring to give an account which is 'patently based on criteria that are linguistic rather than on the notion of the 'purpose' served by the sentence' (p. 106).

Secondly, Fawcett claims that the intonation pattern typically used for polarity information seekers, the high rise, Halliday's Tone 2 (see Halliday 1970c) differs from that normally used for a request, which, according to Fawcett, is the low rise (Tone 3). The present writer finds this claim extremely dubious. Clearly, precise experimental data would help to resolve this issue, though Fawcett provides his own rather

unsatisfactory escape clause, namely that "there are undoubtedly occasions when the 'emic' distinction between Tones 2 and 3 is lost in the 'etic' fuzziness of actual usage" (p. 111). His position is made even less credible by the observation that "very many polarity information seekers are uttered with a tone that is phonetically closer to Tone 3 than Tone 2, presumably following the principle of economy of effort" (p. 111, fn.).

Fawcett's third argument is that directives do not have truth values, whereas "it is precisely the purpose of a polarity seeker to discover the truth value of the referent situation it refers to" (p. 111). It should be noted that despite his earlier claims, Fawcett again appeals here to the notion of purpose. Furthermore, the argument itself is empty: Fawcett has not produced a shred of evidence here against the view that the directive interpretation is deduced from a question about truth value. Fawcett also claims that "items such as *possibly* in *Could you possibly read it* do not realise 'modality' meanings, but are yet another type of 'softener'" (p. 111). We dealt with this kind of argument in §3.3.3, where it was pointed out that a 'surface-meaning' analysis does not need to postulate multiple meanings for adverbs such as *possibly*, and that such an account is to be preferred, on the grounds of generalisation and economy, to one which multiplies semantic categories in an unmotivated way.

Fawcett's fourth and final argument is that if the addressee replies *No* to a request such as 3.70, the expectations of the speaker are felt to be upset, whereas this is not the case for a polarity seeker. Fawcett's comment that in the former case the addressee has "sought to escape the task set through

making a 'play on words'" (p. 112) again suggests that he is invoking the notion of the purpose for which the sentence is uttered, against his own recommendations. What Fawcett is really appealing to here is the relationship between successive acts within a discourse, although he claims that his illocutionary force network "is part of a 'sentence grammar' rather than any possible 'discourse grammar'" (p. 105, fn.). The data under discussion can be accounted for satisfactorily within a model which does include a level of discourse function, as we shall see in Chapter 4.

We find, then, that Fawcett's arguments for semantic status for the requestiveness of whimperatives are, like Sadock's, unconvincing. Moreover, a close examination of these arguments reveals that despite his rejection of an approach based on the purpose for which a sentence is uttered, or on the discourse function of utterances, Fawcett needs to refer to, or at least imply, these concepts in order to justify distinguishing between requests and formally similar polarity seekers. We too shall need to explore these ideas further in Chapter 4.

3.5.3 Hudson on speech acts

Hudson's (1975) position is that illocutionary forces are not themselves to be accounted for as aspects of the syntax or semantics of sentences, but that the range of possible forces of an utterance can be worked out by the hearer from certain inherent semantic properties of the sentence uttered, together with a knowledge of Gricean conversational rules, of the speaker, the preceding discourse and other relevant situational factors. The semantic 'force markers' he isolates are related to syntac-

tic mood, though not in a one-to-one fashion. Hudson's approach is thus of the 'surface-meaning' type in Sadock's classification.

Hudson's first objection to the treatment of illocutionary force within the grammar is related to the context-dependence of illocutionary force. Hudson points out that "the same sentence uttered on different occasions can have an almost unlimited range of IFs [illocutionary forces]" (1975: 4). We cannot, therefore, work out the illocutionary force of a sentence merely from the form of the sentence uttered, but need contextual information in order to do so.

A second objection (Hudson 1975: 3) is that we do not know how many illocutionary forces there are (Austin suggests $10^3 - 10^4$), and there seems to be no reliable way of finding out. This argument is somewhat weakened if we observe that precisely the same kind of problem faces the student of the lexicon: it is by no means obvious how many lexical items there are in a language at any one point in its history, nor is it entirely clear by what means lexical items should be classified. Nevertheless, it seems fair to say that there is indeed no obvious way of saying whether a particular force should be regarded as separate from other related forces (for instance, whether commenting and remarking are the same or different illocutionary acts), with the result that the list of forces cannot be limited in a principled way.

Hudson (1975: 3) also points out that although many sentences can have a variety of illocutionary forces, different sentences need different contextual conditions in order to operate with a particular force. It would thus be mistaken to

conclude that illocutionary forces were in no way related to the linguistic properties of sentences. A similar point has been made by other linguists, as we saw in §3.2.

Hudson goes on to characterise the permanent, context-independent properties of sentences which are relevant to syntactic mood distinctions, and contribute to the determination of illocutionary forces. He sees these properties as concerned with the speaker's beliefs and attitudes towards the propositional content, that is as 'sincerity conditions' of a Searlian kind. For example, whenever a speaker utters a polar interrogative, or a declarative sentence, the hearer may infer that if the sentence is being used sincerely and 'normally' in relation to Gricean conversational rules, then the speaker holds certain beliefs. In the case of a declarative, uttered in such normal conditions, the hearer would infer that the speaker held the proposition to be true.

Hudson then demonstrates that the sincerity conditions attaching to a sentence cannot be associated with its syntactic structure, but must form part of the semantic representation. The form of his argument is as follows. If two sentences share the same sincerity conditions (or conditions whose only differences can be predicted from other factors) they should share the same representation of these conditions at some level. If it can be shown that two such sentences share no structural similarities at the syntactic level, then the sincerity conditions cannot be associated with this level, but must form part of a representation at some other level, presumably semantic.

The argument is focused on sentences such as the following:

3.73 (= Hudson's 10a) What a pretty dress that is!

3.74 (= Hudson's 10b) Isn't that a pretty dress?

Such sentences show a number of syntactic differences. 3.73 but not 3.74 allows a tag, and this can be explained if we assume that 3.74 is an interrogative, since interrogatives cannot take tags in most dialects of English. This explanation is supported by further syntactic differences between the two sentences: 3.74 shows inversion, while 3.73 does not; the 3.73 type allows *what* as a determiner but cannot be introduced by *who*, *which*, *when*, *where*, *why*, and so on, while the opposite is true of 3.74 (although both can contain *how*). Further syntactic differences include: the possibility of the *what* type after verbs of saying, but the impossibility of forming an embedded question from 3.74 using *whether*; the fact that *n't* is obligatory in the 3.74 type in the sense that the positive form is not a positive equivalent of 3.74, while the *what* type cannot be negative; the fact that the *what* type, but not the *isn't* type, allows modification of the adjective *pretty* by adverbs such as *very*, *extremely*. There are thus no grounds for bringing the two sentences together at the syntactic level: indeed, they appear to behave quite differently.

The two sentences do, however, share the same sincerity condition, which is that the speaker must be impressed by the degree of prettiness; or, more generally, the two types of sentence fit a pattern in which "the underlying proposition must identify a point on some scale of comparison, and the speaker must feel impressed by the position of this point" (Hudson 1975: 9). Propositions which do not meet this criterion cannot be taken as exclamations in this way. Hudson points out that the restriction must be semantic, not syntactic, since

there is no syntactic class of item which must realise the degree meaning: some kinds of adjective, adverb, noun and even verb, can express this. Hudson concludes that the sincerity condition must be associated with the semantic representation, and proposes, for the above case, a 'force marker' EXCLAMATION, common to the meaning of the two sentence types. He points out that this set of arguments can be taken as evidence for the separateness of syntax and semantics (see discussion in §2.5), since if the two levels are not distinguished there will be no way of discriminating between mood categories and force markers.

Hudson goes on to show that more than one force marker may be associated simultaneously with the same sentence. He points out that there are certain contexts in which 3.73, but not 3.74, would be appropriate, namely those in which it would be odd to expect the hearer to agree (for instance, if the hearer were wearing the dress in question). Exactly the same is true of the following pair:

3.75 (= Hudson's 19a) What a nuisance you are!

3.76 (= Hudson's 19b) Aren't you a nuisance?

3.76 is odd precisely because it implies that the hearer is expected to agree. Hudson attributes this to the fact that 3.74 and 3.76 are both polar interrogatives. He proposes a sincerity condition for polar interrogatives, namely that "the speaker believes the hearer knows, at least as reliably as the speaker does, whether the proposition is true or false" (Hudson 1975: 11). In the case of the type of interrogative sentence found in 3.74 and 3.76, though not in all uses of this form, the speaker also knows the answer, and

the point of using the interrogative rather than the declarative form is to show that he expects the hearer to know it too, and thus to be in agreement. Thus, although 3.74 and 3.76 are both semantically EXCLAMATIONS, they are also QUESTIONS, whereas 3.73 and 3.75 are simply EXCLAMATIONS.

The rest of Hudson's paper is concerned with work on polar questions, tags and to some extent statements, which is discussed and amplified in Chapter 7. At this point, we are concerned primarily with the model proposed by Hudson, and there is no doubt that he presents extremely persuasive arguments for a model in which semantic force markers are seen as distinct, on the one hand from syntactic mood categories with which they are a non-one-to-one correspondence, and on the other hand from the illocutionary forces of utterances, which are only partially determined by the semantic forces of the sentences uttered.

It is interesting, and encouraging, to note that a very similar position is reached by Davies (1979), working within a semantic role framework derived from symbolic interactionist theory. Davies distinguishes between the 'literal mood meaning' (LMM) of a construction and the 'significance' of the construction as used in particular types of context. LMM is seen as context-independent, and "attaches to a construction type irrespective of particular circumstances (including those of the speaker's actual intentions) on any given occasion of its use. It is a semantic specification which a construction type has, *per se*" (Davies 1979: 38-9). LMMs are specified in terms of the occupancy and combinations of primary and secondary roles: the primary roles are those of Speaker, Addressee

and Third Party; the secondary roles are those of Teller, Knower, Decider and Performer. Different orders of 'significance' are recognised: categories of 'first order significance' (FOS) include question, statement, command and permission, among others, and are those which are carried by a limited range of construction types, in contrast to categories such as warning, which can be conveyed by virtually any construction type, and belong to higher orders of significance. FOS is seen as derived from the LMM and features of the context of utterance; higher orders of significance can then be derived from FOS plus further contextual features.

3.6 Concluding remarks

In this chapter, we have sought an answer to the question of whether the whole of the potential communicative function of a sentence (e.g. the potential directiveness of a sentence which can be used to get someone to do something) can and should be accounted for within the semantic and syntactic representation of the sentence. This problem is brought into especially sharp focus in the area of 'indirect speech acts'.

We have seen that there are convincing arguments against the view that the semantic specification of an indirect speech act contains a marker of the actual intended force of the sentence as uttered, i.e. against the approach taken by Heringer (1972), and also in the rather different account by Halliday (1977a) within a systemic framework.

The approach taken by Sadock (1974) and Fawcett (1980), namely that the intended force of certain indirect speech acts (e.g. whimperative modalised directives) is to be regarded as

part of the semantics, while that of other types is not, is also open to serious criticism.

We are left then with the 'surface-meaning' approach, formalised initially by Gordon & Lakoff (1971), in which only the literal meaning is considered as part of the semantics. Sadock has offered arguments against this position, but each of these can be countered. Furthermore, the 'surface-meaning' view is especially attractive in that it accounts for all discrepancies between sentence meaning and communicative function in the same way, viz. in terms of Gricean conversational rules which take into account the context of utterance.

The 'surface-meaning' view, whose basic correctness we have accepted, is espoused by Hudson (1975), who shows firstly that the illocutionary forces of sentences are not part of the semantics, and secondly that there exist context-independent properties of sentences which restrict the possible range of illocutionary forces a sentence can have when uttered. These properties are shown to be semantic rather than syntactic, but are correlated, in a non-one-to-one fashion, with syntactic mood categories.

We thus emerge with a set of semantic forces (to be discussed in detail, and amplified, in Chapter 7), which can be mapped on to syntactic mood, and which can serve, together with information about context, as a basis for interpretation of the likely communicative intention of the speaker, via rules of a Gricean kind.

The answer to the question we have been trying to answer is, therefore, that the whole of the communicative potential of a sentence is not to be accounted for within the semantic

representation of the sentence, but that this representation will contain markers of only those semantic properties which correlate in specifiable ways with surface mood. The question which now arises is whether we can account, within linguistics, for those aspects of communicative function which lie outside or 'above' the semantics, and if we can, how this should be done. We have already said that rules of a Gricean nature will be involved in working out interpretations of sentences as uttered in context. We must now also ask whether the linguistic acts of which connected discourse is composed themselves show any patterning which can be described in terms analogous to those used for the 'lower' levels of semantics, syntax and phonology. It is to this question that we turn in Chapter 4.

4: BEYOND THE SEMANTICS

4.1 Introduction

In Chapter 3 we argued that only those aspects of communicative function which are relatable to surface syntax should be present in the semantic representation of sentences. This means that the directiveness of indirect directives, including the modalised sentences which are our focus of interest here, will not be reflected directly in the semantic specification of these sentences, but will be a matter of deductive inference (which may, as we have seen, be partially short-circuited).

We must now attempt to answer the question of whether there is any linguistic level beyond, or 'above', the semantics, at which the potential similarity between syntactically and semantically differing sentences, and also the functional diversity of sentences with the same syntactic and semantic properties, can be recognised. Rephrasing this more specifically in terms of the area of directive function, we must ask whether there is any kind of linguistic patterning, similar to those recognised at other levels, which will allow us to recognise that imperative-form sentences, modalised and non-modalised questions and statements, can all act as directives, and that a given sentence (e.g. a modalised question) can have more than one function (e.g. in this case straight question or indirect directive). In other words, is there evidence for a level at which we can postulate functional features such as [directive], and perhaps more delicate features such as [order], [request], and [suggestion]?

4.2 Two approaches: speech act theory and discourse analysis

It is, at first, tempting simply to set up a level of speech act function on the basis of Searle's (1976) revision of Austin's (1962) classification of illocutions. As we saw in §3.2, Searle believes that 'illocutionary point', the point or purpose for which the act is performed, is the most important, though not the sole, criterion for classification. Classes of speech act are thus defined primarily in terms of what the speaker is attempting to do by means of the utterance of a particular sentence. This classification thus relies crucially on the notion of intention, which is itself an unobservable entity. We have seen that the communicative intention of the speaker may be more or less transparently marked in the semantic and syntactic structures of the sentence used to convey that intention; however, even in the case of the most transparent force-indicating device, viz. the use of performative verbs, we can, on Searle's own admission, convey illocutionary forces other than those named by the performative verb:

Suppose I say to a lazy student, "If you don't hand in your paper on time I promise I will give you a fail grade in the course". Is this utterance a promise? I am inclined to think not; we would more naturally describe it as a warning or possibly even a threat. (Searle 1969: 58)

Hard evidence for the speaker's communicative intention is not, then, to be sought merely in the form of the sentence uttered. We can, however, obtain evidence for hearers' interpretations of speakers' utterances, and for the extent to which these interpretations mirror the speaker's intentions. This evidence is available in the hearer's responses (which may be linguistic acts, surrogates such as nods, or other non-

verbal actions) to a speaker's utterances, and in the possible responses of the speaker to these responses, in terms of correcting misapprehensions in the original interpretation, or accepting that interpretation and building further discourse on to it. Consider the following piece of (hypothetical) dialogue:

- 4.1 A. Is that your coat on the chair over there?
B. Oh, sorry, I'll hang it up.
A. No, it's OK, I was just wondering if it was yours, 'cos mine's very similar and I think I left it around here somewhere.

Here, B interprets A's question as an indirect request to hang up the coat. A really intended this remark as a straight question, and corrects B's misapprehension by explaining this. If A had not responded in this way, we could have assumed that B's interpretation was not inconsistent with A's motive in asking the question.

Speech act theorists have not, in general, looked for this kind of evidence, but have concentrated on the analysis of conditions for the felicitous utterance of sentences in isolation (exceptions to this, such as are seen in the work of Green (1973) and Lee (1974), will be discussed later). This has the important consequence that speech act theory makes no predictions about the ways in which speech acts of various kinds may fit together to form larger units. This is the basis for criticism of speech act theory by those whose approach has come to be known as 'discourse analysis'. Thus Coulthard (1975: 75) writes:

Austin's basic concern was not with discourse structure but simply with the isolated act, and therefore he does not discuss whether the acts are structurally as well as

meaningfully distinct - that is, whether there are unique restrictions on what can follow or precede 'marking' to distinguish it from 'telling'.

Discourse analysts themselves are concerned with precisely this kind of structural patterning. The following quotations indicate clearly the basic preoccupations of this approach:

... the level of language function in which we are centrally interested is neither the universal functions of language, nor the detailed function of surface formal ordering within the sentence. It is rather the level of the function of a particular utterance, in a particular social situation and at a particular place in a sequence, as a specific contribution to a developing discourse. (Sinclair & Coulthard 1975: 13)

The fundamental problem of discourse analysis is to show how one utterance follows another in a rational, rule-governed manner - in other words, how we understand coherent discourse. (Labov 1970/1972a: 252)¹

Discourse analysis thus offers the possibility of defining communicative function (including the directive function in which we are especially interested) within a framework which accounts for supra-sentential patterning in terms of syntagmatic and paradigmatic relations analogous to those already proposed for other levels.

Although at least one discourse analyst does acknowledge a debt to speech act theory (see Coulthard 1977: 27), proponents of the discourse approach have stressed the differences between the two ways of looking at communicative function (see e.g. Sinclair & Coulthard 1975: 14). They are indeed different, and discourse analysis certainly does offer a framework which meshes better with the categories already proposed for

¹ Page references to this article are to the later, expanded version published in 1972.

patterning at other levels, and which relies on observable features of text rather than on unobservable intentions. It will be argued here, however, that links between the two approaches are closer than some discourse analysts would suggest. When a speaker produces an utterance, he produces it as a particular speech act (or acts), and also as a specific contribution to the structure of discourse. We shall see later that speech acts with the same illocutionary properties can have different specific discourse functions, and that conversely the range of possible discourse functions is determined partly by the nature of the speech act, as well as by the position of the utterance within discourse structure. The two aspects of communicative function come together in the interpretation of utterances, involving the deduction of both the more general speech act function and the more specific discourse function of what a speaker says.

In what follows, we shall first discuss proposals for the analysis of discourse structures. We shall then discuss in more detail the relationship between discourse categories and illocutionary categories. This will lead us on to a consideration of interpretation devices. Finally we shall examine more specifically the analysis of directive discourse function in terms of the model.

4.3 Discourse structures

4.3.1 Adjacency pairs, sequences and conditional relevance

A number of analysts have noted the existence, in two- or multi-party discourse, of 'adjacency pairs', in which there is a relation of mutual predictiveness between a 'first pair-

part' by one speaker and a 'second pair-part' by another. Schegloff (1968/1972a), building on ideas put forward in unpublished lectures by Sacks, develops the concept of the 'conditional relevance' of one utterance upon another. This idea was formulated in order to answer two important questions about the nature of discourse: how is it that we can identify a 'sequence' relation between two items, rather than simply a fortuitous juxtaposition of those items; and how is it that we can notice, and act on, the 'absence' of an expected item in discourse? By the conditional relevance of one item upon another, Schegloff means that "given the first, the second is expectable; upon its occurrence it can be said to be a second item to the first; upon its non-occurrence it can be seen to be officially absent - all this provided by the occurrence of the first item." (Schegloff 1968/1972a: 364¹).

Schegloff develops this concept in relation to Summons-Answer sequences, studied in a corpus of recorded telephone conversations. The ringing of a telephone, like a tap on the shoulder, a vocative such as *John!*, or an item such as *Hello* or *Excuse me*, acts as a summons. An answer is conditionally relevant upon the occurrence of such a summons, as shown by the fact that if no answer occurs, its absence is noted, and the summoner can then repeat the summons. Furthermore, the summoner need not wait indefinitely for an answer: the answer must be 'next to' the summons, and in this way the Summons-Answer sequence differs from the Question-Answer sequence, discussed in more detail in Schegloff (1972b).

¹ Page references are given to the reprinted, 1972, article.

The Question-Answer sequence again involves conditional relevance: indeed, the placement of an answer in relation to the question may be crucial in distinguishing an answer from a straight assertion. However, it is not always the case that the question is repeated if talk formulated as an answer fails to follow immediately. On the basis of (invented) data such as the following, and also an examination of real conversational data, Schegloff proposes the idea of an 'insertion sequence' coming between a question and the final answer:

- 4.2 A. Are you coming tonight? Q base
 B. Can I bring a guest? Q insertion
 A. Sure. A insertion
 B. I'll be there. A base

(Schegloff 1972b: 78)

Multiple embeddings are possible, though rather rare in actual conversation. Schegloff argues that the inserted material acts as a 'pre-sequence' for the activity performed in the answer proper. Such pre-sequences show an orientation to, and an understanding of, what is conditionally relevant at that point in the discourse, and so do not constitute grounds for a repetition of the original question. A further type of interruption in the flow of communicative activity is discussed by Jefferson (1972), who describes how 'side sequences' can be initiated to deal with misunderstandings and other conversational troubles, and how a return to the ongoing main sequence can be negotiated.

The production of first pair-parts, such as a summons or question, is an important way of controlling the flow of interaction, since such utterances have the effect of selecting the

next speaker and obliging him either to produce a second pair-part or to risk the consequences of frustrating discourse expectations. This aspect of discourse is discussed in detail by Sacks, Schegloff & Jefferson (1974/1978), who propose a model for the organisation of turn-taking in conversation. Their model consists of two components and a set of rules. The 'turn-constructional' component is concerned with the speaker's selection of units (sentence, clause, phrase, lexical item) for the construction of a turn. The speaker is initially entitled to one such unit, the completion of the unit acting as an 'initial transition-relevance place', where transfer of speaker-ship can, but need not, occur. The 'allocational' component is concerned with the techniques for the allocation of the next turn to a given speaker. The current speaker may select the next in various ways (including the production of a first pair-part, as we saw above), or the next turn may be allocated by self-selection. The set of rules attached to these components states that at the initial transition-relevance place of the first unit, if the turn so far has been constructed in such a way as to select the next speaker, that party has a right, and indeed an obligation, to take the next turn, no other speaker having such rights or obligations. If the turn so far is not so constructed, self-selection may, but need not, occur: if it does not, the current speaker may, but need not, continue to speak, and the rules then apply again at the next transition-relevance place. The authors demonstrate that this model can account for many of the properties of conversation, such as the recurrence of speaker change, the brevity of overlaps, the variation of turn order and size, and of the length and con-

tent of conversations, and so on.

One important point made by Sacks *et al.* is especially pertinent to our present concerns. They observe that by providing a second pair-part a participant in conversational interaction demonstrates understanding of other turns' talk, not only to other participants, but also to the linguist analysing a piece of conversational data. This is to say, it is by means of the co-operative interaction manifested in sequences that the analyst is able to obtain evidence for the labelling of a given utterance as, say, an informational question, a directive, a summons, or whatever. This brings us back to an earlier point, namely that discourse analysis gains over analyses of illocutionary point based on speaker intention, in that the structure of discourse can provide objective evidence of the consequences of hearers' interpretations of speakers' (subjective) intentions. If a speaker's utterance is misinterpreted to a serious degree, this will normally show up in the structure of the succeeding discourse, as Jefferson's (1972) 'misapprehension sequences' demonstrate.

The recognition of adjacency pairs, insertion sequences and the like was, then, an important initial step in the analysis of discourse structure. However, as Coulthard (1977: 91-2) has pointed out, the work of the ethno methodologists suffered from certain major drawbacks. It concentrated on selected portions of texts, and gave insufficiently explicit accounts of these. Furthermore, it limited itself to a consideration of pairs and sequences of pairs, with little concern for any higher units which might be isolable from discourse. The work of Sacks and Schegloff does contain ref-

erences to what are presumably higher units, such as 'topic' and 'conversation', but these are not defined, nor are their structural possibilities specified. Hierarchical relationships in discourse have been suggested by various authors: Hymes (1972) has proposed that 'speech acts' may form part of a larger unit, the 'event'; Goffman (1955) suggests that the 'moves' of individual participants are built up into larger 'interchanges'. However, the most comprehensive and successful attempt to formulate hierarchical discourse structures, which will allow the description of whole texts rather than just selected parts, is that of Sinclair & Coulthard (1975). This work is especially interesting in the context of the present study, since its theoretical basis has its roots in Halliday's 'Scale and Category' model (see §2.2). We shall summarise the structural aspects of Sinclair & Coulthard's model in the next section.

4.3.2 Sinclair & Coulthard's hierarchical model of discourse structure

Sinclair & Coulthard's (1975) work is largely an attempt to specify the discourse structures available in the limited social context of classroom interaction. Their central tenet is encapsulated in the claim (p. 34) that "the *discourse* value of an item depends on what linguistic items have preceded it, what are expected to follow and what do follow.". Discourse acts are thus defined primarily in terms of the predictions they set up within the structure of discourse. For instance, an 'elicitation' is an act which requires a linguistic response or a non-verbal surrogate such as a nod, while a 'directive' is an act whose function is to request a non-linguistic

response, and an 'informative' has as its function the passing on of ideas, facts, opinions and the like, and requires no response other than acknowledgment that the addressee is still listening.

Sinclair & Coulthard point out that there is no necessary one-to-one relationship between grammar and discourse, either functionally or structurally. Although there may be one unmarked grammatical realisation of a particular discourse category (e.g. imperative for directives) there are also other marked versions. Similarly, although there may be unmarked correlations between grammatical units and discourse units (e.g. a main clause, plus any subordinate clauses associated with it, tends to realise one discourse act) there are again many cases where this does not apply. This leads Sinclair & Coulthard to propose a level of discourse separate from that of grammar, although they do remark (p. 23) that if discourse acts can be proved to be simply consistent arrangements of clauses, then discourse will be an 'upward' extension of grammar.

Since their work is set within a broadly 'Scale and Category' framework, Sinclair & Coulthard propose a hierarchical organisation of the discourse level by rank. The lowest rank, that of act, is, as we have seen, said to "correspond most nearly to the grammatical unit *clause*" (p. 27), while the next rank of unit, the move "is concerned centrally with each discrete contribution to a discussion made by one speaker" (p. 123). The move is thus the minimal free unit of discourse. Moves combine to form larger units called exchanges, which in turn combine to form transactions. The largest unit is, in the most general

terms, the interaction, of which the unit lesson can be seen as a specific type appropriate to the teacher-pupil data which form the basis of Sinclair & Coulthard's analysis. At each rank (except possibly the highest) there are various classes of unit, each class having a particular range of structures, the elements of which are realised by certain classes of the unit next below on the rankscale. There are, in fact, 22 classes of act, realising elements of structure in 5 classes of move, which in turn realise structural elements in 2 classes of exchange. The authors also make tentative mention of 3 classes of transaction in classroom interaction.

As we have seen, Sinclair & Coulthard's work is based on a very specific type of social interaction, and the authors are understandably cautious about the extent to which generalisability can be claimed for their scheme. Work by Pearce (1973) on radio interviews and television discussions, and by Coulthard & Ashby (1973) on doctor-patient interviews, has shown that the units of move and exchange are still appropriate, although Stubbs (1973), in his work on committee talk, has suggested that it might be difficult to recognise a consistent structure for exchanges in such interactions. Particularly interesting for our present purposes, because of its greater generality, is a recent attempt by Burton (1978, 1980) to apply Sinclair & Coulthard's model to the analysis of conversation in modern dramatic texts. Burton recognises 18 classes of act, plus one which does not occur in her data, but could reasonably be expected to appear in conversational interaction. Of these 19 classes of act, no fewer than 16 are taken over, with minimal alteration, from Sinclair & Coulthard's account, suggesting that many of these discourse act classes

may be applicable to a wide range of interaction types. One major difference between Burton's account and that of Sinclair & Coulthard is that Burton's data contain instances of the frustration of discourse expectation where one participant challenges, rather than supports, a move made by another participant.

4.4 Discourse categories and illocutionary categories

Sinclair & Coulthard make it quite clear that there is not a one-to-one relation between the discourse classification of an utterance and what Searle would call its illocutionary point. For example, not all items whose function is to get the hearer to do something are to be classified as directives in discourse.

Particularly relevant here is the authors' discussion (p. 38) of the class of act which they label as 'clue'. An example of such an act is the following, appearing in one of their sample texts:

4.3 Look at the car.

This, they claim, is a clue, not a directive, because its function within its discourse context is not to cause the pupils simply to look at the car, but to do so in the light of a previous elicitation:

4.4 Can you think what it means?

In other words, since the attempt to get the pupils to do something is not an end in itself, but is subordinate to the main purpose of eliciting information, the utterance of 4.3 must be classified differently from the use of the same or a similar utterance as an attempt to get the pupils to do some-

requiring utterance.

A similar case is that of the act 'cue', which requires the pupil to raise his hand if he knows the answer to a question. Such acts are not directives, because their function is again subordinate to that of the head act, namely to get the answer to a question. An example given by Sinclair & Coulthard (pp. 38, 90) is:

4.7 Hands up (cue)
What's that? (elicitation)

Acts such as clues, starters and cues are recognisable by the analyst, and the hearer, as distinct from informatives, elicitation and directives because they have different syntagmatic relations with the surrounding discourse. Clues follow an elicitation or directive acting as the head of a move; starters precede, and direct attention towards, a head elicitation, directive, informative or check; cues precede an elicitation which is the head of a move. Informatives, elicitation and directives, however, are themselves the heads of moves, and bear the primary function of the move: they can stand as the sole constituent of a move, whereas the other three classes cannot.

We can thus interpret Sinclair & Coulthard as claiming that utterances with the same illocutionary properties can have several discourse functions. Although Sinclair & Coulthard themselves do not bring in the notion of illocution in this context, they do recognise the common properties of certain acts by postulating what they call 'situational' categories of statement, question and command (p. 29 ff.). The 'situational' classification of an utterance is made from the formal properties of the sentence, and the context of utter-

ance by means of the interpretation rules (see later discussion, §4.5), and only then can the item be allocated a discourse classification:

It is place in the structure of the discourse which finally determines which act a particular item is realizing, though classification can only be made of items already tagged with features from grammar and situation. (p. 29)

Situational categories are seen by Sinclair & Coulthard as a kind of half-way house between the grammar and discourse proper. On the one hand, there is a many-to-many relationship between situational categories and the formal categories of declarative, interrogative and imperative. As Sinclair & Coulthard (p. 29) point out, "the interrogative 'What are you laughing at?' is interpretable as a question or as a command to stop laughing". On the other hand, the situational categories are not identical to the discourse categories of informative, elicitation and directive, as is made clear in the following passage (p. 34):

While elicitation is always realized by questions, directives by commands, and informatives by statements, the relationship is not reciprocal: questions can realize many other acts and the expression 'rhetorical question' is a recognition of this fact. Statements, questions and commands are only informatives, elicitation and directives when they are initiating; an elicitation is an initiating question of which the function is to gain a verbal response from another speaker - questions occur at many other places in the discourse but then their function is different and this must be stressed. A question which is not intended to get a reply is realizing a different act from one which is; the speaker is using the question for a different purpose and we must recognize this in our description.

It seems quite clear that Sinclair & Coulthard's situational categories are in fact very closely related to the

illocutionary properties of the act concerned. Thus, for instance, both cues and directives, as defined in discourse terms, would be classified as 'directive' by Searle; both informatives and starters which could, in other discourse positions, have been informatives, are being used to state something; and so on. The situational (or, as we now see it, illocutionary) category to which an utterance belongs restricts the discourse functions which that utterance can have. For example, 'commands' can, according to Sinclair & Coulthard (pp. 40-44) act as directives, starters, prompts, clues, cues and asides, but not, for instance, as elicitations, checks or replies. On the other hand, 'questions' can function as elicitations, checks, replies and loops, as well as starters, clues, and asides.

There are two further points to note here. Firstly, although Sinclair & Coulthard's situational categories are, as we have seen, basically illocutionary, they are not in an exact one-to-one correspondence with Searle's illocutionary point classes, since for Searle questioning is a subclass of directive act, so that Sinclair & Coulthard's 'question' and 'command' would have the same illocutionary point. Rather, the situational categories correspond to those illocutionary acts which Lyons (1977: 737) claims are basic to all languages. In view of Searle's use of 'directive' to include questions, and our own use of this term as a specific class of discourse act, we shall adopt here the term 'mand' (borrowed by Lyons (1977: 745) from Skinner) to cover commands, requests, suggestions, pleas, and the like.

The second point to note is that there is overlap in the ranges of discourse functions which can be performed by utterances of given illocutionary types (e.g. as stated above, 'questions' and 'commands' can both act as starters, clues and asides). It is not, then, the case that illocutionary categories are simply less delicate classes of discourse item: indeed, as Sinclair & Coulthard's work shows, it is not the illocutionary categories themselves, but the specific discourse functions, which show, and can be recognised by, structural patterning, and so form a level of organisation parallel to the lower levels. The illocutionary categories are, in fact, best seen as intermediate stages in the interpretation of utterances as discourse items. It is to this that we now turn.

4.5 Interpretation

Sinclair & Coulthard (p. 29 ff.) present rules, for the classroom context, which take the grammatical form (mood, presence or absence of particular modal verbs) and aspects of the non-linguistic context (characteristics of schools and classrooms in general, the circumstances obtaining at a particular point in a lesson) as input, and produce interpretations, in terms of their 'situational' categories, as output. In our terms, then, Sinclair & Coulthard's rules link syntax and social context to the illocutionary properties of utterances.

The first rule (p. 32) states:

An interrogative clause is to be interpreted as a *command to do* if it fulfils all the following conditions:

- (i) it contains one of the modals *can, could, will, would* (and sometimes *going to*),
- (ii) if the subject of the clause is also the addressee;
- (iii) the predicate describes an action which is physically possible at the time of the utterance.

This means that in the classroom, provided that there is a piano in the room, 4.8 below is interpreted as a command, but 4.9 and 4.10 as questions (Sinclair & Coulthard's examples):

4.8 Can you play the piano, John?

4.9 Can John play the piano?

4.10 Can you swim a length, John?

The second rule (p. 32) is as follows:

Any declarative or interrogative is to be interpreted as a command to stop if it refers to an action or activity which is proscribed at the time of the utterance.

Thus, provided that laughing is a proscribed activity, Sinclair & Coulthard predict that 4.11 - 4.13 will be interpreted as commands to stop laughing: only if laughing is not forbidden will 4.13, for example, be taken as a straight question:

4.11 I can hear someone laughing.

4.12 Is someone laughing?

4.13 What are you laughing at?

The third rule (p. 33) states:

Any declarative or interrogative is to be interpreted as a command to do if it refers to an action or activity which teacher and pupil(s) know ought to have been performed or completed and hasn't been.

Thus 4.14 and 4.15 are taken as commands if the door ought to have been shut, and both teacher and pupils know that it has not been: only if the teacher does not know whether the door

has been shut can 4.15 be interpreted as a question:

4.14 The door is still open.

4.15 Did you shut the door?

One serious drawback to the Sinclair & Coulthard approach is particularly evident in the first rule quoted above. Because the authors attempt to relate the syntactic properties of sentences to the discourse function of utterances of those sentences, they fail to explain why the particular syntactic features they name are important in determining the interpretation of an utterance. Of particular relevance to the present study is the fact that no indication is given of why modal verbs should be important, or why the particular modals *can/could/will/would*, rather than any others, can signal directiveness. As was pointed out in Chapter 1, it is specifically the root ('modulation') meaning of the modals which is standardly involved in signalling directive function, rather than the epistemic ('modality') meaning. It follows that semantic, rather than syntactic, categories should be the linguistic input to the interpretation device. Discourse will thus be mapped on to syntax indirectly, via the semantics: only in this way can we do more than simply state correspondences.

Although the importance of the meanings of mood and modalisation is virtually ignored by Sinclair & Coulthard, some connection with the semantics of modalisation, in particular, can be seen in the interpretation rules proposed by Labov (1970/1972a, 1972b), and in more detail in Labov & Fanshel (1977). Ability, willingness and obligation, which are all root meanings expressible by modal verbs, are central to the 'rule of requests' proposed by these authors (Labov

& Fanshel 1977: 78):

If A addresses to B an imperative specifying an action X at a time T, and B believes that A believes that

- 1a X should be done (for a purpose Y) [*need for the action*]
- b B would not do X in the absence of the request [*need for the request*]
- 2 B has the *ability* to do X (with an instrument Z)
- 3 B has the *obligation* to do X or is willing to do it
- 4 A has the *right* to tell B to do X

then A is heard as making a valid request for action.

Unlike Sinclair & Coulthard, Labov & Fanshel (1977: 80) recognise the affinity between their own work and that of the speech act theorists, although, in common with Sinclair & Coulthard, they emphasise the need to examine utterances located within a discourse and embedded in a social context. The similarity between Labov & Fanshel's pre-conditions 1-4 and Searle's 'preparatory conditions' (see §3.2) for the performance of directive acts, is striking. Labov & Fanshel's conditions 1b and 2 are specifically mentioned by Searle as preparatory conditions for requesting, and the obligation part of condition 3, as well as condition 4, are covered by Searle's (1969: 66) statement that "*Order* and *command* have the additional preparatory rule that S must be in a position of authority over H". The willingness clause of Labov & Fanshel's condition 3 is not mentioned in Searle's rules, but is the substance of one of the 'intrinsic conditions' postulated by Heringer (1972) who, as we saw in §3.3.2, makes use of a basically Searlian approach in his analysis of indirect speech acts.

The similarities between the Labovian discourse approach and the speech act approach are brought out even more clearly by Labov & Fanshel's 'rule for indirect requests', which performs much of the work done by several of Heringer's intrinsic condition rules:

If A makes to B a Request for Information or an assertion to B about

- a. the existential status of an action X to be performed by B
- b. the consequences of performing an action X
- c. the time T, that an action X might be performed by B
- d. any of the preconditions for a valid request for X given in the Rule of Requests

and all other preconditions are in effect, then A is heard as making a valid request of B for the action X. (Labov & Fanshel 1977: 82)

Compare, for example, the part of the above rule making use of the existential status of the action X, with the following intrinsic condition stated by Heringer (1972: 34):

The performer of an indirect illocutionary act K believes that no acts involved in the performance of K are already performed.

combined with Heringer's (1972: 28) general condition

An illocutionary act K is performed by asserting that an intrinsic condition on K holds or by questioning whether an intrinsic condition on K which is a matter of belief only (not knowledge) holds.

As examples of the operation of these rules in indirect requests, Heringer gives the following:

4.16 (= Heringer's 3.36aa) Have(n't) you (already) closed the door?

4.17 (= Heringer's 3.36cc) You haven't yet closed the door.

Compare Labov & Fanshel's (1977: 83) examples:

4.18 Have you dusted yet?

4.19 You don't seem to have dusted this room yet.

Similarly, compare the Heringer (1972: 20) intrinsic condition on ability:

The performer of an illocutionary act K believes that the performers of the volitional acts involved in the carrying out of K are in fact able to perform those volitional acts.

with the invocation of part (d) of Labov & Fanshel's rule for indirect requests, combined with section 2 of the basic rule of requests (concerned with ability). Again, similar examples are given by Heringer and by Labov & Fanshel:

4.20 (= Heringer's 3.171) Can you help me?
You can help me.

4.21 Can you grab a dust rag and just dust around?
You have time enough to dust before you go.

Let us now summarise the current position in our assessment of Sinclair & Coulthard's and Labov & Fanshel's interpretation rules. The Labov approach gains over that of Sinclair & Coulthard in being based on meanings, rather than directly on forms, and thus being able to show that the presence of certain meanings, such as ability, willingness and obligation, is what can lead to an indirect directive interpretation, rather than merely the presence of the modal forms themselves, which can have (epistemic) meanings not standardly relevant to directive interpretations. Sinclair & Coulthard (p. 33) do, in fact, note an earlier version (Labov 1970/1972a) of Labov's rule for requests, but simply state that for them the pre-conditions relating to the need for action, the obligation of

the addressee to perform it, and the rights of the speaker, are part of the assumptions which can be made about the teaching situation. Since they do not investigate the pre-conditions further, they, unlike Labov, are unable to say why indirect requests take the forms they do take. Both Sinclair & Coulthard's and Labov's rules, however, have links with the speech act approach. These links are clearer in the Labov & Fanshel account, where there are strong parallels between their interpretation rules and Searlian conditions or Heringer's intrinsic conditions. Even the Sinclair & Coulthard rules, however, can be seen as producing speech act categories as output.

Although Labov & Fanshel's rules state, in effect, the correlation between meanings (modal, temporal, etc.) and illocutionary properties, they are still deficient in one respect: they do not tell us the general mechanisms which underlie such correlations. They do not tell us, for example, how a question about the ability of the addressee to perform an action comes to count as a request for him to perform that action. It would therefore seem that interpretive correlations of a Labovian kind need to be supplemented by a more general account of conversational implicature, and this, of course, is precisely what is provided by the work of Grice discussed in §3.3.1.1.

The interpretation relations discussed so far enable us to map meanings (and ultimately forms) on to the type of speech act the speaker was performing. However, as Sinclair & Coulthard's work has shown, an utterance belonging to a given 'situational' (in our terms, illocutionary) category can be used with a variety of specific discourse functions. It there-

fore still remains to be decided which of the particular discourse functions allowed by the given illocutionary type is to be allocated to the utterance concerned. This can be determined on the basis of the position of the utterance in the discourse structure. For instance, if an utterance which in speech act terms is a statement is the sole act in an opening move, then it must be taken as an informative at the discourse level, whereas if the utterance is followed by a question, it is to be interpreted as a starter, followed by an elicitation acting as head. Compare the following, from Sinclair & Coulthard's data (pp. 102, 84):

4.22 Those are very sharp indeed (informative, in move
with head only)

4.23 And the Egyptians also had a very special art of doing something to (starter)
people's bodies when they had died.
What was this called? (elicitation)

In conclusion, then, we envisage the rules for interpretation of utterances as involving the application of Gricean conversational rules to the literal meanings of the sentences used in those utterances, certain types of meaning being particularly important in the indirect conveying of particular types of illocution. For instance, Labov's interpretation rules and Heringer's intrinsic conditions emphasise the importance of modal meaning in the indirect conveying of requestive function, a relationship which we shall explore in detail in Chapter 9. The specific discourse function carried by the speech act can be deduced from the illocutionary properties, by consideration of the rules for discourse structure. Taken together, these relationships constitute the mapping relations between discourse acts and the semantic properties of the

sentences which realise these acts. These relations are, of course, viewed only as part of the linguistic system: it is not being claimed that the processing of utterances necessarily occurs in two discrete stages.

4.6 Directives in discourse

So far, we have discussed the discourse level, and its relationship to illocutionary phenomena, in rather general terms. We must now examine these matters in particular relation to the area of directive communicative function. There are three questions which demand an answer here. Firstly, we must decide at what rank(s) in the structural hierarchy of a Sinclair & Coulthard type of model directiveness is to be accounted for. Secondly, we must ask what are the relationships between these directive discourse categories and illocutionary 'mands'. Thirdly, we must discuss whether the more specific illocutionary categories of 'order', 'request', 'suggestion', and the like, are simply illocutionary, or whether there are corresponding categories definable in terms of discourse criteria.

For Sinclair & Coulthard (1975: 28), 'directive' is the label for a class of act, defined as: "an act the function of which is to request a non-linguistic response". A later reference to the directive as "an act that clearly requires some activity to satisfy its presuppositions" (p. 134) is made within the context of a discussion of classes of move, although Sinclair & Coulthard do not explicitly recognise a class of move reflecting the possible directive function of one speaker's turn: rather, directives are one of four subclasses of act

(the others being informative, elicitation and check) which can realise the head of an 'opening' move. However, a more delicate classification of opening moves into subclasses, including directing, is proposed by Coulthard elsewhere:

At secondary delicacy, Opening moves for instance are subdivided into Informing, Eliciting, Checking and Directing. (Coulthard 1975: 76)

This also fits in with Sinclair & Coulthard's account of the classification of exchanges: they posit two major classes of exchange, Boundary and Teaching, but then go on to recognise eleven subclasses of Teaching exchange, one of which is 'Teacher Direct'. Furthermore, three classes of transaction are postulated, one of which is labelled 'directing'. We can, then, recognise directive functioning at each of four ranks in the discourse hierarchy: directive acts function as the heads of moves with overall directive function; these moves, in turn, act as the heads of exchanges whose function is also directive; and such exchanges are themselves the heads of directing transactions. In this way, we can formalise the observation that a single remark, or a much larger stretch of discourse, can be seen as having directive function.

Let us turn now to the relationship between the above discourse categories and illocutionary categories. In accordance with our more general observations in §4.5, we may say that mands can have a variety of discourse functions: according to Sinclair & Coulthard, they can act as starters, prompts, clues, cues, asides or directives. A mand will function as a directive discourse act only if it is the head of an opening move, its primary function being to secure action. In its other

discourse functions, a mand serves purposes which are subsidiary to those of the head act: when acting as a clue, for example, the mand channels attention towards a particular area in order to make a correct answer to the head elicitation more likely, as in 4.3/4.4, discussed earlier.

Again in accordance with our earlier discussion, we see the interpretation of potentially directive utterances as involving two kinds of relationships: those relating illocutionary properties to literal meaning and non-linguistic context via the Gricean conversational rules; and those taking us from illocutionary properties to the precise discourse function, as determined by the particular position of the utterance within the discourse structure.

We must now ask whether the finer classification of mands as orders, requests, suggestions, and so on, has any reflection at the discourse level: that is, whether we can recognise, on discourse criteria, subclasses of directive which we can label [order], [request], and so on. Sinclair & Coulthard (p. 134) appear to suggest that these are to be regarded as delicate discourse categories, when they say that "the division of directive into all the many kinds involves a study of the illocutionary force of each". This claim is made within the context of a discussion of moves, although, as we saw earlier, Sinclair & Coulthard do not propose a specifically directive class of move. Coulthard elsewhere remedies this omission, and makes it quite clear that he regards orders and requests as more delicate subclasses of directing move (Coulthard 1975: 76):

At secondary delicacy, Opening moves ... are divided into Informing, Eliciting, Checking and Directing, and at tertiary delicacy distinctions such as those between ordering and requesting would be handled.

Unfortunately, Sinclair & Coulthard do not provide evidence that these illocutionary categories can indeed also be regarded as discourse categories. As they point out (p. 143), "only where there is a unique effect on the structure of exchanges are there grounds for recognising a distinct category of move". The question we have to ask, then, is whether orders, requests, suggestions and maybe even other illocutionary types, offer different ranges of structural potential in terms of what can follow them in discourse.

Green (1973) has attempted to correlate the form (imperative or whimperative) of what she calls 'Impositives' (see §3.3.3) and the appropriateness of particular types of response. Let us, for the present, assume that directly used untagged imperatives are normally interpreted as orders, and modalised whimperatives as requests: we shall, in fact, test these hypotheses in Chapter 10, and find strong support for them. Then what Green is claiming can be rephrased, in our terms, as postulating a difference in the range of appropriate responses for (imperative) orders and (whimperative) requests. Table 4.1 summarises the main claims made in Green's paper (1973: 53-5).

It can be seen that imperative and whimperative directives are claimed to differ in respect of three kinds of response. Two of these claims, at least, are dubious. *No* does not seem to be any more appropriate as a response to an imperative than as a response to a whimperative, though the

Form of directive	Response							
	OK/All right/ Sure	Yes	Yes + respectful vocative	Yes + non- respectful vocative	No	No + respectful vocative	No + excuse	Excuse only
Imperative	+	-	+	-	+	-	-	+
whimperative	+	-	+	+	-	-	+	+

Table 4.1: Appropriateness of response to directives, as claimed by Green (1973)

reasons for inappropriacy are different in the two cases. In reply to an imperative, *No* challenges the authority of the speaker which is implicit in the use of the bald imperative form, and which is still present even if a softener such as *please* is added. In reply to a whimperative, on the other hand, *No* seems rude, not because of any defiance of authority, but because the directive has been made in a polite way, and it is churlish to refuse without even offering an excuse. This brings us to Green's second dubious claim, that *No* plus an excuse is inappropriate as a response to an imperative, though acceptable after a whimperative. The following piece of dialogue, though starred as unacceptable by Green, is perfectly acceptable to the present writer, if somewhat grotesque:

4.24 (= part of Green's 15)

Take out the garbage (please)

No, I'm sorry, I can't, I've broken both my arms.

Green's third claim, that a non-respectful vocative cannot be used when acceding to an imperative-form directive, does, however, seem to be valid. We should indeed expect that there would be a clash between the lack of respect in the vocative and the authority implicit in the unsoftened imperative.

Further, we may note that Green rules out *Yes* as a reply to both whimperatives and imperatives. The present writer, however, although agreeing that *Yes* is not a suitable reply to an imperative, finds the following piece of discourse, starred by Green (p. 54) completely acceptable, provided that the reply is combined with initiation of the appropriate action:

4.25 (= part of Green's 16a)
Would you take out the garbage please.
Yes.

Thus, although certain of Green's arguments are based on possibly dubious data, there do appear to be some grounds for distinguishing between imperative- and whimperative-form directives in terms of their structural potential in discourse. If, then, we assume that bare imperatives are interpreted as orders and modalised whimperatives as requests, then ordering and requesting do indeed seem to be definable at the discourse level, as classes of move which offer different structural possibilities within the exchanges of which they form part.

Also pertinent here is the work of Lee (1974). As was mentioned briefly in §3.3.3, Lee suggests that opaque directives (which she terms 'perlocutionary') can be distinguished from those with some overt marker of potentially directive function (those which Lee terms 'illocutionary') by examining the range of appropriate responses. The following examples are based on Lee's (19)-(27):

- 4.26 A. It's cold in here.
B. *OK.
OK, we'll leave now.
- 4.27 A. The window's open.
B. *All right.
All right, I'll close the window.
- 4.28 A. Do you have the time?
B. *Sure
Sure, it's ten o'clock.

OK, *All right* and *Sure* are, then, inappropriate as replies to opaque directives, although they are, as we saw above, appropriate in response to imperative- and whimperative-form directives. Opaque directives require, in the reply, an explicit reference to the propositional content of the implied directive. This suggests that we should make a distinction at the discourse level between opaquely and overtly directing moves, motivated in terms of their structural potential.

Lee also points out (1974: 33) that 'illocutionary suggestions to consider' can be replied to by means of remarks such as *That's a good/lousy idea*. Although Lee herself does not pursue this line of enquiry, since she is more interested in distinguishing between 'perlocutionary' and 'illocutionary' directives, we may note that her observation can be used to provide a justification for separating overt suggestions from whimperative requests and orders. Compare the following:

- 4.29 A. I don't know what to do tonight.
B. You could go to the cinema.
A. That's a good idea.
- 4.30 A. Go to the shop for me.
B. *That's a good idea.
- 4.31 A. Would you go to the shop for me?
B. *That's a good idea.

The reply in 4.30 and 4.31 is, at best, facetious, and certainly not in any way normal. Note also that *OK*, *All right*

and *Sure* are possible responses to at least some suggestions, as they are to other overt directives, although they are usually followed by some kind of reinforcement:

- 4.32 A. I don't know what to do tonight.
 B. You could go to the cinema.
 A. OK/All right/sure (, I will)

Furthermore, *Yes* is also possible:

- 4.33 A. I don't know what to do tonight.
 B. You could go to the cinema.
 A. Yes (I suppose I could)

Table 4.2 summarises the differences in appropriate response type for the various subcategories of directing move.

Subclass of directing move	Response		
	<i>OK/All right/Sure</i>	<i>Yes</i> (+ action)	<i>That's a good idea, etc.</i>
Opaque	-		
Overt	+		
overt { Order	+	+	-
Request	+	+	-
Suggestion	+	+	+

Table 4.2: Response tests for subclasses of directing move

It would seem that other illocutionary classes such as *pleas* probably do not constitute separate discourse classes: note that 4.34, said with the 'pleading' fall (on *please*) plus low rise intonation, has the same range of responses as a normal request:

- 4.34 A. Please would you go to the shop for me.
 B. OK/Sure/All right.

We have followed Coulthard in treating ordering, requesting, suggesting and opaquely directing as constituting subclasses of directing move, since it is the difference in structural potential within the exchange which provides evidence for this classification. However, in line with our previous discussion of directiveness in relation to different sizes of discourse unit, we shall need to recognise that an ordering, requesting, suggesting or opaquely directing move is such because of the nature of its head act. Thus directive acts will also need to be subclassified as orders, requests, suggestions or opaque directives, when we come to discuss the formalisation of discourse relations in Chapter 6.

4.7 Concluding remarks

Speech act theory is not, by itself, adequate as a linguistic account of the communicative functions of utterances. Because it does not take into account the linguistic context of an utterance, it fails to make any structural predictions about the ways in which utterances can fit together in discourse. Discourse analysis, on the other hand, is concerned with the contribution of speakers' utterances to the structure of ongoing discourse, and offers a means of describing suprasentential organisation in terms of the syntagmatic and paradigmatic patterning already recognised for lower levels.

The two approaches to communicative function are not, however, as distinct as some discourse analysts would suggest. The speech act nature of an utterance restricts its discourse potential, and Sinclair & Coulthard's 'situational' categories of command, question and statement, intended to mediate between

discourse proper and the grammar, are readily reinterpreted as illocutionary categories. Since, as Sinclair & Coulthard state, the discourse function of an item has already been tagged with a 'situational' category, we can argue that the determination of speech act function is part of the function of the rules for the interpretation of utterances. This interpretation, we have argued, must make reference to the semantic properties of the sentences used, if we are to explain why particular forms, but not others, can be used with particular communicative functions. Thus discourse categories should not be mapped directly on to syntax, as Sinclair & Coulthard attempt to do, but only indirectly, via the semantic level. The interpretive device takes the literal meanings of sentences, and aspects of the non-linguistic context, as input, and uses the Gricean conversational rules to arrive at an assessment of the speech act performed by the speaker. Consideration of the position occupied by the utterance in the discourse structure will then allow determination of the specific discourse function of the utterance.

In the specific area of directive function, we have seen that illocutionary 'mands' may serve a number of more specific discourse roles, as starters, clues, cues, asides and directives within Sinclair & Coulthard's scheme, for instance. Only when a mand is acting as the head of an opening move can it be considered a directive, as defined in discourse terms. We have shown that more delicate subclasses of directing move (ordering, requesting, suggesting and opaquely directing moves) can be recognised on the basis of the different ranges of responses they allow within the exchange of which they

form part. In the orders, requests, suggestions and opaque directives which act as the heads of such moves, we have discourse acts which correspond exactly to speech acts, in that the speech act function is also the primary function of the act within the structure of discourse, rather than being subsidiary to the function of some other act.

We emerge, then, from the discussion in Chapters 3 and 4, with the skeleton of a model for the analysis of directive (and other) communicative function, with levels of discourse, semantics, syntax and phonology, linked by mapping relations for the re-interpretation of categories at one level in terms of those at the next level. It is to a more detailed formulation of such a model that we turn in Chapter 5.

5: THE LINGUISTIC MODEL: AN OVERVIEW

5.1 Introduction: levels and their relationship within the model

In the last two chapters, we have argued for a multi-level approach to the analysis of directives. The aim of the present chapter is to give an overview of a model which recognises each of the levels shown in Fig. 5.1, and which will provide the framework for¹ the detailed descriptions presented in Chapters 6, 7 and 8.

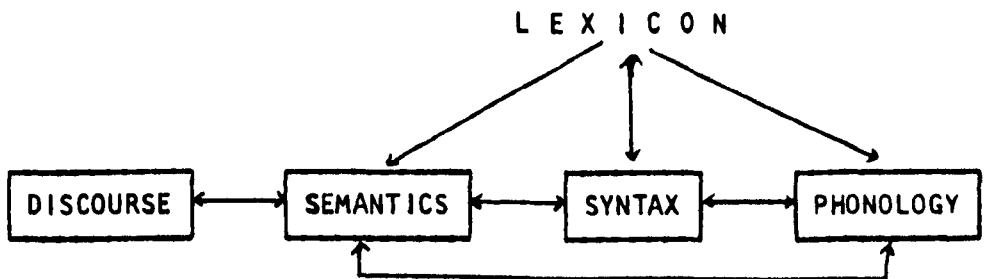


Fig. 5.1: Levels in the model

Each level will have its own set of rules, the nature of which is discussed below. In addition, between each successive pair of levels there are mapping rules, which will give the correspondences between (i) discourse specifications and semantic specifications, (ii) semantic specifications and the syntax, also correlations of semantic properties with stress and intonational phonology, (iii) formal specifications and the phonology. The nature of mapping rules is outlined in §5.7. The lexicon contains semantic, syntactic and phonological information, and can itself be regarded as a set of mappings from these three levels on to lexical items.

5.2 A multi-level daughter dependency model

The theoretical basis of our model will be Hudson's daughter dependency grammar (DDG), as described in Hudson (1976, 1978) and reviewed by Schachter (1978, 1980) and Ostler (1980). There are several reasons for the choice of DDG, rather than one of the Hallidayan models, as a basis for our more comprehensive scheme.

In Chapter 2, we argued for a model which recognised the autonomy of syntax and semantics (though without, of course, wishing to deny the sometimes quite close correspondences between the levels), as against a model which was either 'semantico syntactic', or regarded the syntax as merely the servant of the semantics. Hudson is, as we have seen, the only systemically-oriented linguist who has adopted this viewpoint. Halliday's work has been, and continues to be, somewhat ambivalent on the relationship between semantics and syntax, and pays scant attention to most of the areas with which other syntactic models have been concerned. Fawcett's model denies to the syntax any importance other than its role in realising semantic choices. Hudson, on the other hand, has tackled problems, such as complementation, raising, and the status of auxiliaries, which have been at the forefront of syntactic debate, and it is his work, rather than Halliday's, which has been hailed as a serious theoretical rival to transformational grammar (see Schachter 1978, though Ostler's (1980) review is less laudatory).

One of the main reasons for the seriousness with which Hudson's work must be taken is its strong emphasis on explicitness. DDG is a generative model, in which not only the systemic

choices and their interrelations, but also the realisation rules translating these into syntactic structures, are specified to a degree of detail unrivalled in any of Halliday's accounts.

DDG provides a particularly appropriate basis for a more comprehensive multi-level model, because the elementary relationships on which it is based are those which are needed at all levels of linguistic description: the cross-classification of items which are in paradigmatic relation; and the relations of constituency, dependency and sequence¹ in linguistic structures.

It is proposed, then, that phenomena at each of the four levels shown in Fig. 5.1 can be described in terms of the same basic framework of category and rule types, based on DDG. For each level, we shall recognise:

- (i) a set of units, which are classes of 'item' at that level, at primary delicacy;
- (ii) a system network, showing sub- and cross-classification of the units at that level;
- (iii) a set of permitted structures, made up of units of particular classes, and showing the relationships of constituency, dependency and (except for the semantics) sequence;
- (iv) a set of realisation rules linking systemic contrasts to structures, the rules being of similar types at all levels, though with some omissions and modifications.

¹ Sequence, as we shall see in §5.6, is not needed in the semantics.

In what follows, we shall outline the application of this general scheme to each level. We shall not, however, present more than a general overview, since a fuller picture of how the model works for discourse and semantics will be gained from the detailed discussion in Chapters 6, 7 and 8.

5.3 Syntax

5.3.1 An outline of daughter dependency grammar

We shall restrict ourselves here to a brief outline of the similarities and differences between DDG and previous systemic models, and of the way in which the grammar generates sentences.

In line with previous Firthian and neo-Firthian models, DDG makes a clear-cut distinction between paradigmatic and syntagmatic patterning. Paradigmatic relations are shown by means of 'classification rules', expressible as system networks, whose function is to specify which features can co-occur on a given node; syntagmatic relations are shown in structural representations, derived from feature classification specifications by means of 'structure-building rules'. In his treatment of paradigmatic relations, Hudson breaks with the Firthian 'poly-systemic' approach, in which systems are formulated for particular structural environments. Instead, Hudson treats the environments themselves as being in paradigmatic relationship. Thus, in DDG, paradigmatic relations are simply classification relations, and the process of formulating contrasts is one of finer and finer classification of linguistic items, with no distinction between features such as 'singular/plural' and 'category labels' such as 'NP, clause'. In a DDG, then, we

have a single supernetwork, in which the initial term is [grammatical item], this being divided into [clause], [phrase], [word], and so on, each of these then being subclassified in various ways (e.g. [clause] as [independent] or [dependent]). This contrasts with a Hallidayan grammar, in which there is a separate set of networks for each 'point of origin' defined by a rank of unit (and possibly a class of that rank of unit). Hudson's model presents a more integrated picture of the grammar, but with a concomitant weakening of the importance of the rank scale in the theory.

As its name suggests, DDG gives particular prominence to dependency relations in syntax, incorporating many of the insights of European dependency theories based on the work of Tesnière (see e.g. Tesnière 1959; Vater 1975; Werner 1975). As well as dependency relations between mothers and their daughter constituents, Hudson recognises such relations also between sisters. The formalisation of these sister dependency relations constitutes a major difference between DDG and previous systemic (and indeed TG) grammars. A typical example of such a relationship would be that between the feature [+ transitive] on a verb and the presence of a sister marked as [+ nominal] to act as an object of the transitive verb.

Like other systemic models, DDG specifies function labels for certain constituents. The use of such functions is, however, much more tightly constrained than in Hallidayan semantico syntactic grammars or, indeed, Hudson's own previous formulations (see, for example, the plethora of functions in Hudson (1971) which, as the author later admitted, led to too powerful a grammar). In DDG there are just four functions (SUBJECT,

TOPIC, RELATOR and SCENE-SETTER), all of which are concerned with the problem of ordering constituents at the left-hand end of clauses.

In the generation of a syntactic structure in DDG, the classification rules and structure-building rules operate in a cyclic fashion. For a given item (e.g. a clause), features are selected from the system network (or, to put it another way, in accordance with the classification rules) for that item. The structure-building rules then operate on these features to build up features of the constituents, or daughters, of the item. The cycle is then repeated for each daughter, and the process continues until no more rules can be applied. A lexical matching procedure then gives the final lexicalised syntactic structure.

The structure-building rules are of six types. Daughter dependency rules show what features of daughters arise in response to certain features of the mother. One such rule, for instance, states that any non-embedded interrogative clause (defined by a certain combination of features) must have, as one of its daughters, a finite auxiliary verb. Sister dependency rules, on the other hand, define dependency relations between sisters, such as that discussed above between a transitive verb and its nominal complement. As Schachter (1978: 359) points out, the distinction between these two types of dependency rule formalises the empirical observation that the properties (and, indeed, the presence) of some constituents may depend on those of a fellow constituent, but be independent of those of the mother. The complementation pattern in a clause, for example, depends not on the type of clause (main/

subordinate, imperative/declarative/interrogative, etc.) but on the properties of the verb constituent. In a later article, Schachter (1980: 281-2) proposes criteria for the use of daughter and sister dependency rules, suggesting that all head nodes, and all non-head nodes whose properties depend exclusively on those of a dominating node, should be introduced by daughter dependency rules, while those non-head nodes whose properties depend exclusively on the features of their head should be introduced by sister dependency rules. In cases where the properties of a node depend both on those of the head and those of a dominating node, an interaction of daughter and sister dependency rules will be needed.

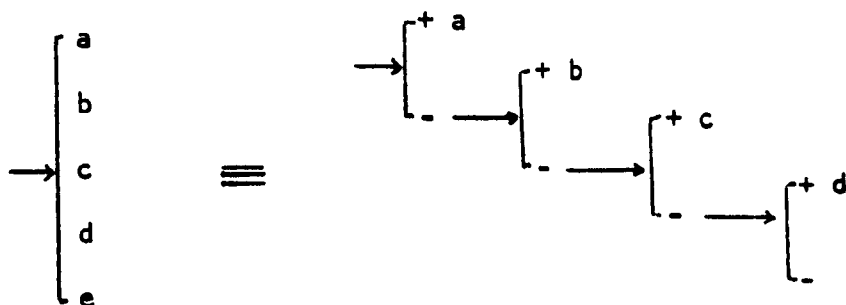
The dependency rules specify nothing whatever about the sequence of constituents; this is the job of a separate set of ordered sequence rules, operating in conjunction with peripherality assignment rules. These latter rules, which are by no means fully discussed by Hudson, are concerned with the likely distance of constituents from the verb, considered as the nucleus of the clause.

The remaining two types of structure-building rule are concerned with the addition of further labels to nodes built up by the dependency rules. Feature addition rules are needed where features of a particular constituent cannot conveniently be introduced by means of daughter dependency rules. Function assignment rules attach function labels to certain clause constituents, as discussed briefly earlier.

Two restrictions imposed on the rules of daughter dependency syntax should be mentioned here, since we shall need to abandon them when we come to apply the general framework to

the sub-models for other levels. Hudson (1976: 30-31) points out that although classification rules can be expressed as system networks, there are two differences between these rules and the networks proposed in previous systemic models. Firstly, all contrasts are binary, since sets of three or more alternatives do not appear to be needed in the syntax. Secondly, Hudson does not allow contrasts to apply to disjunctions of features, since he believes that this is unnecessary, and makes the grammar too powerful.

On the question of binarity, we may note that any set of contrasts involving more than two terms can be reduced to a series of binary contrasts, as shown below.



There may, however, be no justification for treating [[±] a] as the primary contrast rather than, say, [[±] c]. Furthermore, as pointed out by Schachter (1978: 366), the negative labelling of certain features can lead to an unfortunate lack of clarity. In the binary version of the above set of choices, for example, the feature [- d] is equivalent to [e] in the simpler version. In formulating networks for discourse and semantics in Chapters 6 - 8, we shall admit multi-term systems where there is no independent justification for splitting them up into binary contrasts. A cover feature corresponding to the dis-

junction of two more delicate features will be set up only where it is needed for the formulation of explicit and maximally economical realisation rules, including mapping rules between levels. We shall use negative labels at times, but only where no obvious positive label is available, and where no lack of clarity will arise.

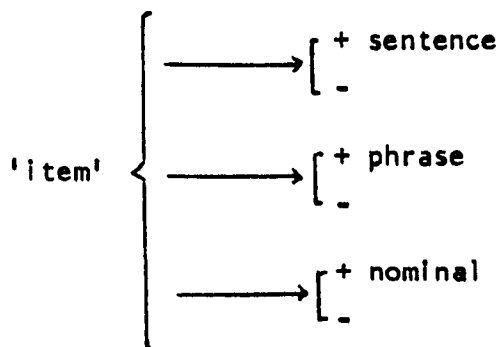
Hudson's second ban, on subclassification of unrelated and thus disjunctive features, has been challenged by Schachter (1978: 368), who shows that such subclassifications are needed in areas of the syntax not covered by Hudson. We shall find that in formulating semantic networks we shall occasionally need disjunctions.

5.3.2 The syntax of modalised sentences: an example derivation

To illustrate the operation, in the area of modal syntax, of the rules outlined in §5.3.1, we shall now take a simple modalised sentence with potential directive function, and trace, step by step, the generation of its syntactic structure. The sentence to be generated is:

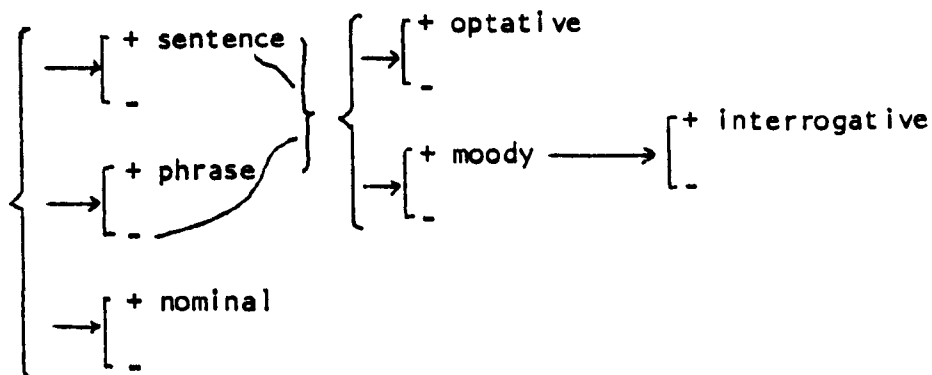
5.1 You must paint the house.

First, we form a selection expression of features for the whole sentence as a syntactic 'item', by choosing from the primary classification network (Hudson 1976: 182, repeated below).



Our example clause has the features [+ sentence, - phrase, - nominal]. The combination [+ sentence, + phrase, + nominal] is intended to account for gerund clauses, and [+ sentence, - phrase, + nominal] for other kinds of noun clause.

The network for clauses (i.e. items classified as [+ sentence]) may now be entered (Hudson 1976: 183). We give below just that part of this complex network which is needed for the generation of our sentence.



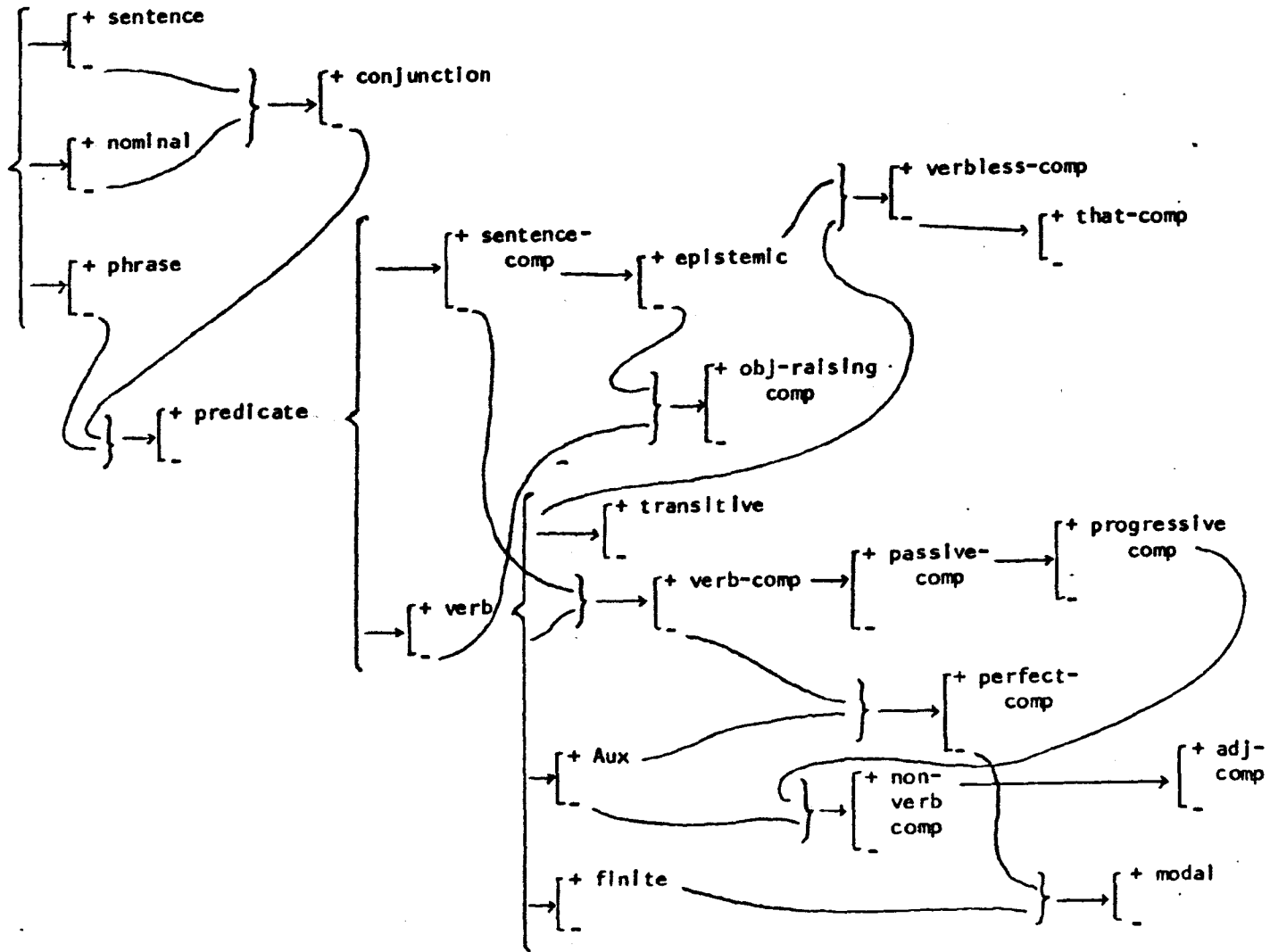
From this network, our example selects the additional features [+ moody, - optative, - interrogative].

Having specified a selection expression for the whole clause, we now consult the daughter dependency rules for clauses, to see what features of the daughter constituents can be predicted. Rule DDI (p. 189):

+ sentence → item

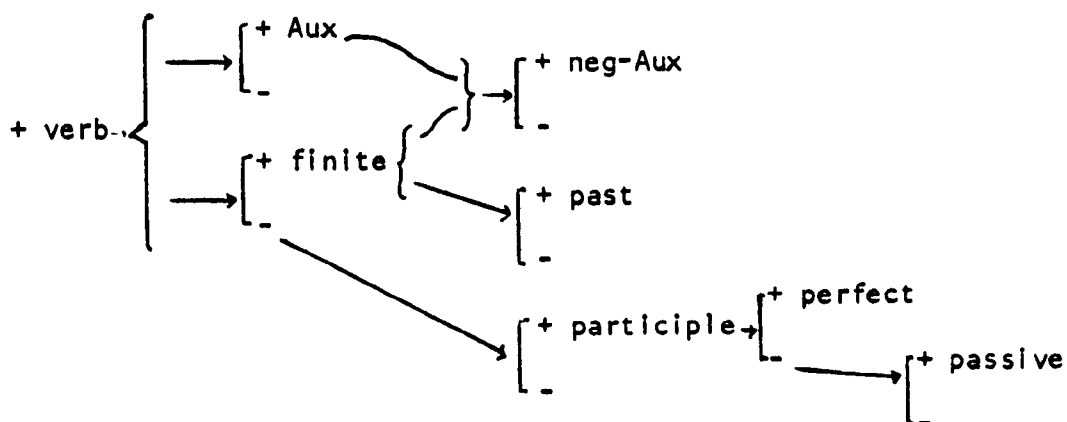
states that every clause contains one item whose features reflect those of the clause. The feature addition rules tell us what feature(s) this item will possess. Rule FA7 (p. 192) says that the daughter will in fact be a finite verb.

Looking now at the network for verbs and adjectives (given by Hudson on p. 186, and reproduced below), we can see



from the delicacy ordering of features that the finite verb must also have the feature [+ predicate]. We can also select further features for this finite verb; in our case, these are [+ Aux, + verb-comp, - transitive, - passive-comp, - perfect-comp, + modal].

The network for verb forms (Hudson p. 187, and below) allows us to add the features [- neg-Aux, - past] to the specification of the auxiliary verb.



We have now built up a complete selection expression for the finite verb constituent of the clause. Consulting the dependency rules, we find that there are no daughter dependency rules relevant to finite verbs, but sister dependency rule SD1 (p. 190) states that the predicate must be accompanied by a nominal (which will eventually turn out to be its subject). We shall return later to the structure of this nominal element. The rule relevant to its generation is as follows (note that for sister dependency rules the arrow is written higher up than for daughter dependency rules).

+ predicate $\xrightarrow{\hspace{1cm}}$ + nominal/ *not* + passive

Rule SD13 (p. 191):

- perfect-comp \longrightarrow - participle

will also operate, since our verb is [- perfect-comp]. The feature [- participle], as can be seen from the network for verb forms given earlier, presupposes the features [+ verb, - finite]. We therefore have, as a verbal complement to our finite verb, a non-finite, non-participial verb - i.e. an infinitive, or rather a bare infinitive, since the *to* + infinitive structure is specified in a different way in the grammar, which need not detain us here. This example underlines the point made by Schachter (1978: 366) and remarked upon earlier, that the negative specification of features (e.g. [- participle] instead of, say [+ infinitive]) somewhat detracts from the clarity of Hudson's model.

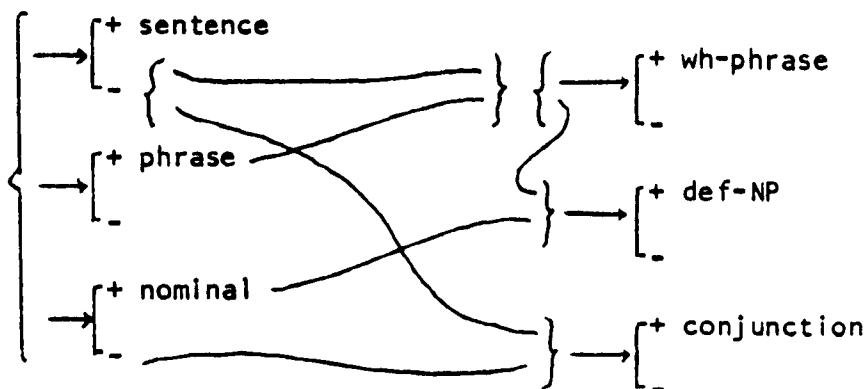
Additional features may now be chosen for the infinitival complement by consulting the network for predicates (verbs and adjectives). The feature [+ predicate] is automatically present, since [+ verb] depends on it. The extra features are: [- sentence-comp, + transitive, - verb-comp, - Aux]. Rule SD1 (already quoted) tells us that we must have a nominal as a sister of the item with the feature [+ predicate]. As we shall see, this is the same nominal as that introduced by the earlier application of Rule SD1 (i.e. one and the same nominal will be the subject of both finite and non-finite verbs). SD2 (p. 190) also applies:

+ transitive \longrightarrow + nominal

so that a further nominal is introduced as a complement of the

transitive verb.

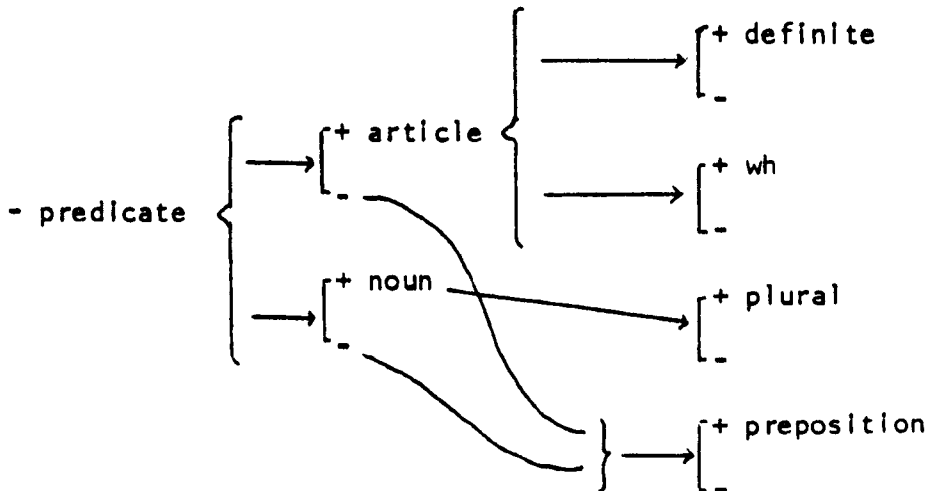
Let us now return to the structure of the nominal introduced by Rule SD1. From the network for the primary classification of syntactic items, given earlier, we choose the features [- sentence, + phrase] to accompany [+ nominal]. The network for phrases (p. 184 and below) then allows the addition of the features [- wh-phrase, + def-NP].



Daughter dependency rule DD8 (p. 189) now says that the nominal phrase must have a noun or pronoun as its head:

+ phrase, - sentence, + nominal \longrightarrow + noun

The network for words other than predicates (p. 188 and below) allows us to add the feature [- plural] to the noun node (assuming that *you* is singular here).



Daughter dependency rule DD10 (p. 189):

+ def-NP \longrightarrow + definite

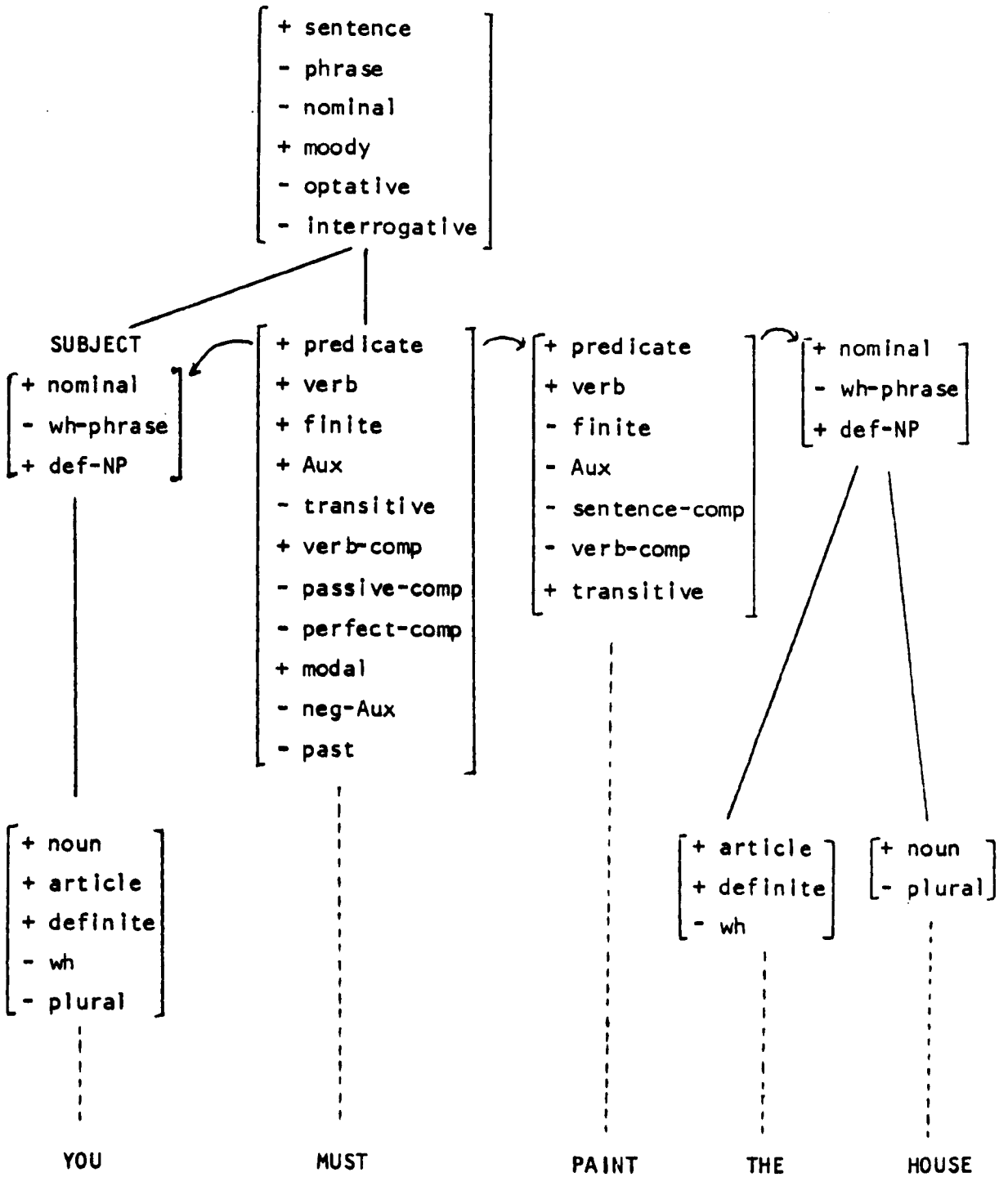
says that the phrase must have either a definite article or a definite pronoun. From the network above we select [- wh] to go with this feature.

The derivation of the structure of the nominal introduced by SD2 (which will eventually be realised as *the house*) is identical, up to this point, with that traced above. Both *you* and *the house* have the features [+ definite, + noun]. The network for words other than predicates allows these features to be shared by the same constituent, in which case a pronominal NP results, as in our subject NP *you*. There is, however, nothing to say that the features must be on the same constituent. In the case of our object NP *the house*, [+ definite] is carried by *the*, and [+ noun] by *house*.

This completes the work of the classification rules, daughter- and sister-dependency rules, and feature addition rules. Consulting the function-assignment rules, Rule FU1 (p. 193) specifies, among other things, that SUBJECT is present as a daughter of [+ sentence] if another daughter is [+ finite], as is the case in our example. Rule FU2 (p. 193), assigns this function to the least peripheral nominal complement of the least peripheral verb. Although, as we have seen, the peripherality assignment rules are not worked out in full by Hudson, it is clear from his discussion of peripherality (pp. 92-7) that the least peripheral NP is the pronoun rather than *the house*. The function SUBJECT is therefore assigned to the pronominal NP.

Finally, we consult the sequence rules, to decide on the ordering of the daughters. Rule S7 (p. 195) states that items with functions precede items without functions; the pronominal subject must, therefore, come first, since it is the only constituent with a function label. Rule S9 (p. 195) tells us that the least peripheral complement of a dependent verb must be combined, on the same node, with the most peripheral complement of the verb on which it depends. The least peripheral complement of the infinitive verb is the one introduced by SD1; the finite verb has only one nominal complement (its subject). This sequence rule thus ensures that the subject of the finite verb and that of the infinitive are one and the same nominal. Rule S11 (p. 196) says that if one item depends as a sister on another, the two must be adjacent (subject to this not conflicting with earlier sequence rules), and the dependent one should come second. This has the effect of placing the infinitive after the finite verb, and the second nominal after the infinitive. Finally, since the feature [+ definite] presupposes [+ article], and the features [+ definite] and [+ noun] are on different nodes in the object NP, Rule S5 (p. 195) applies, to place the article before the noun.

The complete syntactic structure of our example sentence, built up as detailed above, is shown overleaf.



5.4 Phonology

In the present work, phonology is of only peripheral concern and will not, therefore, be discussed at length here. It should be quite possible to reformulate, within a daughter

dependency type of framework, the work of Halliday (1967, 1970c) on intonation, that of Abercrombie (1964) on rhythm and syllable quantities, and that of Brazil (Brazil 1975, 1978; Brazil, Coulthard & Johns 1980) on the role of intonation in discourse. Unfortunately, segmental phonology has so far been the cinderella of systemic linguistics (though see Berry 1977), and no substantial proposals for phonemic or phonotactic networks have so far appeared in print.

The units in a daughter dependency treatment of phonology (i.e. the least delicate terms in a network for phonological items) would be: phoneme, syllable, foot, tone group and pitch sequence. The term 'pitch sequence' is used here, as in Brazil *et al.* (1980), to refer to a sequence of tone groups with different values of 'key'.

A sub-network for phoneme classification would start from the vowel/consonant distinction, and would then sub- and cross-classify phonemic items in such a way as to generate selection expressions identifying uniquely the phonemes of the language.

The sub-network for syllables would classify this unit in terms of salience and length, and would specify the features necessary to generate the general syllable structure $C_{0-3} V C_{0-4}$.

The foot sub-network would classify the foot in terms of degree of sounding (silent, partially or fully sounded), pace, and markedness of boundary location.

The tone-group sub-network could take over, with some modifications, the distinctions of tone proposed by Halliday (1967, 1970c) or by Brazil (1975, 1978). The notions of tonality (the number of tone groups in a given stretch of

speech) and tonicity (location of tone group boundaries) would be more difficult to build in, because they are based on correlations between phonology and syntax (in particular, the relationship between tone-groups and clauses). These phenomena might be best handled in the syntax/phonology mapping rules, if at all: Brazil's model finds no need for them.

A sub-network for the pitch sequence would presumably classify this unit in such a way that the different structural possibilities could be generated. Work in this area is, however, still in its infancy.

Realisation rules for each unit would specify what features should be present on the daughters for any given mother unit, what sisters could be introduced to accompany particular daughters, and what order the sisters must occur in. For instance, the realisation rules associated with the syllable sub-network would specify the features of the daughter phonemes for different classes of syllable, and the ordering of these daughters in phonotactic combinations. Similarly, the realisation rules associated with the foot sub-network would specify the number of daughter syllables for feet with different pace features, and would ensure, for instance, that each fully sounded foot had, as a daughter, one syllable of the class [+ salient], which precedes any other, [- salient] syllables.

Although much of this area is still virtually unexplored, the above brief comments will, it is hoped, suffice to indicate that a daughter dependency framework could handle a phonological description.

5.5 Discourse

Following Sinclair & Coulthard (1975) and Burton (1978, 1980) we shall take the units of the discourse level to be: act, move, exchange, transaction, interaction. These will, then, be the least delicate terms in our classification of discourse items. Each of these primary classes will then be subdivided, giving (eventually) the finest sub-classes of acts, moves, and so on.

As with the syntactic and phonological levels, the realisation rules will specify what classes the daughters of any given mother will belong to. For example, the realisation rules for moves will state, for each terminal class of move, what features must, or may, be present on the daughter acts, and in what order these daughters must occur within the structure of the move. We shall see that three of the types of realisation rule proposed for syntax (daughter dependency, sister dependency, and sequence rules) are needed for the discourse level.

Networks and realisation rules for discourse will be developed in Chapter 6, and therefore nothing further will be said about them here.

5.6 Semantics

5.6.1 The need for semantic structures

Halliday has argued, within the context of a sociosemantic model, that since the grammatical networks he proposes are already as semantically-oriented as possible, "it may be unnecessary therefore to intersperse another layer of structure between the semantic systems and the grammatical systems - given the

limited purpose of the semantic systems, which is to account for the meaning potential associated with defined social contexts and settings." (Halliday 1972/1973a: 95). Halliday does, however, recognise that if we attempt a formalisation of wider areas of meaning, we may well need to postulate semantic structures:

... when we attempt semantic representation for anything other than these highly restricted fields, it is almost certainly going to be necessary to build in some concept of semantic structure. (Halliday 1974/1978: 41)

He is, however, very vague about what semantic structures would look like. At one point (Halliday 1974/1978: 41) he suggests that some form of relational network (see Reich 1970) might be appropriate. He appears to believe that the semantic level is not organised analogously to the grammatical and phonological levels:

The semantic analogue of the rank scale would appear to be not some kind of hierarchy of structural units but the multiple determination of the text as a unit in respect of more than one property, or 'dimension' of meaning. (Halliday 1977b/1978: 136)

In what follows, we shall attempt to show that the semantic level can indeed be formalised in much the same way as syntax or phonology, in terms of units which can be sub- and cross-classified by means of system networks, and which combine to form structures. We shall see that there are indeed important differences between syntactic and semantic structures; nevertheless, the fundamental theoretical apparatus required is similar at all levels of linguistic organisation.

5.6.2 Semantic units and features

The sub-model of semantics to be proposed here owes much to the work of Leech (1969, 1974), who succeeds in integrating the framework of structural and systemic analysis with a 'logical semantics' approach to meaning. Leech's work is particularly important in that it counters a serious objection to 'neo-Firthian' semantics (and, indeed, to Firthian semantics - see Lyons 1966: 294), viz. that it shows cavalier disregard for relationships such as entailment, contradiction and tautology, between sentences, and hyponymy, antonymy, incompatibility, and the like, between lexical items, which most semanticists would regard as constituting part of the central core of their discipline. In Leech's account, such phenomena can be explained in terms of dependency and incompatibility between features, expressible in the form of semantic networks (see e.g. Leech 1974: 121).

Leech recognises three types of semantic unit: predication, cluster and feature. The term 'predication', which has also been used in stratificational theory (see e.g. Lockwood 1972: 142), is "a cover term for assertions (propositions) and assertion-like units, such as questions and commands" (Leech 1969: 22). Predications consist of clusters (in the simplest case), these clusters being of two main types, labelled (according to the conventions of formal logic) as 'arguments' and 'predicates'. Arguments correspond, in the unmarked case, to unmodified, unqualified noun phrases at the syntactic level, and are in fact the semantic units which carry the 'participant roles' of Halliday's transitivity relations (Actor, Goal, and the like). Predicates are the elements which link arguments

and correspond, in the unmarked case, to 'verbal groups' in a Hallidayan grammar (or sometimes to copulative verbal groups plus their nominal or adjectival complements). It must be stressed, however, that there are many cases where such one-to-one mapping between semantic and syntactic categories is not possible.

For Leech, as we have seen, the feature is also a semantic unit, in that clusters are composed of features. However, the sense in which clusters 'consist of' features is surely rather different from that in which predications consist of clusters. Semantic features, like syntactic or phonological features, represent the properties attached to units. In the case of a daughter dependency treatment, they will represent the sub- and cross-classification of units of the semantic level. Thus clusters 'consist of' features only in as much as each cluster has attached to it a bundle of semantic features giving its classification. Indeed, we shall need to classify not only clusters, as in Leech's scheme, but also predications, by means of features. It must also be remembered that in a daughter dependency model the units themselves are merely the least delicate terms in a network classifying 'items' at the semantic level.

5.6.3 Ordering in semantic structures

In any theory which postulates semantic structures, there arises the question of the ordering of structural constituents. Leech's view (Leech 1969: 23 ff.; 1974: 195) is that ordering is needed, but only in the case of so-called 'relational' predicates, where some kind of directionality is involved, such

that transposition of the arguments leads to a different meaning. Thus, for example, we have (Leech 1969: 39):

5.2 (a) . \longrightarrow EMO +LOV . (b) ' (a) loves (b) '

5.3 (a) . \longleftarrow EMO +LOV . (b) ' (b) loves (a) '

where the arrows represent the directionality of the predicate 'love'. Apart from such indications of directionality, semantic structures are regarded by Leech as unordered, so that two-dimensional representations of them should be regarded as freely pivoting structures, as in Chafe's image of the 'mobile' (Chafe 1970: 5).

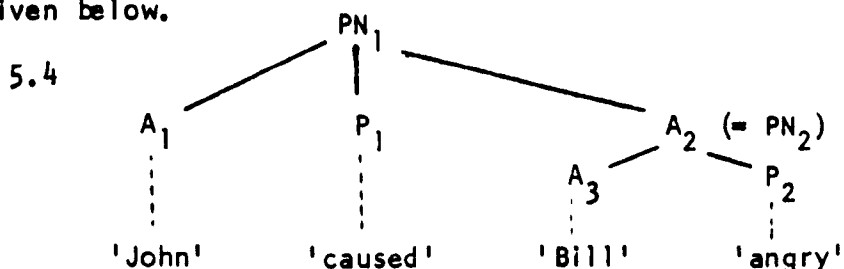
In stratificational theory, the elements of semantic structure are completely unordered (see e.g. Lockwood 1972: 142 ff.), the directional relationships in two-place predications being shown by the inclusion of semantic elements specifying participant roles such as agent, goal, recipient, beneficiary, instrument and causer. Such participant roles have also been postulated in case grammar (Fillmore 1968) and, of course, in Hallidayan systemic grammars, where they appear as (micro)-'functions' which occur in configurations specifying the constituent structure within each of the (macro)functional components. In our account of modal semantics in Chapter 8, we shall find that it is possible, for this particular area, to distinguish between the two arguments of a 'relational' predicate in terms of specific features attached to one argument but not to the other. This would not be possible in all cases, however: for instance, in Leech's example (our 5.2 and 5.3), there is no obvious feature distinguishing the two arguments of 'love'. In a full account of participant/process relations, then, we should need some mechanism for identifying

particular arguments of a 'relational' or 2-place predicate. Rather than admit ordering of semantic structures just for this one type of relation, it seems preferable to introduce function labels on particular arguments. Such a proposal would run parallel to the use of syntactic function labels (e.g. SUBJECT, TOPIC) in Hudson's syntactic model. Clearly, it would be necessary to restrict the use of function labels to those cases where they were indispensable for an economical and revealing account of the semantics. We shall have nothing further to say on the matter here.

5.6.4 Semantic embedding and 'downgrading'

Both Leech's model and stratificational theory allow for the building up of complex semantic structures by the embedding of one predication within another. Leech (1969: 25 ff.; 1974: 146 ff.) recognises two ways in which a predication may acquire subordinate function, which he calls 'rankshift' and 'downgrading'.

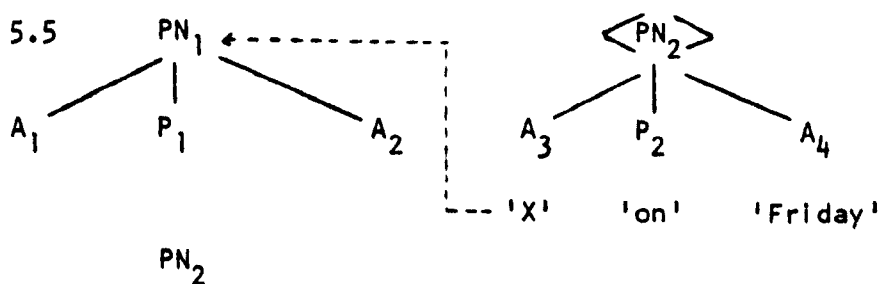
Rankshift is the occurrence of a predication as an argument within the structure of a 'larger' predication, and is entirely analogous to the grammatical rankshift proposed by Halliday (1961: 251). An example taken from Leech (1974: 147) is given below.



(i.e. 'John made Bill angry'
 'John angered Bill'
 'John caused Bill's anger', etc.)

Similarly, in Lockwood's account of stratificational theory (Lockwood 1972: 159 ff.) the semantic complexity of a sentence such as *Penelope will see that Sammy eats anchovies* is (partially) handled by making the predication corresponding to *that Sammy eats anchovies* a constituent of the predication corresponding to the whole sentence. In a daughter dependency account, embedding of this kind presents no difficulties: the embedded predication can simply be introduced as a daughter of the main predication (or as a sister to a daughter introduced by a previous rule).

Leech's 'downgrading' is the demotion of a predication (or possibly a cluster) to the status of a feature in a cluster. In this way, the semantic properties of a whole predication can be added to those of the argument or predicate to which it is subordinated. The use of downgrading in predicate clusters allows us to handle the semantics of adverbial modification, while downgrading within an argument cluster copes with the semantics of relative clauses. An example of a downgraded predication within a predicate cluster, taken from Leech (1974: 152) is given below.



'I' 'saw on 'the film'
Friday'

(i.e. 'I saw on Friday the film'
or 'I saw the film on Friday')

The significance of the dotted arrow and the label 'X' in this diagram is that the downgraded predication is joined to the main predication via a co-referential link between the first argument of the downgraded predication and the whole of the main predication (apart from the downgraded part). That is, the proposed structure is (informally) equivalent to: 'My seeing the film (was) on Friday'. Downgraded predications are also involved in the semantic specification of many individual lexical items - e.g. *butcher* = 'a man who sells meat'.

We shall see in Chapter 8 that the downgrading or 'featurising' of predications is also needed in our own model, to account for the element of causation involved in the semantics of some modal constructions. Meanwhile, it should be noted that downgrading represents an extension of the theoretical apparatus required to account for embedding at the syntactic level. Consider the case of a noun phrase qualified by a relative clause (e.g. *a man who sells meat*). In the syntax, the relative clause would be represented as a daughter of the NP, as would the noun and article. In the semantics, however, the complex of features encoded in *who sells meat* must be added to the specification of the rest of the argument cluster, since clusters have no constituents to act as daughters. The area of embedding and related phenomena is, then, one which differs to some extent from one level to another: the outer levels (discourse and phonology) do not allow the 'demotion' of units to act as constituents of units of equal or smaller 'size'; syntax does allow this kind of embedding; semantics, too, allows predications to act as arguments of other predications, and also requires a mechanism whereby the feature con-

tents of a whole predication can be added to those of a cluster.

5.6.5 Realisation rules in semantics

The rules required, in a daughter dependency treatment, to link semantic network options to semantic structures, are of the same basic types as those for syntax, although, as we shall see, one additional type of rule is needed. Daughter dependency rules state features of clusters which are predictable from features of their mother predication. Sister dependency rules show what sister clusters must (or may) be included to accompany particular daughters. Feature addition rules add features to constituents in response to certain other features, and will include those rules needed to add the feature specification of a downgraded predication to a cluster (see §5.6.4 above). As we have seen, function assignment rules are unnecessary for the limited area covered in the present work: they would, however, be used to distinguish between the arguments of a 2-place predicate in a full account of participant/process relations. Sequence rules are not, of course, needed, since the semantic structures of our model are unordered. A further type of rule is, however, required to deal with co-reference, or, more generally, 'identity' relations. This is important, not only in the semantics of pronominalisation, but also in relation to the linking of downgraded predications to the main predication (see §5.6.4). This represents only a minor extension of the theoretical apparatus, since a somewhat similar job is done by some of the sequence rules in the syntax, which state that certain complements are to be com-

bined, i.e. treated as 'the same' (see the discussion of Rule S9 in §5.3.2). The operation of these various types of rule will be illustrated in detail in Chapters 7 and 8.

5.6.6 Types of meaning represented in semantic networks, and the question of functional components

Much of the work in semantic theory which has emerged during the past two decades or so has concentrated almost exclusively on 'cognitive' meaning, and has virtually ignored what Halliday calls the interpersonal and textual aspects of meaning. Interpersonal phenomena have, as we saw in Chapter 3, received attention from speech act theorists of late, and there can be no doubt that any complete semantic theory must be capable of handling meanings such as those conveyed by the grammatical mood categories. Indeed, much of what will be proposed in later chapters about the semantics of modalised directives will be concerned with meanings of this kind.

The status of Halliday's textual 'meanings' within a semantic theory is, however, rather more problematic. Leech (1974: 22 ff.) regards 'thematic meaning', concerned with ordering, focus and emphasis, as peripheral to the main concerns of semantics. Kempson (1977: 192 ff.) prefers to see thematic variations in terms of a performance theory of language. For both Leech and Kempson, the over-riding consideration is that sentences with different textual properties, but the same ideational content (e.g. active/passive equivalents, variants with marked or unmarked theme) have identical truth conditions, and so allow identical predictions about logical properties such as entailment, contradiction, tautology, and so on. While applauding the rigour of a truth-based approach which is

reflected in the decision to treat textual meaning as peripheral, one cannot but admit, firstly that interpersonal phenomena are problematic for such an approach, and secondly that Halliday's work on textual phenomena is among his most insightful, and that some account of such phenomena should be given within an overall linguistic model.

The solution suggested here is to deal with textual phenomena in terms of mapping relations between semantics and syntax. That is, active/passive equivalents, and marked/unmarked thematic variants, would be treated as identical at the semantic level, but the ways in which the semantic features are mapped on to syntactic features would differ. As we shall see in §5.7, the mapping rules are seen as being sensitive to various factors of register and style, so that (in principle, at least) we could provide, for example, an account of the high frequency of passives in technical registers, or the higher incidence of certain kinds of thematic structure in conversation as compared with written English.

Halliday himself has commented (Halliday 1971b/1973a: 107) that the textual component is rather different from the others in that it is concerned with the organisation of the text itself, and is instrumental to the ideational and interpersonal components. The proposal made here would seem to take account of the basic differences between textual and other kinds of phenomena, while still according textual matters a place within the theory.

We are left with the question of whether to recognise distinct ideational and interpersonal components in our semantic networks. In formulating networks for semantic force

and modal meanings in Chapters 7 and 8, we shall attempt to make semantic generalisations without preconceived ideas as to partitioning of the networks into functional components.

5.7 Mapping relations

5.7.1 General nature of the mapping relations

We turn now to the nature of the mapping between representations at one level on to those at another level. Here, we shall be concerned only with those sets of mapping relations which link discourse to semantics, and semantics to syntax, the lexicon and intonational choices.

Leech (1969: 31 ff.) postulates two kinds of mapping rules (or 'expression rules', as he calls them - the term 'mapping relation' is preferred here, as being neutral with respect to direction) between semantics and syntax. One type (his 'feature expression rules') matches semantic features with syntactic features; or, rather, combinations of semantic features with combinations of syntactic features, since there is rarely a one-to-one mapping involved. The second set of rules (Leech's 'segmental expression rules') map structural constituents at the semantic level (predications, clusters) on to constituents at the syntactic level (clauses, groups, etc.)

Since, in a daughter dependency model, the units at a given level are themselves classes of 'item' at that level, and so are treated as features, we can collapse Leech's two types of mapping rule into one. The mapping relations proposed here will simply match complexes of features at one level with complexes of features at another level, these feature specifications including, of course, the types of unit involved at each level.

The mapping relations will in most cases be many-to-one or many-to-many, both between discourse and semantics and between semantics and syntax. As we have seen, there are many ways in which a given class of discourse act can be mapped on to semantic categories; and conversely a given semantic specification may have more than one possible interpretation at the level of discourse. Similarly, the same combination of meanings can often be realised syntactically and/or lexically in more than one way; and conversely one and the same syntactic structure may serve to realise more than one possible set of meanings. In the present work, we shall attempt to specify some of the factors which favour the choice of one semantic (and, ultimately, formal) realisation rather than other, within the limited area of modalised directives. In the following section, a brief idea will be given of the kinds of factor involved; detailed exposition must wait until Chapter 9.

5.7.2 Discourse/semantics mapping relations

Here, we are concerned with the ways in which the discourse feature combination [act, directive] can be mapped on to semantic features, and the factors conditioning the choice of one particular realisation rather than another. Briefly, it is proposed that alternative realisations of directives differ in politeness within any given social situation, defined in terms of certain properties of the participants in the interaction, such as authority status, degree of acquaintance, sex and age. In Chapter 9 we shall predict a scale of politeness for various semantic realisations (and ultimately, of course, for sets of lexico syntactic realisations) of directive acts in a given social context.

5.7.3 Semantics/(syntax + lexicon) mapping relations

Here, we shall need to specify the syntactic and lexical realisations of the semantic categories relevant to our analysis of modalised directives, namely those of semantic force and modal meaning. The conditioning elements here would, in a fully worked out model, involve not only parameters such as those mentioned above in relation to discourse/semantics mapping rules, but also factors such as focus and emphasis, zero realisation of semantic units (e.g. that bearing the function Actor, in an agentless passive clause), matters which in a Hallidayan treatment would be described under the textual component of the language system.

5.7.4 Probabilistic determination of inter-level realisation

The suggestions made in the foregoing sections inevitably lead to the postulation of probabilistic rules linking specifications at adjacent levels. That is, although it will almost certainly not prove to be the case that a particular configuration of social contextual features will absolutely determine a particular inter-level realisation, we may well be able to say that under given social contextual conditions a particular combination of discourse or semantic features is more likely to be realised in certain ways than in others.

In the present work, we shall set ourselves the relatively modest task of ordering alternative realisations on a scale conditioned by social parameters; however, a large-scale analysis of the realisations of directives actually used in defined social situations would presumably yield numerical values for the probabilities attaching to particular types of realisation.

Such textual studies would be a valuable follow-up to the work reported here.

6- SUBJECTIVES AND OTHER DISCOURSE CATEGORIES

6.1 Introduction

In Chapter 4, we argued that the concept of a 'discourse function' and indeed other types of discourse categories which lay below or above the semantic level could be accounted for in terms of parameters of discourse. We terming as the level of discourse the classes of discourse functions being set up on different grounds, or in a sense of the Sinclair & Goddard view. In Chapter 5, we proposed a similar procedure for describing the parameters of discourse at each of four levels (semantic, syntactic, semantic, discourse) could be described according to the principles set out by Hudson in his 1990 book 'Levels of discourse analysis'. The aim of the present chapter is to show how the discourse level (especially the production of text, discourse changes) can be described using the level of discourse 1, and in particular to show how the level of discourse 1 can be formalized, and related to the level of discourse 1.

PART II

DESCRIPTIONS

The substance of the description will be based primarily on Burton's (1990) work, most of which we regard now simply as Burton (1990), rather than on that of Sinclair & Goddard, since the latter, as we have seen, relates to a very specific model system (that of teacher-pupil interaction), while Burton's work provides the Sinclair & Goddard model to cover the analysis of conversation, albeit in the somewhat artificial context of a play text. During the course of the discussion, Burton's proposals will be

6: DIRECTIVES AND OTHER DISCOURSE CATEGORIES

6.1 Introduction

In Chapter 4, we argued that those aspects of directive function (and indeed other types of communicative function) which lay beyond or 'above' the semantic level should be accounted for in terms of paradigmatic and syntagmatic patterning at the level of discourse, classes of discourse item being set up on distributional grounds, as in a model of the Sinclair & Coulthard type. In Chapter 5, we proposed a comprehensive linguistic model in which patterning at each of four levels (phonology, syntax, semantics, discourse) could be described according to the principles set out by Hudson in his daughter dependency approach to syntax. The aim of the present chapter is to show how the discourse level (especially the properties of acts, moves and exchanges) can be described using the model of Chapter 5, and, in particular, to show how directive discourse function can be formalised, and related to other types of communicative function.

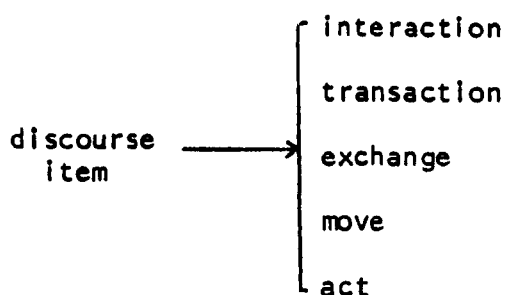
The substance of the description will be based primarily on Burton's (1980) account (part of which had appeared previously as Burton 1978), rather than on that of Sinclair & Coulthard, since the latter, as we have seen, relates to a very specific social context (that of teacher-pupil interaction), while Burton's work generalises the Sinclair & Coulthard model to cover the analysis of conversation, albeit in the somewhat artificial context of a play text. During the course of the discussion, Burton's categories will be

refined and extended, and their relationships formalised. We first build up a network of classification rules (systems), which will show the classificatory relationships between directives and other types of discourse category. We then discuss in more detail the formalisation of the more delicate classification of directives argued for in §4.6. Classes of discourse items are then related to structures at this level, by the setting up of realisation rules. Again, this is followed by a more detailed consideration of rules for directives. Finally, we give an example derivation of the structure of two exchanges, one of which is directive.

6.2 The discourse network

6.2.1 Primary classification

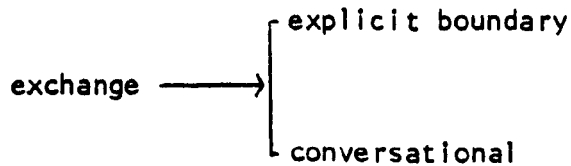
The least delicate terms in the classification of discourse 'items' are the unit labels which, with Burton (and Sinclair & Coulthard), we take to be: act, move, exchange, transaction, interaction.



The following sections develop sub-networks for exchanges, moves and acts.

6.2.2 The classification of exchanges

Burton (1980: 153) recognises two classes of exchange, labelled 'explicit boundary' and 'conversational'. Explicit boundary exchanges are optionally present at the beginning of transactions, and serve to mark the start of a new stage in the interaction. Conversational exchanges are those in the main body of each major stage in the conversation. As a sub-network for exchanges, we have simply:



6.2.3 The classification of moves

Burton (1980: 148) recognises seven classes of move: framing, focussing, normal opening, supporting, challenging, bound-opening and re-opening. The following examples will illustrate the nature of these move classes. They are taken from Burton's data on Pinter's play *The Dumb Waiter*, and do not in themselves form a continuous dialogue. B and G are the two speakers, Ben and Gus.

	<u>Move</u>	<u>Exchange</u>
6.1 B: Kaw!	framing	} explicit boundary
G: What's that?	supporting	
6.2 G: Oh I wanted to ask you something.	focusing	} explicit boundary
B: Ø (negative support)	supporting	

		Move	Exchange
6.3	B: What are you doing out there?	normal opening	} conversational
	G: Well I was just -	supporting	
	B: What about the tea?	bound-opening	} conversational
	G: I'm just going to make it.	supporting	
6.4	G: What time is he getting in touch?	normal opening	conversational
	B: ∅ (reads)	challenging	conversational
	G: What time is he getting in touch?	re-opening	conversational
	B: What's the matter with you? It could be any time. Any time.	challenging	conversational

Framing and focusing moves "are explicit markers of Transaction boundaries, and involve Acts that are essentially attention-getting, pre-topic items" (p. 148). These two classes of move thus have a functional similarity in marking boundaries. They are also similar in their potential within the structure of exchanges, as will emerge from later discussion of structures. In the realisation rules linking systems to structures, we shall need to refer to framing and focussing moves together; this, and the functional similarity, justifies the recognition of a less delicate feature, [boundary-marking], which then splits up into [framing] and [focusing].

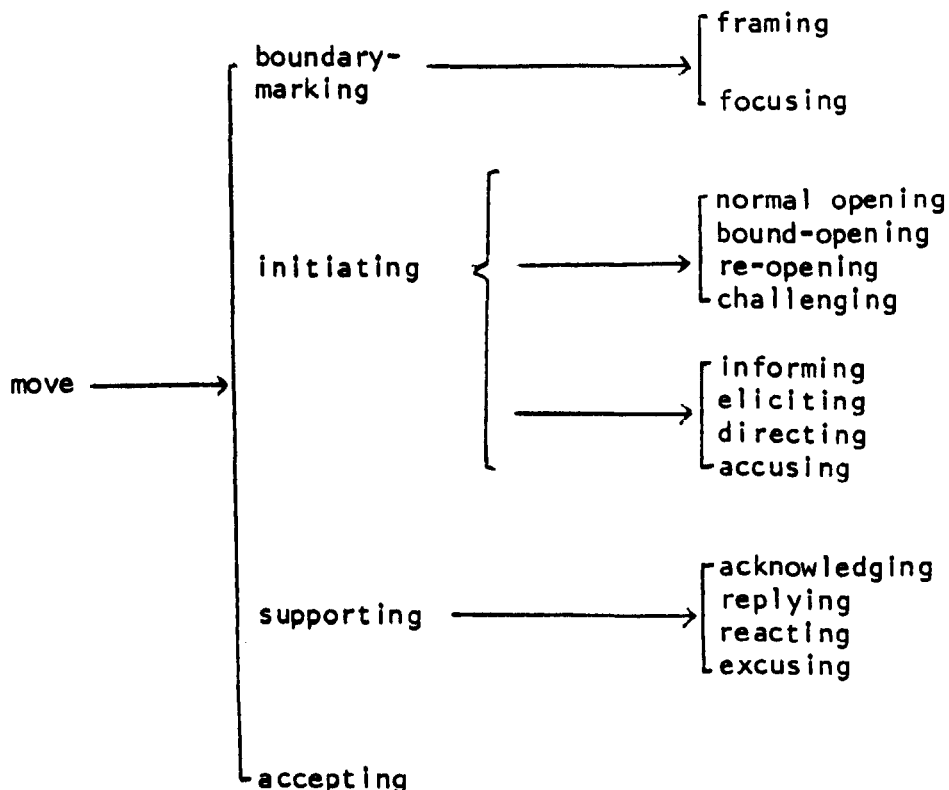
We also group together normal opening, bound-opening, re-opening and challenging moves as [initiating], since, as we shall see below, these moves all need to be cross-classified along a further dimension.

We come now to a suggestion for remedying a defect in both Sinclair & Coulthard's and Burton's accounts of discourse patterning. Both accounts (Sinclair & Coulthard 1975: 36, Burton 1980: 149) recognise that there is an appropriate and expected pairing between the class of initiatory acts in a topic-carrying move and the class of act serving as a response in the addressee's next move. For instance, if Speaker A produces an elicitation as the 'head' of his opening move, the appropriate response in a supporting move from Speaker B will be a reply as the central act. Similar pairs are: informative/acknowledge, directive/react, accuse/excuse. The 'rules' postulated by Sinclair & Coulthard and by Burton, however, make no provision for the formal statement of these pairing relationships. For example, in specifying the possible structures of supporting moves, Burton (p. 155) states that the 'head' act can be acknowledge, reply, react or excuse; but she does not show formally that this is not a free choice, but is determined by the nature of the 'head' act in the preceding opening move. This difficulty can be overcome by cross-classifying initiating moves as informing, eliciting, directing or accusing, and supporting moves as acknowledging, replying, reacting or excusing, then showing in the realisation rules that each class of initiating move may (optionally) have a particular class of supporting move as its sister within exchange structure. It should also be noted that this proposal allows for the classification of moves, as well as acts, in such a way as to reflect their function in informing, directing, etc., as in Coulthard's scheme (Coulthard 1975; see also §4.6).

A further difficulty with Burton's proposals must also be mentioned here. She points out that an explicit boundary exchange must contain not only one or both of Frame and Focus, but also a response move (which may have zero realisation - i.e. non-hostile silence; see Example 6.2), which signals that the first speaker's attempts to introduce a topic are being accepted. Burton treats these response moves as normal supports, indistinguishable structurally from those which follow initiating moves. The structural possibilities of response to boundary-marking moves are not, however, the same as those of responses to initiating moves. Obviously, they occupy different positions in discourse sequence; they are also different in their own competence, since 'accept' (see §6.2.4 below) is the central, obligatory act in the response to a boundary-marking move (in Burton's terms, it must act as the 'head' of the move), but is an optional ('pre-head') act in the support for an initiating move. Burton herself is inconsistent on this point: she claims (p. 145) that 'accept' is the head of a supporting move following a boundary marker, yet in the more formal description (p. 155) 'accept' is not allowed to occupy this structural slot, being only a 'pre-head' element to a head realised by an acknowledge, reply, react or excuse. Since, in any case, none of these four acts can occur in the response to a boundary-marking move, Burton's collapsing of this type of response move with normal supporting moves is clearly wrong. The solution is to recognise a separate class of move, which we shall label [accepting], and which offers structural possibilities distinct from those of normal supporting moves. Accepting moves will have 'accept'

as an obligatory daughter act.

The classification of moves arrived at in the course of the above arguments is presented in network form below.



6.2.4 The classification of acts

Burton mentions 20 classes of act, of which 19 are listed in the summary giving functional definitions and realisations (pp. 156-9). The act not included in this list is 'clue', which does not actually appear in Burton's data. The functional definition of clue given by Sinclair & Coulthard (1975: 41) makes it sound very much a classroom-oriented act:

... functions by providing additional information which allows the pupil to answer the elicitation or comply with the directive.

It is perhaps not too surprising that there were no exponents of this act class in Burton's data, and we shall ignore it

here, though it could be built into the description if later textual work showed that this was necessary.

This leaves us with 19 acts, and the question which now arises is whether we can justify any grouping of these acts into larger classes. As before, we adopt two criteria in justifying such groupings: the need to refer to a grouping in order to achieve maximal economy in the realisation rules; and similarity of function between members. Here, we postulate six such groupings, all of which are needed in the realisation rules (see §6.3.3). The members of each group show functional similarities, as we shall now demonstrate.

First, let us consider the acts 'marker' and 'summons', which have the following functional definitions in Burton's work (p. 156):

- marker ... Its function is to mark boundaries in the discourse and to indicate that the speaker has a topic to introduce.
- summons ... Its function is to mark a boundary in the discourse, and to indicate that the producer of the item has a topic to introduce once he has gained the attention of the hearer.

Examples of marker are *Kow!* and *Oh* in Examples 6.1 and 6.2, respectively. Exponents of summons include the name of a participant, and mechanical devices such as door or telephone bells. These two classes of act are clearly related functionally, and we shall call them 'pre-topic' acts.

The functions of 'starter' and 'preface' acts are also similar. Burton's functional definitions (pp. 157-8) are:

- starter ... Its function is to provide information about, direct attention to, or thought towards an area, in order to make a correct response to the coming initiation more likely.

preface ... Its function is to show that a diverted topic is being re-introduced.

Two examples of 'starter', taken from Burton's data, are given in 6.5:

6.5	B: What about this?	starter
	Listen to this!	starter
	A man of 87 wanted to cross the road ...	informative

Closer examination of the examples of 'preface' given in Stubbs' (1974) work on committee talk, and discussed by Burton, suggests that certain types of preface (e.g. those introducing a personal viewpoint, such as 6.6 - 6.8 below) could in fact occur in normal opening moves as well as in those classes of move (bound-opening, re-opening) which re-introduce a topic. Stubbs (personal communication) confirms this view.

6.6 Personally I think we really ...

6.7 My real opinion is ...

6.8 I certainly don't ...

Thus, while Burton defines prefaces in terms of their function in re-opening a topic, and does not allow them to occur in normal opening moves, we shall provisionally regard them as optional constituents of all initiating moves. Since both starters and prefaces are still preparatory to the topic proper, we shall call them 'preparatory' acts.

Our third grouping of acts consists of 'metastatement' and 'conclusion'. These acts perform identical functions in relation to the succeeding or preceding discourse, as is made clear in the functional part of Burton's definitions (p. 157):

metastatement ... Its function is to make clear the structure of the immediately following discourse, and to indicate the speaker's wish for an extended turn.

conclusion ... can be seen as the complement to Meta-statement, in that its function is to make clear the structure of the immediately preceding discourse.

As an example of metastatement, we may take Gus's utterance of *I wanted to ask you something* in Example 6.2. There is no example of conclusion in the sample of data given in Burton's account, but the following, taken from Sinclair & Coulthard's data (1975: 70) on classroom interaction, illustrates clearly the summarising function of this act. At the end of a discussion on symbols, the teacher says:

6.9 So symbols really are extremely useful for us,
aren't they?

One can quite easily imagine a similar summarising act at the end of a discussion in casual conversation.

Next we have a class consisting of 'informative', 'elicitation', 'directive' and 'accusation'. These function to provide information, and to request a linguistic response, a non-linguistic response and an excuse or apology, respectively. An example of an informative was given in 6.5; typical elicitations are Gus's utterances in 6.4; as an example of a directive we may cite Ben's utterance in the following example:

6.10 B: Show it to me.

G: (Passes the envelope)

Although no utterances in Burton's quoted data are coded as accusations, there are some which could well receive such a coding. In 6.3, for example, Ben's second utterance, and

perhaps also his first, could be interpreted as accusations rather than as elicitations (the coding given by Burton). Informatives, elicitations, directives and accusations are functionally similar in that all carry the main topic of the exchange. We shall thus call them 'topic-bearing' acts.

Similarly, we can recognise a class consisting of 'acknowledge', 'reply', 'react' and 'excuse', which are similar in that they all act as responses to topic-bearing items. As we have seen, each of these is paired with a particular topic-bearing act: 'acknowledge' shows an understanding of an informative, 'reply' provides a response to an elicitation, 'react' to a directive, and 'excuse' to an accusation. An example of acknowledge, taken from Burton's data, is given in 6.11:

6.11 B: A child of 8 killed a cat. informative
 G: Get away. acknowledge

In 6.4, Ben's utterance *It could be any time* is an example of a reply. A react is realised by non-linguistic action, which may be deferred provided that the preceding directive has been accepted. This is what happens in response to Ben's directive in 6.10. If we interpret Ben's utterances in 6.3 as accusations, then Gus's replies will serve as examples of excuses. We shall label as 'responsive' the class of act consisting of acknowledge, reply, react and excuse.

The acts 'comment' and 'prompt' are also functionally related. Burton's definitions (pp. 158-9) are:

comment ... functions to expand, justify, provide additional information to a preceding informative or comment.
prompt ... Its function is to reinforce a preceding directive or elicitation.

In fact, Burton's data coding allows comments to reinforce elicitations and directives as well as informatives, as shown by the following examples.

- | | | | |
|------|----|---|------------------------|
| 6.12 | G: | He's laid on some very nice crockery this time.
I'll say that. | informative
comment |
| 6.13 | G: | You got any cigarettes?
I think I've run out. | elicitation
comment |
| 6.14 | B: | Well make the tea then
will you.
Time's getting on. | directive
comment |

Although no examples of prompt are given, Burton does state that this class of act is realised by a closed class of items such as *go on, hurry up, what are you waiting for?* Prompts thus have a much more specific function than comments. One can easily imagine that Ben's comment in 6.14 might have been replaced by a more specific prompt such as:

6.15 Come on, what are you waiting for?

Despite the difference in specificity, both comment and prompt serve to reinforce a previous act, and we shall label them 'reinforcing'.

This leaves us with three act types, 'accept', 'evaluate' and 'silent stress', which do not appear to form part of any larger grouping of acts.

'Accept' is defined functionally by Burton (p. 158) as follows:

accept ... Its function is to indicate that the speaker has heard and understood the previous utterance and is compliant.

Burton claims (p.150) that although 'accept' is the expected response to a summons or metastatement in a boundary move,

the appropriate response to a marker is 'acknowledge'. This would appear to be an arbitrary decision, and is in any case inconsistent with Burton's definition of acknowledge (p. 158), which specifically restricts it to following informatives. Here, we shall regard any act which signals the speaker's willingness to proceed with the discourse as an accept, whether it is a response to a pre-topic act (of any kind) in a boundary-marking move or to a topic-bearing act in an initiating move. An example of an accept in a boundary exchange is Gus's utterance in 6.1; the functioning of accept in a supporting move following an initiation can be seen if we imagine that in 6.10 Gus had said *OK* as he passed the envelope.

The class labelled 'evaluate' is included in Burton's list and exemplified in the data, but is neither discussed nor incorporated into the formal description of structures. Its function is defined by Burton (p. 159) as follows:

evaluate ... Its function is to comment on the appropriateness of a preceding utterance.

The example in Burton's data makes it clear that evaluate can act as 'pre-head' in a supporting move:

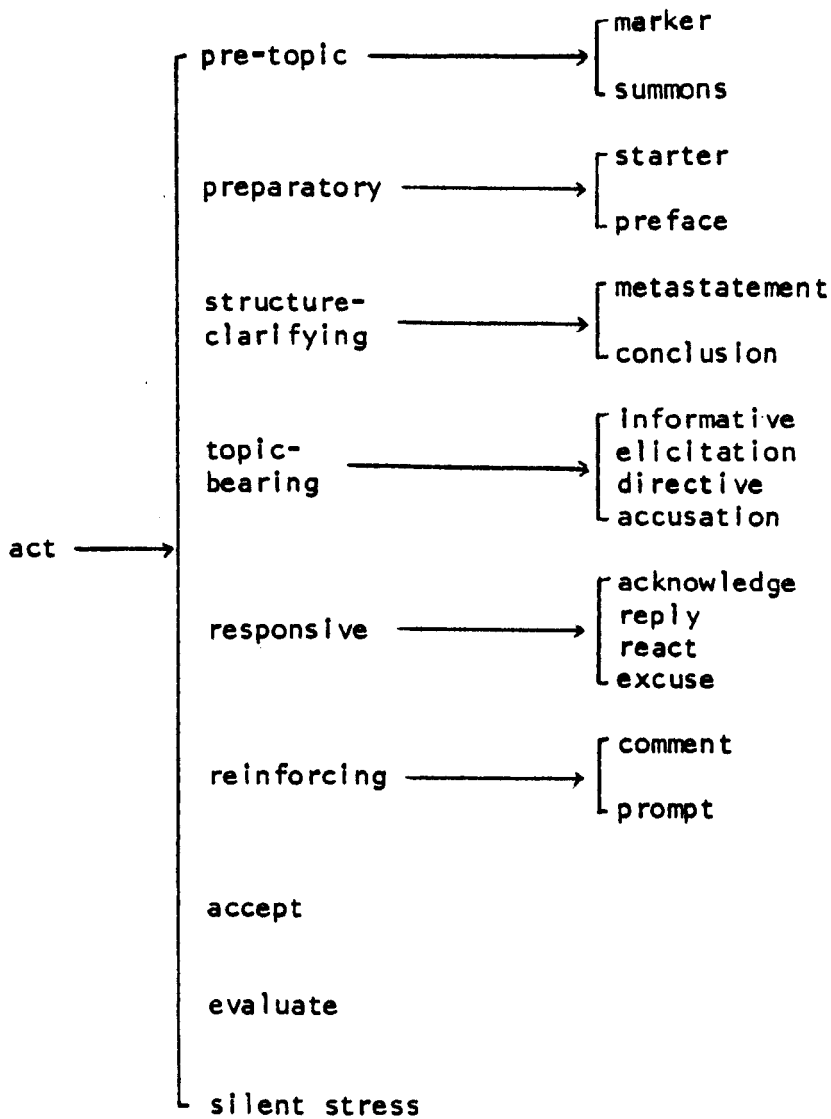
6.16	G: I bet he did it.	informative
	B: Who?	elicitation
	G: The brother.	restating comment
	B: I think you're right. What about that eh? ...	evaluate acknowledge

Comparison with Sinclair & Coulthard's analysis (1975: 27) suggests that evaluate can co-occur with accept: the accept registers the speaker's willingness to proceed on the basis

of what has been said, and the evaluate then makes a comment on the appropriateness of what has been said. We shall therefore regard both accept and evaluate as optional daughters of supporting moves.

The final act type, 'silent stress', is rather different from the others, in that it is always negatively realised. It serves to highlight a marker or summons in a boundary-marking move. An example is the pause after *Kaw!* in 6.1.

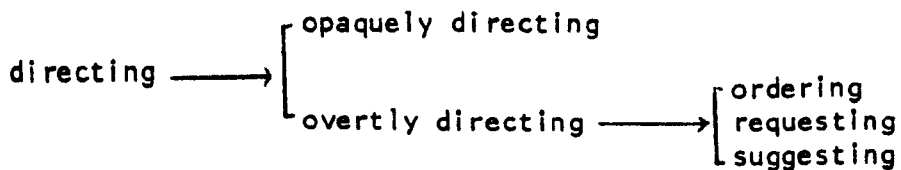
Our classification of acts is summarised in the form of a network below.



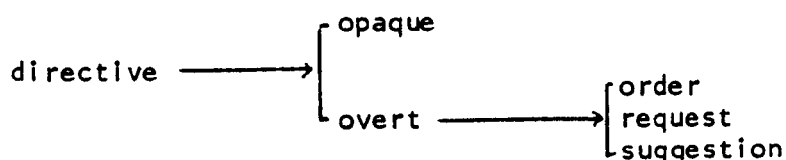
6.2.5 Directives and the classification of discourse items

So far, we have shown the relationship between directives and other kinds of discourse item. [Directive] itself is a subclass of act, and a member of the less delicate subclass labelled [topic-bearing]. Within this subclass, it contrasts with [informative], [elicitation] and [accusation]. Directive acts function as the heads of directing moves, in which, as we shall see, they may be accompanied by other acts performing subsidiary functions. Directing moves contrast with informing, eliciting and accusing moves, within the larger class of move labelled [initiating]. Directing moves, like other initiating moves, can act as components of conversational exchanges, in which they may be responded to by a supporting move.

In §4.6, we argued that moves of the [directing] class should be subclassified as opaque or overt, and the overt type further subclassified as orders, requests or suggestions, since we can recognise structural effects on the supporting move which can act as sister within an exchange. We therefore set up a subnetwork as follows:



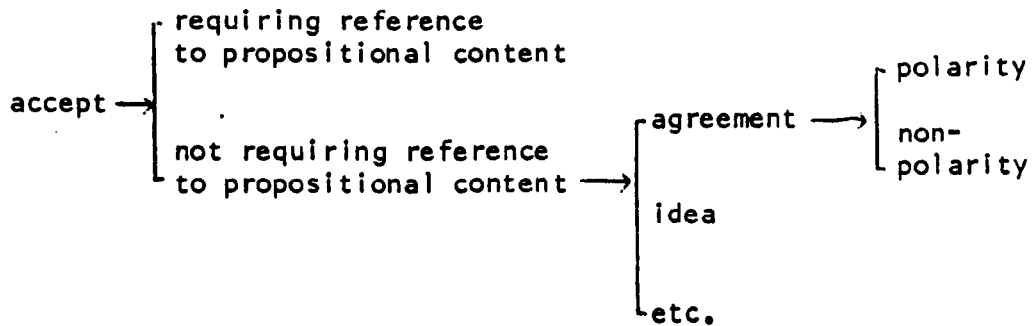
We also argued that since a directing move can contain non-directive as well as directive acts, and since its type of directiveness (opaque/overt, ordering/requesting/suggesting) is carried by the nature of the head act, we need to subclassify directive acts in a parallel way:



In order to specify, in the realisation rules, the effects of the choice of directive type on the possible range of [accept] acts in a following supporting move, we must also subclassify these [accept] acts. No doubt a more delicate classification is also required for those [accept] acts which are sisters of acts other than [react], but here we shall discuss only those which are part of responses to directing moves. Table 4.2 gives three types of [accept] as criterial for distinguishing subclasses of directing move: *OK/Sure/All right*, *Yes*, and *That's a good (etc.) idea*. We shall need to refer to the first two together in the realisation rules, since either is appropriate in response to a requesting move; furthermore, they seem to be more closely related to each other, in terms of overt 'agreement', than either is to the third type. We shall therefore use the cover feature [agreement] to refer to the first two types, and, for want of a better term, [idea] for the third. Within [agreement], we distinguish more delicately between [polarity] (realised as *Yes*) and [non-polarity] (*OK, Sure, All right*).

We also saw that none of the above types of [accept] is, of itself, adequate in a response to an opaquely directing move, which requires an explicit reference to the propositional content of the directive which is indirectly conveyed.

We thus subclassify [accept] as follows, 'etc.' covering other possible subclasses needed in responses to non-directing moves.



The realisation rules (see §6.3.4) will have to ensure that the right subclass of [accept] gets paired with each subclass of directing move.

6.3 From system to structure at the discourse level

6.3.1 Discourse structures and realisation rules

We must now specify the permissible structures at the discourse level, and the dependency and sequence rules needed to generate these structures from feature specifications. With the modifications already discussed, the structures generated are those permitted by Burton's scheme. The concept of structure used here is, of course, somewhat different from Burton's, since the latter is based on the Hallidayan concept of 'elements of structure' which can be realised by particular classes of item, while our daughter dependency treatment simply has nodes in the structural tree, labelled with feature specifications. As noted in §5.5, we shall require three types of realisation rule: daughter dependency, sister dependency and sequence rules. The criteria for the use of daughter and

sister dependency rules were discussed in §5.3.1.. In our discussion, we shall start at the 'top' end of the scale of discourse units, and work 'downwards'. The rules are presented as a complete set, arranged according to type, in Appendix A.

6.3.2 The structure of exchanges

Burton's structure for explicit boundary exchanges (p. 154) is:

(Fr)(Fo) S

where the overlapping brackets indicate that either Frame or Focus or both can be present. In Burton's model, Frame is realised by a framing move, Focus by a focusing move, and S by a supporting move. We argued in §6.2.3 that the class of move acting as a response to a frame or focus is not, in fact, the normal [supporting] class, but a separate [accepting] class. Since framing, focusing and accepting moves occur only in boundary exchanges (i.e. the properties of these daughters are determined by those of the mother exchange), we introduce them by means of daughter dependency rules:

DD1 optional explicit boundary \longrightarrow framing
DD2 explicit boundary \longrightarrow focusing
 (optional if DD1 has been applied, otherwise obligatory)
DD3 explicit boundary \longrightarrow accepting

The sequence relations are encapsulated in the following sequence rule:

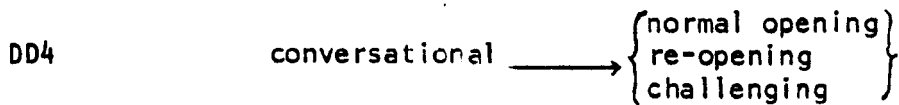
S1 framing \supseteq focusing \supseteq accepting
where the symbol \supseteq means 'precedes'.

We turn now to conversational exchanges, for which Burton postulates a rather complex structure involving the possibility of recursion:

$$I(R(I^r(R)^n)^n)^n$$

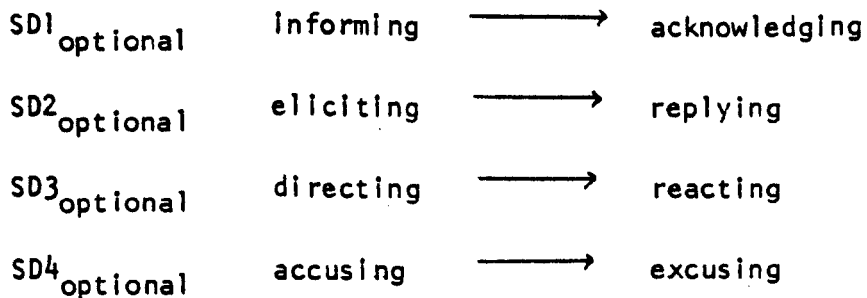
There is an obligatory I element realised by an opening, re-opening or challenging move. This may (optionally) be followed by one or more supporting moves realising the R element(s). A bound-opening move realising I^r may then follow, and may in turn be further supported.

The obligatory daughter of a conversational exchange may be introduced by means of the following daughter dependency rule:



The braces here indicate that any one of the listed alternatives may be chosen.

The supporting move which may follow an initiating move is introduced by sister dependency rules, since, as we have seen, the class of supporting move depends on the class of initiating move which precedes it, rather than on the class of exchange which acts as mother. The relevant rules are:



These rules may apply several times to the same initiating move.

The optional bound-opening move is introduced by a sister dependency rule:

SD5_{optional} supporting \longrightarrow bound-opening

Note that there is no possibility of introducing this constituent by means of a daughter dependency rule, since the bound-opening move can be present only if there is a supporting move as sister. That is, exchanges having (in Burton's terms) the structure $| |^r \dots$ are ill-formed, but would be generated by a daughter dependency rule operating on the feature [conversational]. Recursive support for the bound-opening move can be formalised by the following rule, which forms a closed loop with SD5:

SD6_{optional} bound-opening \longrightarrow supporting

The sequence of sister moves in a conversational exchange is given by the following sequence rules:

S2 $\left\{ \begin{array}{l} \text{normal opening} \\ \text{challenging} \\ \text{re-opening} \end{array} \right\} \supseteq$ supporting

S3 supporting_{SD1-4} \supseteq bound-opening \supseteq supporting_{SD6}

The first rule here states that initiating moves other than bound-openings precede their supports. In the second rule, we need to distinguish between those supporting moves introduced as sisters to initiating moves by SD1-4, and those supports which arise by SD6 as sisters of bound-openings, and which must follow these bound-openings. The distinction is conveniently made by subscripting the feature [supporting] with the number of the rule in which it is mentioned. We shall see

in Chapter 8 that this type of subscripting is also needed in the semantics.

6.3.3 The structure of moves

We deal first with the structure of boundary-marking (framing and focusing) moves. Burton's structure for framing moves, and the classes of act which realise the elements of structure (p. 154) are shown below.

h	q
marker <u>or</u> summons	silent stress

The relevant rules in our grammar are:

- DD5 framing \longrightarrow pre-topic
- DD6 framing \longrightarrow silent stress

Note that [pre-topic] is the head of its move, and so is introduced by a daughter dependency rule, and that [silent stress] is introduced as a daughter of [framing] rather than as a sister to the pre-topic act because, as we shall see below, pre-topic acts occur without a silent stress in focusing moves.

Burton's structure for focusing moves (p. 155) is as follows:

(s)	(pre-h)	h	(post-h)
marker <u>or</u> summons	starter	metastatement <u>or</u> conclusion	comment

As usual, the brackets indicate optional elements. We introduce the head act (metastatement or conclusion, neither of which occurs elsewhere) by means of the following rule:

- DD7 focusing \longrightarrow structure-clarifying

The optional pre-topic, starter and comment acts are introduced as sisters of [structure-clarifying], rather than as daughters of [focusing]. They do not fulfil the criteria for daughter dependency rules: they are not heads, their presence is not specifically dependent on having [focusing] as mother, since [pre-topic] occurs also in framing moves, [starter] and [comment] in normal, bound and re-opening and in challenging moves, [comment] also in supporting moves [structure-clarifying] does not occur elsewhere, so there is no situation where we must have this feature without an optional sister. Furthermore, the use of a sister dependency rule has the advantage of showing explicitly the subordinate relationship of these acts to the head.

SD7_{optional} focusing → pre-topic

SD8_{optional} focusing → starter

SD9_{optional} focusing → comment

We now turn to initiating moves. According to Burton (pp. 155-6), challenging, bound opening and re-opening moves have the same range of structures:

(pre-h)	h	(post-h)
starter <u>or</u> preface	informative <u>or</u> elicitation <u>or</u> directive <u>or</u> accusation	comment <u>or</u> prompt

Normal opening moves have the same structure, except that they also have an optional initial 'Signal' element, which can be realised as a marker or summons. Burton also states that a clue can act as an alternative to a comment or prompt at post-head for a normal opening move. As explained in §6.2.4, clue

is not included in our list of acts. Further, Burton excludes prefaces as alternatives to starters at pre-head in a normal opening move: we saw earlier, however, that prefaces can indeed occur here.

The class of act functioning as head depends on the class of initiating move concerned, as shown below.

DD8	informing	→	informative
DD9	eliciting	→	elicitation
DD10	directing	→	directive
DD11	accusing	→	accusation

Any of the topic-bearing acts introduced by DD8-11 can be accompanied by a preparatory act (starter or preface) and/or by a reinforcing act (comment or prompt). Since there is no other class of move where there is a choice of starter or preface (although, as we have seen, focusing moves can have starters), we introduce [preparatory] by a daughter dependency rule dependent on [initiating], rather than as a sister of [topic-bearing]. Similarly, although focusing, supporting and accepting moves can also contain comments, there is no class of move, other than [initiating], which can have either comment or prompt, so that again we introduce the covering [reinforcing] feature by a daughter dependency rule.

DD12 _{optional}	initiating	→	preparatory
DD13 _{optional}	initiating	→	reinforcing

The optional pre-topic act (marker or summons) in a normal opening move cannot be introduced as a sister of the topic-bearing head, since, as we have seen, topic-bearing acts occur with no marker or summons in other types of initiating move.

We therefore introduce the pre-topic constituent of normal openings by a daughter dependency rule.

DD14_{optional} normal opening \longrightarrow pre-topic

Let us now consider supporting moves. According to Burton (p. 155), these have the following structure:

(pre-h)	h	(post-h)
accept	acknowledge <u>or</u>	comment
	reply <u>or</u>	
	react <u>or</u>	
	excuse	

However, we argued in §6.2.4 that [evaluate] can also co-occur with [accept] in supporting moves. The obligatory head act, whose classification is determined by that of the mother, is introduced by a daughter dependency rule:

DD15 acknowledging \longrightarrow acknowledge

DD16 replying \longrightarrow reply

DD17 reacting \longrightarrow react

DD18 excusing \longrightarrow excuse

Since [accept] is not the head of a supporting move, and can also occur in accepting moves (where it does act as head), and since the responsive head act of a supporting move cannot occur elsewhere, our criteria determine the use of a sister dependency rule here, reflecting the dependence of [accept] on the head.

SD10_{optional} responsive \longrightarrow accept

[Evaluate] occurs only in supporting moves, and is therefore introduced as follows:

DD19_{optional} supporting \longrightarrow evaluate

[Comment], however, is not specific to supporting moves, and is introduced by a sister-dependency rule:

SD11_{optional} responsive \longrightarrow comment

Finally, we consider accepting moves, which contain [accept] as head (introduced by a daughter-dependency rule), accompanied optionally by a comment as post-head:

DD20 accepting \longrightarrow accept

SD12_{optional} accept \longrightarrow comment

It will be noted that we now have three sister dependency rules (SD9, 11 and 12) which introduce [comment] as an optional sister. We can collapse these to give a single new rule to replace the old SD9:

SD9_{optional} { structure-clarifying
 responsive
 accept } \longrightarrow comment

Note that the braces must be read as 'one or more of', since otherwise [comment] could be introduced twice in a supporting move, once as sister of [responsive] and again as a sister of an [accept] previously introduced by SD10.

As a final stage in generating the structures, we must specify the sequence in which classes of acts can occur in moves. The following sequence rule gives the correct ordering for all the structures discussed in this section:

S4 pre-topic \Rightarrow { preparatory
 accept
 silent
 stress } \Rightarrow evaluate \Rightarrow { structure-clarifying
 topic-bearing
 responsive }

\Rightarrow reinforcing

This is, of course, a maximally condensed version of a number of separate sequence rules relating to particular classes of move. The 'choices' bracketed together in the rule are not free choices, in the sense that not all the possible structures predicted by the rule, taken in isolation, are well-formed. However, by the time this rule is reached in the realisation process, only one (if any) of the act classes in each set of brackets will be present for sequencing.

6.3.4 Directives in discourse structure

We are now in a position to expand on the remarks made in §6.2.5 about the contribution of directives to the organisation of discourse. Directive acts are the obligatory constituent of directing moves, in which they are optionally preceded by a preparatory act (starter or preface) and/or followed by a reinforcing act (comment or prompt). Directing moves (in common with other classes of initiating move) serve as the initiating component of conversational exchanges. They may be followed by a supporting move of the 'reacting' sub-class, and the issuer of the directive may then offer a further opening, bound to the previous one, which may in turn be supported by the other discourse participant. This structure of bound-opening plus support is recursive, giving the possibility of quite complex conversational exchanges.

The more delicate subclassification of directing moves discussed in §6.2.5 also requires the replacement of our present DD10 by a set of daughter dependency rules, each introducing a more specific subclass of directive act:

DD10a	opaquely directing	→	opaque
DD10b	ordering	→	order
DD10c	requesting	→	request
DD10d	suggesting	→	suggestion

We must also ensure that each subclass of directing move is paired with a supporting move containing the correct subclass of [accept]. It would be possible to subclassify supporting moves according to the subclass of [accept] they contain. However, since [accept] is an optional constituent of supporting moves, we should have to postulate an initial subclassification of such moves as [\pm acceptance], and then state that any given subclass of directing move could be accompanied either by a [- acceptance] support or by a [+ acceptance] support of a particular more delicate subclass. What we really need here is a set of rules which optionally introduce the correct sister for the head responsive act. This can be achieved by the use of context-sensitive sister dependency rules, replacing our old SD10:

SD10a _{optional}	responsive	→	requiring reference to propositional content	/	[directing _{SD3} opaquely directing]
SD10b _{optional}	responsive	→	non-polarity	/	[directing _{SD3} ordering _{SD3}]
SD10c _{optional}	responsive	→	agreement	/	[directing _{SD3} requesting _{SD3}]
SD10d _{optional}	responsive	→	not requiring reference to propositional content	/	[directing _{SD3} suggesting _{SD3}]

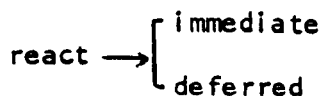
Here, the notation for the context is to be read as 'if the [directing] mentioned in rule SD3 is also marked as [opaquely directing]', and so on.

There is one further problem peculiar to the area of directive function which is not dealt with by the rules presented so far. As was mentioned in §6.2.4, the non-linguistic action which realises [react] can be deferred: indeed, it must be if the directive requests non-immediate action, as in the following example:

6.17 A. Will you go to the grocer's for me tomorrow?

B. OK.

If the non-linguistic action is deferred, then the accept act is no longer optional, as it is when the action is performed immediately. We can build this into our formal rules by recognising a more delicate system dependent on [react]:



and then amending each of SD10a-d so that the introduction of the appropriate subclass of [accept] is obligatory if [deferred] is chosen, but optional otherwise.

6.3.5 An example derivation

In order to illustrate the operation of the generative apparatus discussed in this chapter, and particularly that part of it concerned with directives, we shall conclude with a complete derivation of discourse structure for the following two exchanges (the structure of the transaction will not be dealt with):

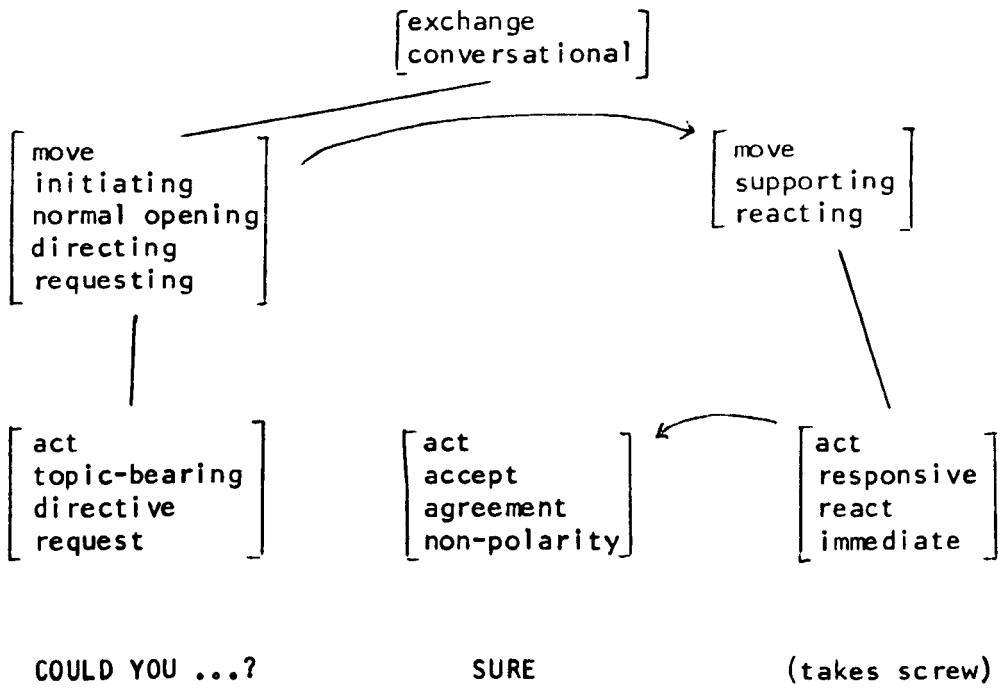
6.18	Mike:	John.	}	Exchange 1
	John:	Yeah?		
	Mike:	Could you just hold this screw for me a minute?	}	Exchange 2
	John:	Sure. (takes screw)		

Exchange 1 selects from the discourse network the features [exchange, explicit boundary]. Rule DD1 gives [framing] as a daughter. Consultation of the sub-network for moves tells us that this must also have the features [move, boundary-marking]. Rule DD3 gives [accepting] as a further daughter, with the less delicate feature [move]. No sister dependency rules apply.

The structures of the daughter moves in Exchange 1 can now be specified. For the framing move DD5 gives [pre-topic] as a daughter, with the less delicate feature [act], and we select [summons] as a free choice from the act sub-network. DD6 gives [silent stress] (again [act] by a less delicate option) as a daughter of the framing move. No sister dependency rules are applicable. For the accepting move, DD20 gives [accept] (thus also [act]) as a daughter. Again, no sister dependency rules apply.

Sequence rule S1 states that the framing move must precede the accepting move, and S4 places the pre-topic act [summons] before the [silent stress] in the framing move. We now have a complete structure for the first exchange, as shown overleaf.

The second exchange selects the features [exchange, conversational]. DD4 gives [normal opening] as a daughter, with the less delicate features [move, initiating]. We add the features [directing, requesting] by free choice from the initiating move sub-network. SD3 gives [reacting] (hence also



7: SEMANTIC FORCE

7.1 Introduction

The aim of this chapter and the next is to provide an account of those semantic properties of sentences which are crucially involved in specifying the meanings of modalised directives. Not only is this an important task in its own right: it will also allow us, in Chapter 9, to make predictions regarding the social properties of such directives.

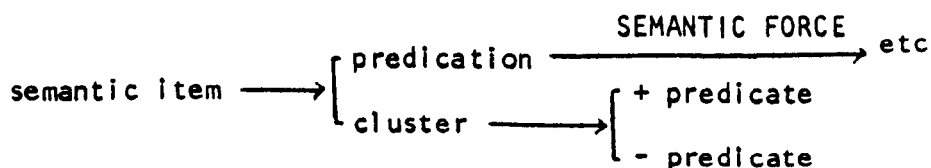
In the present chapter we shall investigate the semantic properties underlying syntactic mood categories, under the heading (borrowed from Hudson 1975) of 'semantic force'. We argued in Chapter 3 for a 'surface meaning' account of these properties, and shall indeed take Hudson's proposals (outlined in §3.5.3) as a basis. The account offered here will, however, considerably refine and extend these proposals, and will present a formalised description based on the model discussed in Chapter 5.

We first note that semantic force categories are classes of predication. The problem of force in dependent, embedded predications is addressed briefly. The semantic force types 'statement', 'question' and 'exclamation' are then discussed, and particular attention given to the problem of semantic force in imperative sentences, an area which is of special concern to the present work, but which is not dealt with in any detail by Hudson. A further area of considerable relevance to the study of modalised directives, that of question tags, is also accorded substantial discussion, in which work by Hudson and

by Cattell (1973) is amplified and formalised. Some of the special problems raised by performative sentences are also noted. The realisation rules, specifying the contribution of semantic force choices to the generation of semantic structures, are then discussed, and finally the rules mapping semantic force on to syntactic mood, lexical choices and intonation are specified.

7.2 The place of semantic force in an overall semantic network

As pointed out by Leech (1969: 22, 252; 1974: 127-8), assertions, questions and commands¹ (and also, presumably, exclamations) are classes of predication. Semantic force options will thus be dependent on the choice of [predication] from least delicate part of the overall semantic network:



The problem arises as to whether semantic force options should be considered as specific to independent predications, or whether they are also available to embedded predications. Clearly, the embedded predications of examples such as the following could not be converted to embedded questions or commands, so that here there is no choice of semantic force:

7.1 I saw *that he had arrived*.

7.2 The man I saw was her father.

¹ 'Command' is, of course, a misleading term from our point of view (see discussion in Chapter 3).

It might seem, at first sight, that the existence of 'indirect' questions and commands, as in 7.3 and 7.4 below, might lead us to argue that certain types of embedded predication do select for semantic force.

7.3 He asked *whether John had arrived*.

7.4 He told John *to go away*.

We may note, however, that the underlying force of such embedded predications is always predictable from the semantics of the reporting predicate, just as it is in 7.1. Thus the semantic features common to verbs such as *say*, *report*, *announce* demand that the underlying force of the embedded predication be that of a statement, while the semantics of *ask*, *inquire*, etc. requires an embedded question, and *order*, *request*, etc. require an embedded predication referring to the performance of a future action by the addressee. Such dependencies could be stated quite easily within a daughter dependency framework of the kind we have proposed: the presence of certain semantic features on the predicate node of the main predication would determine the presence of particular semantic force features on a predication acting as a daughter of the main predication, embedded in 'objective' relation to the main predicate.

Since the area of indirect semantic force (in the sense implied above) is not of central concern in the present work, nothing further will be said about it here.

7.3 Basic semantic force options

As was noted in §3.5.3, Hudson (1975) has demonstrated underlying semantic categories which can be related to syntactic mood, and are based on Searlian sincerity conditions. The

force markers and definitions proposed by Hudson as underlying exclamative, declarative and interrogative moods are as follows:

- EXCLAMATION : the speaker is impressed by the degree to which a property defined in the proposition is present.
- STATEMENT : the speaker believes that the proposition is true.
- QUESTION : the speaker believes that the hearer knows as well as he himself does whether the proposition is true or false.

We may first observe that Hudson's account of the semantics of questions, with which his paper is largely concerned, differs in important ways from that frequently encountered in the speech act literature (see e.g. Katz & Postal 1964, Gordon & Lakoff 1971, Green 1973, Mohan 1974, Searle 1976), in which questions are analysed as a sub-class of requests, being specifically requests for information. Hudson's sincerity conditions contain no mention of the hearer being required to give an answer to a question; indeed, he issues a specific disclaimer of any such condition (p. 16). Convincing arguments against the analysis of questions as 'requests to tell' are given by Lyons (1977: 753 ff.), who doubts that in asking a question the speaker necessarily assumes that the hearer knows the answer and imposes on him an obligation to supply that answer. Lyons points out that if yes/no questions were a sub-class of requests, it might be expected that a negative answer would constitute a refusal to comply with the request, whereas in fact such an answer is taken as a reply to the question. Lyons also argues that it is not essential to the nature of questions that they should always require a response from the addressee. It is, for

example, possible to pose questions to which one knows there is no answer. Verschueren (1975: 362) also casts serious doubt on the analysis of questions as a type of request.

Also concerned with the semantics of questions is a further point which, though left implicit in Hudson's discussion, is important in that it bears on the realisation relationships between semantics and other levels. Consider a sentence such as:

7.5 Isn't John a good boss?

Since this is a polar interrogative, the sincerity condition on interrogatives must hold, according to Hudson's account, and the semantic structure must contain the force marker QUESTION. Since the proposition refers (by means of *good*) to a point on a scale, and since *n't* is present, the sentence could also be (semantically) an EXCLAMATION, if the speaker is impressed by the degree to which the quality of 'goodness' is present. Hudson calls such exclamations 'general exclamations', to differentiate them from 'special exclamations', which contain only the EXCLAMATION force marker. In the written mode, then, 7.5 is ambiguous as between a general exclamation and a straight question reading. The ambiguity is resolved in spoken English, however, by the stipulation that sentences with the force marker EXCLAMATION, whatever their surface form, must have falling intonation. Hudson (p. 15) notes this constraint, and interprets it in terms of incompatibility between the sincerity condition for EXCLAMATION and that for whatever semantic property, or set of properties, is realised by rising intonation. Hudson suggests that rising intonation indicates that the speaker defers to the hearer in respect of the truth of the proposition.

Since the use of an EXCLAMATION shows that the speaker is impressed by the degree of some quality referred to in the proposition, the utterer of an EXCLAMATION must believe the proposition to be true. EXCLAMATION is thus incompatible with rising intonation. The ambiguity of 7.5 in the written mode, and its disambiguation in the spoken mode, have been commented on here because Hudson fails to point out that intonation is sometimes the only formal reflex of semantic force.

We turn now to a major difficulty in Hudson's approach. We have seen that a major claim is that interrogative, exclamative and declarative moods each have a corresponding force marker, which is present in the semantic structure whenever that mood is used.¹ If this is a general pattern, then one would expect to find a force marker corresponding to the use of the imperative mood.

Although Hudson does not explicitly state a sincerity condition on imperatives, he does suggest, as a gloss on the meaning of command imperatives such as *Come here*, the condition that the speaker wants the proposition to be true. This works well enough for imperatives used to command. However, as Downes (1977: 77-8) has pointed out, there are many instances where an imperative is not used to command. Consider the following data:

7.6 Enjoy yourself.

7.7 Work hard and you'll pass your exams.

¹ This relationship is not, of course, entirely reciprocal since, as we have seen, 'general exclamations' have the EXCLAMATION force marker as well as the QUESTION marker, though they are interrogative, rather than exclamative, in mood.

7.8 Work hard and all you'll get is £20 a week.

7.9 Move and I'll shoot.

Intuitively, we might classify 7.6 as a wish. It can fairly be claimed that the speaker wants the proposition 'addressee (fut.) enjoy himself' to be true, though such uses differ from command uses in that the speaker wants the proposition to be true not for his own benefit but for that of the addressee. 7.7 seems to be a piece of advice, in which the imperative could be paraphrased by a conditional: *If you work hard....* Here, it is not obvious that the speaker necessarily wants the proposition 'addressee(s) (fut.) work hard' to be true, and again the action would be in the addressee's interests rather than the speaker's. In the case of 7.8 we have a statement of general truth, again paraphrasable by a conditional: *(Even) if you work hard....* Here, there is no question of the speaker necessarily wanting the addressee to work hard. The ultimate difficulty arises in examples such as 7.9, which are warnings or threats, and can again be paraphrased by means of a conditional clause, but in which the overall implication is that the speaker does not want the action expressed by the imperative to take place. Thus the sincerity condition suggested by Hudson for command imperatives does not cover all uses of the imperative mood. Furthermore, it is difficult to see how any sincerity condition could be formulated to cover all cases.

An attempt by Davies (1979: 19 ff.) to specify elements of meaning common to all uses of the imperative is rather more successful than Hudson's formulation, but nevertheless fails to account for cases such as 7.9. Davies proposes the following semantic properties for all imperatives:

- (i) The one envisaged as carrying out the action is the addressee.
- (ii) There are grounds for assuming that the addressee will not carry out the action without being at least encouraged to do so.
- (iii) Following from (ii); there are grounds for assuming that the action concerned is not being, and has not been, carried out at the time of utterance.
- (iv) There are grounds for assuming that the addressee is capable of carrying out the action: that it is possible for him to do so in the given circumstances.
- (v) The speaker has the right to decide whether or not the addressee carries out the action.
- (vi) The speaker has the right to tell the addressee his decision or wish concerning the latter's action.

These properties, which are basically a version of Searle's (1969) conditions on requesting, could be claimed to account for 7.6, and possibly even 7.7 and 7.8: however, for 7.9, (ii) breaks down. Davies might wish to claim that 7.9 does not contain an instance of the imperative construction: it does, however, fulfil all the conditions she specifies as characteristic of the surface grammar of imperatives.

A possible way out of this dilemma is suggested by Downes' (1977: 78) remarks on the use of the imperative. Downes claims that the various uses have in common only "the predication of a hypothetical act of a contextually specifiable subject", and that the uses to which this form is put are explicable in

pragmatic terms. In the context of our discussion of the difficulties inherent in Hudson's formulation, Downes' claim (for which he provides convincing evidence) might suggest that imperatives can be regarded as not encoding any specific relationship between the speaker and the proposition. They would be semantically neutral with respect to speaker-proposition relations, the constraint on their use being in terms not of sincerity conditions, but of propositional content conditions, viz. that the proposition must refer to a hypothetical future act of the addressee (including the bringing about of a state which is under the voluntary control of the addressee). It would then be left to rules of a Gricean kind to interpret a given instance of the imperative as a command, wish, threat or whatever, in conjunction with the participants' knowledge of the foregoing discourse structure.

Consider, for example, imperative commands of the type exemplified by:

7.10 Open the window.

According to the proposals made above, we have the proposition 'Addressee (fut.) open the window', but no overt clue as to the speaker's exact relationship to this proposition. The hearer will assume, under normal circumstances, that the speaker is obeying the Gricean Co-operative Principle. In particular, the hearer will assume that the utterance has some point, that it is relevant to the course of interaction. The most likely reason for the speaker to predicate some future act of the addressee is that he wants the act done and wants the addressee to do it. Thus, in the unmarked case, the hearer will interpret the imperative as a 'mand' of some kind.

Now consider again example 7.6, repeated below:

7.6 Enjoy yourself.

The proposition is 'Addressee (fut.) enjoy himself' and, we are proposing, the speaker's relationship to this proposition is not overtly encoded. As usual, we assume that the speaker is acting in accordance with the Co-operative Principle. Since the speaker would not (necessarily) benefit from the actualisation of the proposition, he has no reason to ask the addressee to actualise it for his (the speaker's) benefit. This makes a command interpretation unlikely. Similar arguments would rule out other interpretations, such as threats. The speaker's remark is, however, consistent with the interpretation that he wants the proposition to become true for the hearer's benefit. It is therefore probably to be taken as a wish, especially as the speaker is likely to be conforming to other conventions such as politeness.

Let us turn now to the rather more difficult case of imperatives conjoined to declaratives, as in 7.7, repeated below:

7.7 Work hard and you'll pass your exams.

A command interpretation of the imperative is made unlikely, as in 7.6, by the fact that actualisation of the proposition is more likely to benefit the hearer than the speaker. In attempting to interpret imperatives in this type of conjoined construction, we must explain two salient facts. Firstly, since there are two conjoined propositions, the hearer will assume that if the speaker is obeying the Co-operative Principle, he must intend some connection between the two propositions. Secondly, the order of the two clauses cannot

be changed without a change in meaning, as can that of some (though not all) conjoined declarative clauses:

7.11 *You'll pass your exams and work hard.¹

cf. 7.12 Jane washed the lettuce and Jim carved the ham.

7.13 Jim carved the ham and Jane washed the lettuce.

We must, if possible, find an explanation which accounts for these properties, and for those of sentences of the same general type, such as:

7.8 Work hard and all you'll get is £20 a week.

7.9 Move and I'll shoot.

The most reasonable explanation would seem to be that in all cases the act referred to in the second proposition is contingent on that referred to in the first proposition. This will account satisfactorily for the speaker's linking of the two propositions, and for their non-reversibility if meaning is to be preserved.

The exact interpretation of the imperative (as a threat, piece of advice, warning, etc.) depends on the nature of the act referred to in the conjoined declarative clause. The conjunction of certain types of speech act appears to be subject to a constraint which we may state informally as follows:

Given two conjoined speech acts, if one of these is relevant to the interests of the addressee, then the other must also concern the interests of the addressee,

¹ This sentence is, of course, interpretable as a prediction of two events; the asterisk is allocated to the sentence *qua* equivalent of 7.7.

and in the same direction (e.g. if the proposition of one of the speech acts is in the best interests of the addressee, then the proposition of the other must also be in his best interests, and not something which is against his interests).

The application of this constraint can be seen in the following examples:

7.14 I should get some medicine from the chemist and perhaps you ought to go to the doctor's too.

(advice + advice)

7.15 *I should get some medicine from the chemist and if you don't wrap up well you'll get pneumonia.

(advice + warning)

The same principle can be seen at work with other speech acts involving the hearer's interests, such as offers and promises. Consider the following:

7.16 You tell Susan about it and I'll tell Paul.

Out of context, this sentence is ambiguous. It could be construed as a suggestion (in a co-operative effort for the ultimate benefit of both participants) plus an offer. Alternatively it could be interpreted as a threat to tell Paul, if the addressee is unwise enough to tell Susan. These interpretations cannot, however, be crossed: that is, 7.16 cannot be construed as suggestion plus threat; furthermore, if the first clause is interpreted as (pragmatically) equivalent to 'if you are unwise enough to tell Susan about it', then the second cannot be interpreted as an offer. This is demonstrated by the fact that the second clause of 7.17 must be construed as a threat:

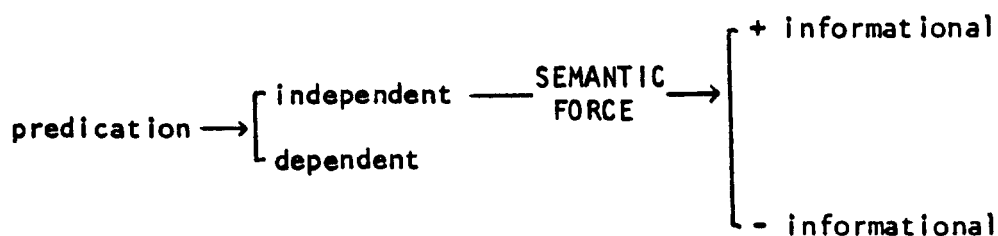
7.17 You tell Susan about it, if you dare, and I'll tell Paul.

After this somewhat lengthy discussion of the main difficulty in Hudson's proposals, we are now in a position to attempt the construction of a network for the basic semantic force options.

It was argued above that the semantic correlate of imperative syntax differs from the correlates of declarative and interrogative syntax in that while declaratives and interrogatives (and, indeed, exclamatives, which will be considered later) explicitly encode aspects of the speaker's relationship to the proposition, imperative clauses merely relate to a hypothetical future act of the addressee, without encoding any semantically specifiable relationship between speaker and proposition. This suggests a primary systemic distinction between predications which encode speaker-proposition relations and those which (semantically) do not.

Further support for this primary distinction comes from two closely related arguments. Firstly, predications which are encoded as non-imperatives are concerned, semantically, with the participants' knowledge of certain aspects of the propositional content. They are, in this sense, 'informational'. Imperatives, on the other hand, are, in this sense, 'non-informational', being concerned with action rather than with knowledge. Secondly, the 'knowledge' concerned in a non-imperative clause can relate to any kind of process/participant complex, whether, in traditional terms, the process is 'dynamic' or 'stative'. On the other hand, imperatives, by their very nature, are restricted to clauses encoding 'dynamic'

process types. This point will be taken up again in Chapter 8, where its relevance to modal semantics will be discussed. Here, we need only note that 'informational' and 'non-informational' predications have different process-type options available to them, so supporting the recognition of two primary semantic force categories, as shown below:



The terms of the [[±] informational] system may be glossed as follows:

[+ informational] : concerned with the participants' knowledge of some aspect(s), factual or attitudinal, of the proposition, or of information needed to complete the proposition.

[- informational] : concerned with the performance of a hypothetical future act (including the bringing about of a state under voluntary control) by the addressee.

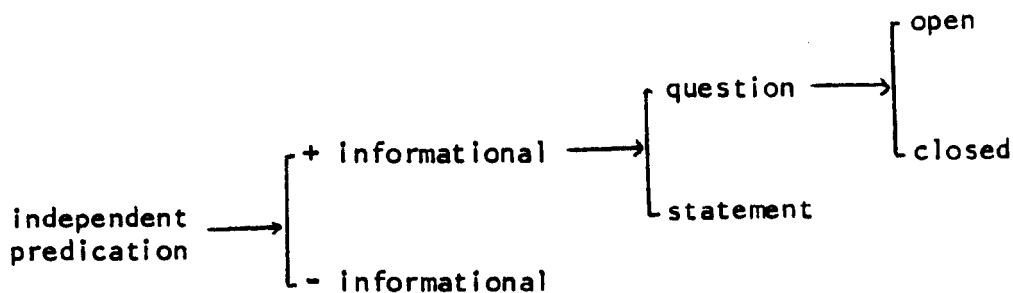
Within the informational class of predications, we may now go on to distinguish statements from questions. The following definitions are based on Hudson's, but include a rider concerned with sincerity, since, as seen above, not all our definitions of force terms take the form of conditions in which sincerity is assumed.

- [statement] : the speaker is explicitly encoding the fact that he believes (or is acting as if he believes) the proposition to be true, and believes he knows at least as well as the addressee that it is true.
- [question] : the speaker is explicitly encoding the fact that he believes (or is acting as if he believes) that the addressee knows at least as much as he himself does about the truth of the proposition, or about the value of the questioned variable which will make the proposition true.

The two halves of the disjunction in the definition of the question force term correspond to the two main semantic types of question: 'closed' questions in which it is the truth of the proposition as it stands which is at issue; and 'open' questions in which there is a questioned variable, the value of which is at issue. It is perhaps worth emphasising here that these semantic categories are not in exact one-to-one correspondence with syntactic mood categories. Although the unmarked realisation of the semantic term 'closed question' is the selection of a polar interrogative in the syntax, while the unmarked realisation of an 'open question' is a *wh*-interrogative, there is a marked realisation of the closed type as declarative mood plus rising intonation, conditioned by the operation of other attitudinal factors in the semantics (expectation of a positive rather than a negative answer, casualness - see Quirk *et al* 1972: 392-3)..

There are, of course, other semantically distinguishable sub-classes of questions, such as echo questions, alternative questions, etc., but since these are not of interest to our present concerns, they will not be discussed here.

The distinctions discussed so far are set out as a system network below.

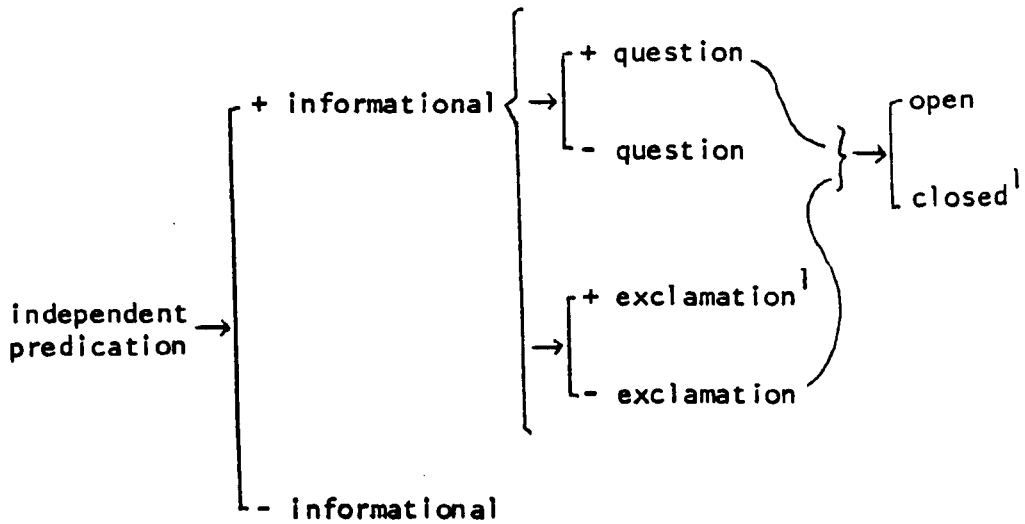


We now build into our account the semantics of exclamations, defined, after Hudson, as follows:

[+ exclamation] : the speaker is explicitly encoding the fact that he is impressed (or is acting as if he is impressed) by the degree to which a property defined in the proposition is present.

Exclamations, as we have seen, can be realised syntactically as exclamatives (in 'special exclamations') or as interrogatives (in 'general exclamations'). In the latter case, they also have the semantic feature [+ question], while in the former case they have only [+ exclamation]. Thus [+ question] can occur with or without [+ exclamation], and *vice versa*. We can show this, and also the 'closed' nature of the question meaning in general exclamations, by amending the previous network as follows.¹ Note that [statement] is no longer present as a contrast to [question] since an informational predication is a statement only if also [- exclamation].

¹ Numbers will be used as indices in the marking convention employed throughout these networks. The marker 1 in the network overleaf shows that predications with the features [+ question, + exclamation] are always [closed].



It may be useful at this point to give examples of each possible feature combination.

- | | | |
|------|-------------------------------|---|
| 7.18 | Have you made the tea? | [+ informational, + question,
- exclamation, closed] |
| 7.19 | Why haven't you made the tea? | [+ informational, + question,
- exclamation, open] |
| 7.20 | Isn't this tea strong! | [+ informational, + question,
+ exclamation, (closed)] |
| 7.21 | This tea is strong. | [+ informational, - question,
- exclamation] |
| 7.22 | What strong tea (this is)! | [+ informational, - question,
+ exclamation] |
| 7.23 | Make the tea. | [- informational] |

7.4 Question tags

Hudson's treatment of question tags is of considerable interest to the present work, since imperatives with modalised tags form an important class of directives. Hudson claims that tags, treated as reduced polar interrogatives, embody the same proposition as the clause to which they are attached, and behave semantically just like other polar interrogatives, in that they have the force marker QUESTION. The interpretation

of a (clause + tag) complex is then simply the union of the semantic properties of main and tag clauses.

Unfortunately, Hudson goes on to claim that 'once we have said in syntax that reduced interrogative clauses can be added towards the end of the clause on which they are modelled, there is no need to say anything more about them in the semantics' (p. 23). Within the context of the present approach, however, the selection of tags is seen as very much a semantic matter. In formulating a network of semantic force options, we are attempting to specify the choices available to the speaker in making explicit his orientation, *vis-à-vis* the addressee, towards a particular propositional content. The difference between a tagged and an untagged statement, for example, is that the tag modifies the bald statement force into something which is rather more addressee-oriented, being in some sense intermediate between a statement and a question. It is clearly appropriate, in our model, to regard such modifications as part of the speaker's range of semantic options in the area of participant-proposition relations.

More specific support for treating tag selection within the semantics is provided by part of the discussion in Hudson's paper itself. It is pointed out that tags on exclamationives must have a surface negative, as shown by the following examples:

7.24 (= Hudson's 71a) What a nice girl she is, isn't she.

7.25 (= Hudson's 73b) *What a nice girl she is, is she.
Hudson's explanation is that the tag here is a reduced form of the general exclamation *Isn't she a nice girl*, in which, he

proposes, the *n't* does not reflect an underlying negative, but is merely a realisation of the force marker EXCLAMATION, present obligatorily where this is combined with QUESTION. In support of this claim, Hudson points out that the surface negative, unlike that which realises a semantic negative, is obligatorily contracted, and that the non-assertive forms (*any, yet, etc.*) normally found in negative contexts are not found in general exclamations. Furthermore, he observes, since exclamative exclamations must be positive, postulation of a (semantically) non-negative *n't* in general exclamations (and in tags derived from them) allows us to generalise by saying that all exclamations, of whatever form, are basically positive. Hudson goes on to claim of tags on exclamatives that "far from being reversed-polarity tags, these are in fact constant-polarity tags" (p. 28). It is obvious that Hudson's argument here rests on a semantic rather than a syntactic interpretation of polarity phenomena. Indeed, we may say, more generally, that the co-occurrence relationships between main and tag components (in terms of both polarity and, as we shall see, intonation) are determined by the meanings underlying the syntactic and phonological realisations, so that a maximally explanatory description will be achieved if these restrictions are handled at the semantic level.

In the present writer's dialect, as in Hudson's, the main predication of a tagged complex can have any of the semantic forces discussed above, except [+ question]. As Hudson points out, tags can be added also to questions in some American dialects, and it seems that we can also find examples of this in some Australian speech (see Cattell 1973: 616). The following

examples of standardly permissible and non-permissible combinations are taken from Hudson's account:

7.26 (= Hudson's 56a) Caterpillars have legs, do they?

7.27 (= Hudson's 56b) Caterpillars have legs, don't they?

7.28 (= Hudson's 64a) Caterpillars don't have legs, do they?

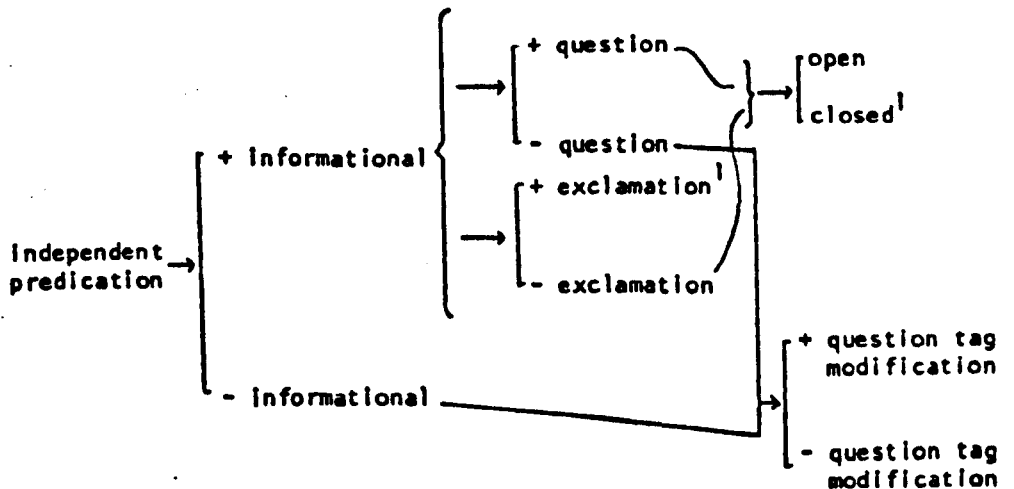
7.24 (= Hudson's 71a) What a nice girl she is, isn't she.

7.29 (= Hudson's 74a) Have some more, will you?

7.30 (= Hudson's 78a) *Did he go there, did he?

7.31 (= Hudson's 11a) *Isn't that a pretty dress, isn't it.

These restrictions on modification of the basic semantic force by question tagging can be captured by amendment of the semantic force network as follows:



As an explicit definition of what is meant by the label

'question tag modification' we have:

[+ question tag modification]: the speaker modifies his basic choice of semantic force by additionally specifying that he believes (or is acting as if he believes) that the addressee knows at least as well as he

does himself whether the proposition is true (or will be made true).

The various combinations involving tags will now be discussed in more detail, beginning with tagged statements. Consider the following example from Hudson's paper:

7.32 (= Hudson's 68) This coffee is for me, is it?

According to Hudson's account, the interpretation of such a sentence is arrived at in the following way. The statement is subject to the usual condition on declaratives, namely that the speaker believes the proposition to be true. The speaker is also, however, indicating (by means of the tag) that he believes the addressee knows as well as he does himself (and possibly better) whether or not the proposition is true. The tag can thus be seen as a check on the truth of the proposition.

As Hudson points out, this account also explains why tags on statements are conducive (i.e. expect the answer *Yes* rather than *No*, or *vice versa*). Since the speaker believes the proposition to be true, he cannot think that the answers *Yes* and *No* are equally likely. The type of conduciveness depends on the polarity of the main and tag components. The full paradigm is illustrated by the following examples from Hudson, three of which were given earlier:

7.26 (= Hudson's 56a) Caterpillars have legs, do they?

7.27 (= Hudson's 56b) Caterpillars have legs, don't they?

7.28 (= Hudson's 64a) Caterpillars don't have legs, do they?

7.33 (= Hudson's 63) Caterpillars don't have legs, don't they?

The symmetry here is disturbed somewhat by the fact that the 'negative statement plus negative tag' type, as in 7.33, is much rarer than the others (see Quirk *et al.* 1972: 392), for reasons which are by no means clear. Constant polarity tags such as that in 7.26 are always positively conducive, since, as Hudson points out, negative conduciveness would be inconsistent with the speaker's belief that the proposition is true (or, in the case of the not uncommon sarcastic use of such tags, his pretence of belief that the proposition is true). Reversed polarity tags, on the other hand, are negatively conducive. In 7.27, for instance, according to Hudson, the speaker is saying that he believes the proposition *Caterpillars have legs* to be true, then asking the addressee to consider whether he thinks the negative proposition *Caterpillars don't have legs* is really true, so implying that he himself believes this negative proposition to be false.

It is of interest to compare Hudson's explanation of constant and reversed polarity tags with that of Cattell (1973: 615), who claims that a constant polarity tag question "means that the host clause is not put forward as the point of view of the speaker, but as one that is possibly that of the listener". Such tag clauses could be used by a speaker "in any circumstances where he was in no position to promote his own opinion", while reversed polarity tags are used when the speaker can put forward the proposition as his own view. Such a proposal is not incompatible with Hudson's, since the utterer of a declarative can still believe the proposition to be true, whether or not he is putting it forward as a view originating from himself. Consider Cattell's example:

7.34 (= Cattell's 12a) The book is obscene, is it?

As Cattell points out, 7.34 could be used if the speaker had not read the book, or had read it but forgotten it. Presumably the conversation up to this point has led the speaker to conclude that his interlocutor considers the book obscene, so that the speaker himself now believes this is true, though he is not putting it forward as originally his own view.

As far as the interpretation of tagged exclamative exclamations is concerned, we have already noted Hudson's argument that the surface negative obligatorily present in the tag is a marker of the EXCLAMATION force, and not of an underlying semantic negative, so that semantically such tags can be regarded as of constant polarity.

We turn now to tags on clauses with imperative syntax, that is, clauses encoding predications which in our scheme are [- informational], such as:

7.35 (= Hudson's 77) Come here, will you.

Hudson interprets this example in terms of compatibility between his suggested sincerity condition for imperatives (that the speaker wants the proposition to be true) and that for the tag (that the speaker believes the hearer knows at least as well as he does whether the proposition will become true). As we have seen, Hudson's tentative semantic characterisation of the imperative is inadequate to cover all uses of this mood. If, however, we substitute our much weaker but more inclusive claim, that the imperative is concerned simply with a hypothetical future act of the hearer, then it is clear that such an interpretation is still compatible with the semantics of the tag, the hearer's superior (or at least equal) knowledge

of whether the proposition will become true presumably arising from his power of choice in deciding whether or not to make it true.

The restrictions on tagged imperatives are interesting and, it must be admitted, somewhat perplexing. First, we should note a problem not discussed by Hudson, namely that only certain uses of the imperative permit tags, as shown by the following data:

7.36 Pass me the salt, would you?

7.37 Come in, won't you?

7.38 Enjoy yourself, won't you?

7.39 *Work hard, won't you, and you'll pass your exams.

7.40 *Work hard, won't you, and all you'll get is £20
a week.

7.41 *Move, won't you, and I'll shoot.

Tags appear to be confined to those uses of the imperative where the speaker wants the proposition to be actualised, that is orders/requests (e.g. 7.36), invitations (e.g. 7.37) and wishes (e.g. 7.38). These three types of speech act are themselves increasingly restricted in the range of tags they can take: orders/requests seem to allow various modals in the tag (see also later discussion); invitations normally take only *will* or *won't*; imperative wishes appear to be restricted to *won't* in the tag. Just as we proposed that the interpretation of imperatives as particular types of communicative act is not to be regarded as a semantic matter (i.e. that it belongs to the area of mapping relations between the discourse level and the semantic level), so we also suggest that the co-occurrence of tags with speech act types is to be accounted

for in terms of these mapping relations. In particular, we may propose that the (semantic) choice of [- informational] force, and of a tag question with particular semantic properties, restricts the interpretation to a range of speech act types, or even to a single type. For instance, the combination of [- informational] semantic force and a tag question with the 'ability' modal *can* restricts the interpretation of the utterance to the order/request type, since tags of this kind do not occur in invitations, wishes or, of course, implicit conditions.

Since we are particularly concerned here with the order/request class of act, we shall take this as our canonical type for the purposes of the following discussion. As our paradigm examples, we shall take the following set:

- 7.42 Open the window, will you?
- 7.43 Open the window, won't you?
- 7.44 Don't open the window, will you?
- 7.45 *Don't open the window, won't you?

These examples (which are parallel to a set given by Hudson, involving an invitation imperative) show that both positive and negative commands can be followed by a positive tag with *will*, and that a positive command can be followed by the negative tag *won't you*, but that a negative tag is not possible if the command is negative. If we expand our range of examples to explore the possibility of other modals in the tag (an exercise which Hudson does not attempt) the situation becomes even more complicated. Consider the following:

7.46 Open the window, $\left\{ \begin{array}{l} \text{will} \\ \text{would} \\ \text{can} \\ \text{could} \end{array} \right\}$ you?

7.47 Don't open the window, will you?

7.48 *Don't open the window, $\left\{ \begin{array}{l} \text{would} \\ \text{can} \\ \text{could} \end{array} \right\}$ you?

It is not at all clear why tags on prohibitions should not only have to be positive, but also have to contain *will* rather than any of the other modals which are permissible with positive commands. Sadock (1974: 106) suggests that the ungrammaticality of negative tags on prohibitions is related to that of the corresponding whimperatives. Using the examples above, we have:

7.47 Don't open the window, will you?

7.49 Will you not open the window?

cf. 7.45 *Don't open the window, won't you?

7.50 *Won't you not open the window?

However, this argument fails if we consider other modals, since it would predict that as 7.51 is grammatical, 7.48 should be so too, whereas, as we have seen, it is not.

7.51 $\left\{ \begin{array}{l} \text{Would} \\ \text{Can} \\ \text{Could} \end{array} \right\}$ you not open the window?

7.48 *Don't open the window, $\left\{ \begin{array}{l} \text{would} \\ \text{can} \\ \text{could} \end{array} \right\}$ you?

It is interesting that the greater severity of restrictions on matching negative tags is also shown in tagged interrogatives in those dialects where these are grammatical. For Cattell (1973: 616), for example, 7.52 is grammatical, 7.53 not.

- 7.52 (= Cattell's 17b) Did John drink beer, did he?
7.53 (= Cattell's 20) *Didn't John drink beer, didn't
he?

A further source of complexity in dealing with question tags, touched on only briefly by Hudson, is their intonation. Consider the following data, based on examples used for illustration earlier:

- 7.54 Caterpillars have legs, don't they?
7.55 Caterpillars have legs, don't they?
7.56 *Caterpillars have legs, do they?
7.57 Caterpillars have legs, do they?
7.58 Caterpillars don't have legs, do they?
7.59 Caterpillars don't have legs, do they?
7.60 *Caterpillars don't have legs, don't they?
7.61 Caterpillars don't have legs, don't they?

7.62 What a nice girl she is, isn't she?
7.63 *What a nice girl she is, isn't she?

7.64 *Open the window, will you?
7.65 Open the window, will you?
7.66 Open the window, won't you?
7.67 Open the window, won't you?
7.68 *Open the window, can you?
7.69 Open the window, can you?
7.70 *Open the window, can't you?
7.71 Open the window, can't you?
7.72 Don't open the window, will you?
7.73 *Don't open the window, will you?

As we have seen, Hudson has suggested that rising intonation may show that the speaker defers to the hearer's opinion with respect to the truth of the proposition. This proposal will, in fact, explain certain aspects of the restrictions on tags. The impossibility of rising intonation on a tag attached to an exclamative (as in 7.63) would arise from incompatibility between the proposed semantic correlate of rising intonation and the meaning of an exclamative, namely that the speaker is sure of the truth of the proposition, being impressed by the degree of some quality expressed within it. We may also explain the difference in meaning between pairs such as 7.54 and 7.55, 7.58 and 7.59, which has been widely discussed in the standard grammars (see e.g. Quirk *et al.* 1972: 390 ff., Sinclair 1972: 75 ff.). Thus 7.55 can be taken to mean that the speaker believes that caterpillars have legs, but that he is deferring to the hearer for a final verdict on the matter; while 7.54, in view of the falling tag, does not defer to the hearer, and so expresses greater assurance on the speaker's part. Taking up Cattell's claims on tag interpretation, we can also account for the obligatory rising intonation of constant polarity tags, a phenomenon for which Hudson confesses he has no explanation. If, as Cattell suggests, such tags are used when the speaker is presenting a view which he deduces may be that of the hearer, rather than stating something purely on his own behalf, then we may expect the intonation pattern to be one which reflects deference to the hearer's opinion as to the truth of the proposition.

Tagged imperatives once again present considerable problems. The data presented above suggest that with positive

commands rising intonation on the tag is the norm, and that at least in some cases (e.g. with *can/can't* in the tag) falling intonation is not possible. With prohibitions, on the other hand, the opposite is true: only falling intonation is possible. It is by no means clear why this should be so. Maintaining our view of rising intonation as signalling the speaker's deferral to the hearer on the truth (or rather, in this case, actualisation) of a proposition such as *you will open the window*, it is not evident why the speaker should normally defer to the hearer's opinion when issuing a positive command, but not when issuing a prohibition. The situation is complicated even further by the fact that with *won't* (but with no other modal form) in the tag, falling intonation is sometimes possible if the imperative is positive (as in 7.66). Indeed, in some cases of imperatives with a *won't you* tag, falling intonation appears to be obligatory:

7.74 Be careful, [↘]won't you?

7.75 *Be careful, [↘]won't you?

Since the meaning of intonational choices is peripheral to our main concerns in this work, we shall not attempt to provide further answers in this area where other grammarians have admitted their own perplexity. We must, however, build into the semantic force network the restrictions on the semantic correlates of polarity and intonation discussed in the foregoing section.

Table 7.1 below shows the permissible combinations of main predication polarity, tag polarity and tag intonation, for exclamative exclamations, statements and non-informational (formally imperative) predications.

MOOD	SEMANTIC FORCE	SEMANTIC POLARITY OF MAIN PREDICATION	TAG			
			POS.		NEG.	
			↘	↗	↘	↗
exclamative	[+ exclamation, - question]	positive	yes	no	no	no
declarative	[- exclamation, - question]	positive	no	yes	yes	yes
		negative	yes	yes	no	yes
imperative	[- informational]	positive	no	yes	yes (won't only)	yes
		negative	yes (will only)	no	no	no

Table 7.1

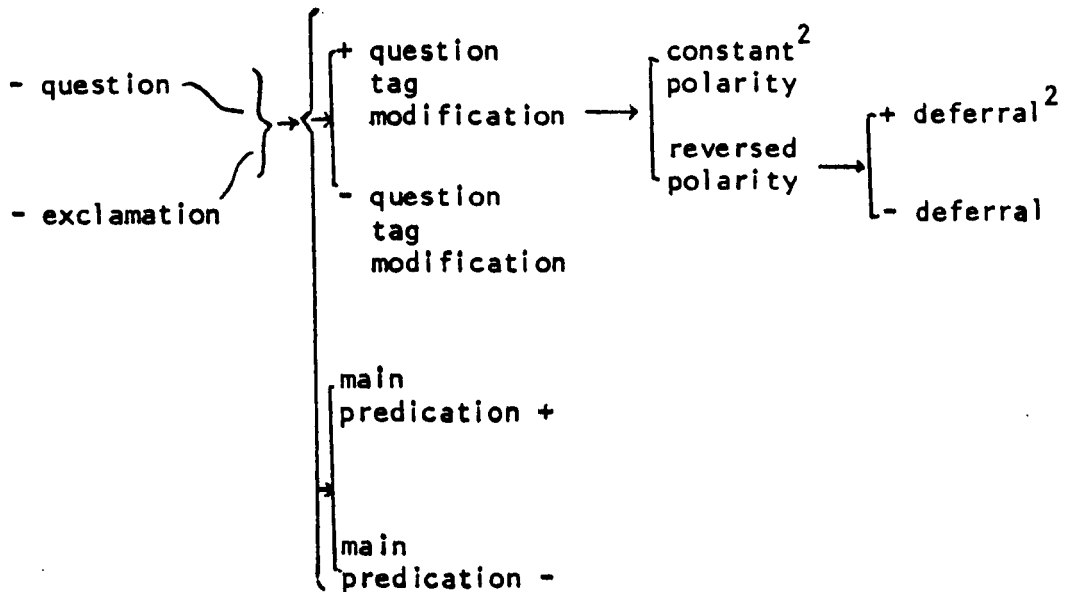
Question tags: polarity and intonation

For the sake of clarity, we shall develop a separate sub-network for each of the three types.

Exclamations of the [+ exclamation, - question] type are easily dealt with, since there is only one possibility for the semantics of the tag, viz. constant semantic polarity (despite the reversed surface syntactic polarity) and no deferral to the hearer's opinion. We therefore need to make no alteration to our previous network, except to note that any exclamation which does have tag modification will take on these particular semantic properties.

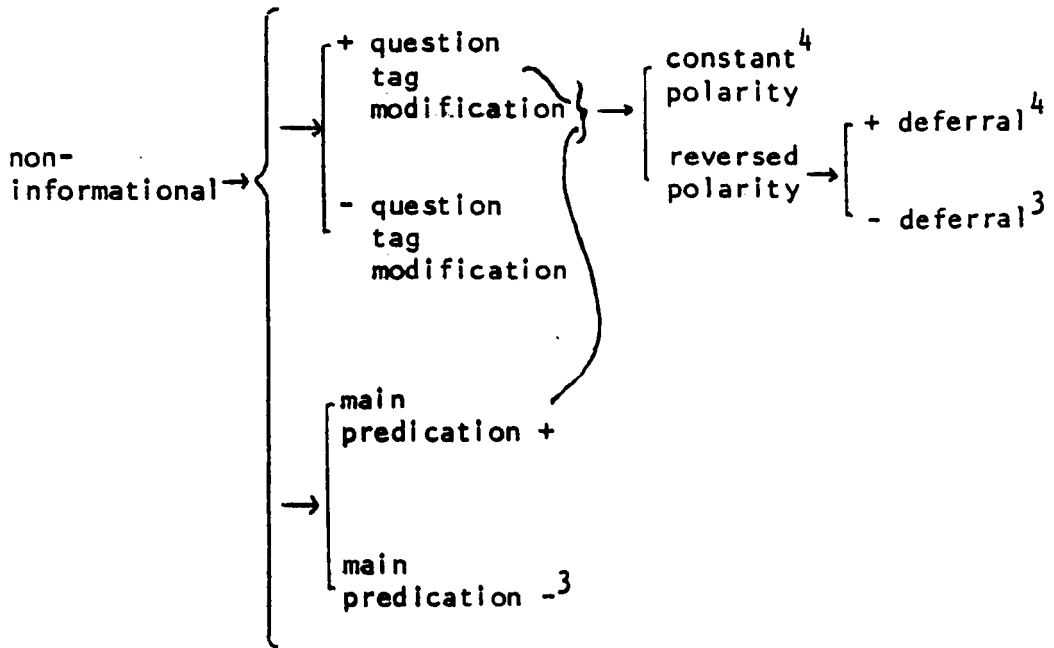
For statements, with the features [- exclamation, - question], there is a choice between a tag with matching semantic polarity (i.e. both main predication and tag + or both -) and one with reversed polarity (+/- or -/+). Only in the case of reversed polarity is there a choice between deferral to the hearer's opinion (signalled by rising intonation) and non-deferral (signalled by falling intonation). We may

indicate, by means of a marking rule, that in constant polarity tags there is always deferral. The sub-network for statements is thus as follows:



For predications with non-informational semantic force, the tag modification possibilities depend on the polarity of the main predication, as shown in Table 7.1. The sub-network overleaf captures the distinctions available. Marking rules are used to show that constant polarity tags on positive non-informational predications always show deferral (and hence rising intonation); while tags on negative predications must have reversed polarity with no deferral (hence falling intonation).

It is possible to collapse the sub-networks in such a way that each feature label occurs only once. The resulting network is, however, rather complex in its use of 'and' and 'or' bracketing, and of marking rules, so that it is clearer and more convenient to keep the sub-networks separate.



7.5 Performative semantics

One problem with the semantic networks we have developed so far is their inability to deal satisfactorily with performatives. As pointed out by Austin, and discussed in Chapter 3, performatives differ from constatives in not being subject to the true/false distinction. They cannot, therefore, satisfy the definition of a statement given earlier, viz. that the speaker is explicitly encoding his belief that the proposition is true. Connected with this is the fact that performatives, unlike statements, cannot be converted into question counterparts:

7.76 I promise I'll pay you back.

7.77 *Do I promise I'll pay you back?¹

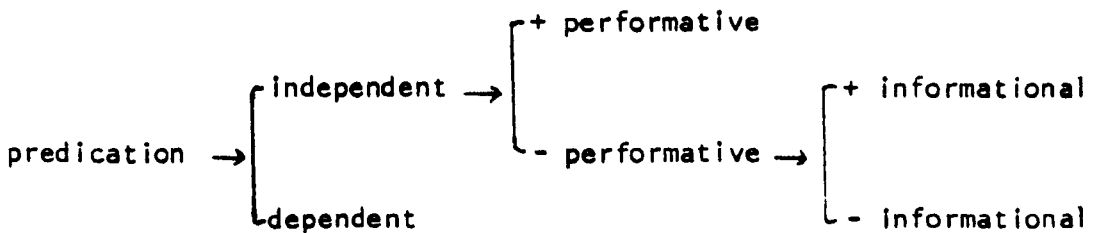
The performative problem may be resolved, in the context of our

¹ 7.77 is, of course, possible with a habitual interpretation; the asterisk belongs to it *qua* question counterpart of the performative reading of 7.76.

present approach, by the recognition of a separate performative semantic force, which will be realised syntactically as a declarative and lexically by means of a member of the class of performative verbs. A suitable gloss for the semantic feature concerned would be:

[performative] : in making the utterance, the speaker performs the act specified by the lexical verb used.

We now need to amend the least delicate part of the semantic force network as follows:



7.6 Realisation rules

The semantic force of a predication imposes very few restrictions on the semantic structure, so that the realisation rules for this area are very simple. Indeed, most of the features present in our semantic force networks are required, not in semantic realisation rules, but in the mapping relations between semantics and syntax (see §7.7). There are, however, some semantic rules to be specified.

Every predication must have, as its daughter, a predicate, though this need not, of course, be expressed syntactically. For [+ informational] and [dependent] predications, nothing further can be said about the nature of this predicate: for [- informational] and [+ performative] predications, however, we can specify the class of predicate present as a daughter. As noted in §7.3, and discussed further in §8.4.2, non-informational predications, encoded syntactically as imperatives, normally require a non-stative predicate. Predications marked as [+ performative] clearly require a 'verbal action' (a subclass of non-stative predicate) as a daughter (for one piece of evidence for a [verbal] class of predicate, see §8.4.2). We may therefore write three daughter dependency rules, as follows:

DD1	{ + informational } { dependent }	→	+ predicate
DD2	- informational	→	- stative
DD3	+ performative	→	verbal

7.7 Mapping relations between semantic force options and syntax, the lexicon and intonation

Table 7.2 shows the ways in which the various semantic force options discussed in this chapter are mapped on to syntactic, lexical and intonational choices.

Syntactically, the choice of an overt performative as in 7.78, like that of a statement as in 7.79 (defined by the features [- question, - exclamation], is reflected in declarative mood, specified as [- optative, - interrogative] in Hudson's grammar (see §5.3.2).

SEMANTIC FEATURES (S)	COMPOSITIONAL CONTRIBUTION	REALIZATION IN		
		SINCE	BEFORE	INTERMEDIATE
• performative		- optative, - interrogative	performative lexical verb	form 1 (marked) form 5 (marked)
- optative - exclamative		- optative, - interrogative		form 1 (marked) form 2-5 (marked)
closed		• interrogative topic, if present, <u>and</u> [+wh-phrase]		form 2 (marked) form 1 (marked)
open		• interrogative topic is [+wh-phrase, - conjunction]		form 1 (marked) form 2 (marked)
- question • exclamative		- optative, - interrogative topic is [+wh-phrase], constituent with feature [+finite] is positive WH		form 1 (marked) form 5 (marked)
- declarative		- optative, - interrogative topic, if present, <u>and</u> [+wh-phrase]		form 2 (marked) form 5 (marked)
- declarative		• optative, - interrogative		form 1 (marked) form 3, 4, 5 (marked)
• question (by modification)		• optative, - interrogative in main clause [optative [interrogative] [finite] [definite] [WH]		
• deferred				form 2 on tag
- deferred				form 1 on tag
constant polarity	[- question, • exclamative] [- question, • exclamative] [+ question, • exclamative] [- question, • exclamative]	• optative, - interrogative		
reversed polarity	• question, - • exclamative	• optative, - interrogative		

Table 2.1

Mapping of semantic, syntactic and pragmatic features, features, and frequency

7.78 I order you to open the door.

7.79 The door is closed.

Performatives and statements differ lexically, however, in that the former must contain a lexical verb which can act performatively, while the latter are lexically unrestricted. The two types also differ intonationally, in that the performative will have simply Tone 1 (falling tone - see Halliday 1970c: 9) as its unmarked tone, or Tone 5 (rise-fall) as a marked, 'committed' variant, while a statement may have Tones 2, 3 or 4 (high-rise, low-rise or fall-rise respectively) as well as 1 or 5, the various tones carrying added attitudinal implications (for details see Halliday 1970c).

Syntactically, the difference between closed and open questions (as in 7.80 and 7.81 respectively) is that the former cannot have a *wh*-phrase as TOPIC (i.e. at the beginning of the sentence), while the latter must have such a phrase as TOPIC (we shall ignore here complications such as are introduced by echo-questions with displaced *wh*-phrases, as in *He went when?*).

7.80 Is the door open?

7.81 When did you close the door?

They also differ intonationally in that the unmarked tone for a closed question is Tone 2, with Tone 1 as an attitudinally marked variant, while the unmarked tone for an open question is Tone 1, with 2 as a marked variant.

Exclamations, as we have seen, are of two semantic types: the feature [+ exclamation] may be combined with [+ question], as in 7.82 or with [- question], as in 7.83 and 7.84.

7.82 Isn't this a lovely house!

7.83 What a lovely house!

7.84 What a lovely house this is!

The syntactic realisation of the question type, as in 7.82, is the same as for a closed question, except that the clause cannot be [+ optative] as it can in an ordinary closed question:

7.85 Shall I open the door?

Intonationally, question-type exclamations differ from ordinary closed questions in that the exclamations have Tone 1 (unmarked) or 5 (marked), while closed questions, as we have seen, take Tone 2 (unmarked) or 1 (marked).

The non-question type of exclamation has two possible types of mapping, as in 7.83 and 7.84 respectively. In 7.83 the realisation is simply a *wh*-phrase as a 'minor' clause; in 7.84 there is declarative mood (i.e. [- optative, - interrogative]), with a *wh*-phrase as TOPIC. In this 'major' clause form, there is an additional restriction, namely that the finite verb must be positive, in view of the ungrammaticality of 7.86:

7.86 *What a lovely house this isn't!

Intonationally, both types of non-question exclamation have Tone 1 (unmarked) or 5 (marked).

Predications with the feature [- Informational], as in 7.87, are realised by clauses with the features [+ optative, - interrogative]. They have Tone 1 (unmarked) or 3, 13 or 4 (marked).

7.87 Open the door.

The syntactic mapping of the feature [+ question tag modification] involves the addition, to the main clause, of a paratactically joined clause which is a reduced version of a

closed question, having just a finite auxiliary verb and a pronoun (specified as [+ definite, - wh]) as its sister. In cases where there is deferral by the speaker to the opinion of the addressee, the tag has Tone 2; if there is no deferral, the tag has Tone 1.

Finally, we have to specify the syntactic mapping of the polarity relations between main clause and tag. In statements with constant semantic polarity, such as 7.88 and 7.89, we need only to match the syntactic polarity of the tag with that of the main clause.

7.88 The door is open, is it?

7.89 The door isn't open, isn't it?

As noted in §7.4, 7.89 is rare, but acceptable in at least some dialects.

It will be remembered from §7.4, that Hudson has suggested that the surface negative of a tag on non-question exclamations, such as 7.90, is a reflection of exclamation force rather than of negative semantic polarity, so that such tags can be seen as having constant semantic polarity.

7.90 What a lovely house (this is), isn't it?

We must thus ensure that non-question exclamations with a constant polarity tag have a negative auxiliary in the tag clause.

For non-informational predications, our network in §7.4 specified that only those with positive semantic polarity could have a constant polarity tag, as in 7.91:

7.91 ^ˈOpen the door, will you?

The realisation of the feature [constant polarity] in this case will thus be a positive auxiliary in the tag clause.

Turning finally to reverse polarity tags, we here have the simple situation where the syntactic (as well as semantic) polarity of the tag is opposite to that of the main clause, so that in the environment [main predication positive] the realisation is a tag clause with a negative auxiliary, while in the environment [main predication negative] the realisation is a tag clause with a positive auxiliary. Examples are given below:

7.92 The door is closed, isn't it?

7.93 Open the door, won't you?

7.94 The door isn't closed, is it?

7.95 Don't open the door, will you?

7.8 Concluding remarks

In this chapter, the insightful work of Hudson (1975) on semantic force has been extended to include the semantics of imperative sentences, and a fuller treatment of question tags. Unlike Hudson's article, however, the present account offers a formalised statement of the semantic options and their interaction, and also specifies the contribution of these options to the generation of semantic structures, and their mapping on to syntactic features, lexical items and intonation. We shall draw upon our account in predicting the social properties of various types of modalised directive in Chapter 9.

8: MODAL SEMANTICS

8.1 Introduction

In this chapter, we shall first consider what are the requirements for an adequate description of the semantics of the English modals. Previous descriptions of the area will then be discussed briefly in the light of these criteria, and found to fall short of the ideal. An attempt will then be made to develop, on the basis of our stated requirements, a network and realisation rules for modal meanings, with main reference to the 'root' modal uses which, as we have seen, occur standardly in indirect directives. The application of the rules will then be exemplified by the generation of a semantic structure for a sentence which might appropriately be used directly. Finally, we discuss the mapping relations between modal meanings and syntactic, lexical and stress assignment choices.

8.2 Requirements for an adequate account of modal semantics

The area of modal meaning is one of great complexity and subtlety. In the modal verbs, we are confronted with a small set of items which can carry a bewildering range of messages. As we shall see in §8.3, some studies have attempted to reduce this complexity to a small number of basic distinctions, often sacrificing accuracy and completeness of coverage for the sake of apparent simplicity, elegance and symmetry. Others have adopted an equally extreme position at the opposite end of the

spectrum of approaches: the various meanings of each modal are listed and exemplified, but with little attempt to find regular patterns. We must beware of both extremes: the modal area is too complex to be entirely accounted for in terms of neatly symmetrical oppositions; but this should not blind us to the fact that there is a considerable amount of order underpinning the diversity. Our first requirement, then, is that as in any linguistic study, we must attempt to isolate features which capture a maximum of generalisations, but we must not pretend that such features will necessarily exhaust modal meaning. Clearly, one important general distinction which will have to be accounted for in any adequate model is that recognised in nearly all treatments of the area, between 'root' and 'epistemic' meanings of the modals.

One particularly important aspect of the complexity of modal meanings which has been highlighted by recent corpus-based studies of the modals (see Palmer 1979, Leech & Coates 1979, Coates & Leech 1980, and §8.3 below) is that such meanings are not completely describable in discrete, categorical terms. That is, we must recognise some degree of semantic indeterminacy here, such that a given modal occurrence may not belong squarely in one category or another, but may share some of the characteristics of two categories, or may even be a blend of two types of meaning, the individual meanings being inextricable from the whole. We shall discuss this problem in more detail later; meanwhile, we must accept, as our second requirement, that an adequate model will need to reconcile the use of categorical labels in linguistic rules, with the 'fuzzy' nature of some of the meaning distinctions involved.

A third requirement is that we must account for any restrictions on the combinations of modal semantic categories with meanings from other areas. The most important restrictions of this kind are those involving semantic force, mentioned briefly in §2.6. Modal meanings, both root and epistemic, occur in semantic statements (i.e. predications with the features [- exclamation, - question] from the network developed in Chapter 7) as in 8.1 and 8.2 below, and (more limitedly) in closed questions, as in 8.3 and 8.4, but not in formally imperative sentences with the feature [- informational], as in 8.5 and 8.6. This is not entirely due to the fact that modals have no infinitive form for use as an imperative: periphrastic constructions with modal meaning do not occur readily in imperatives either, as shown in 8.7 and 8.8.

8.1 You must go now.

8.2 That could be the postman.

8.3 Must you go now?

8.4 Could that be the postman?

8.5 *Must go now.¹

8.6 *Could be the postman.¹

8.7 *Be obliged to go now.

8.8 *Be possible that that's the postman.

Our fourth, and final, general requirement is that a description of modal semantics be formulated in terms of a set of

1

These sentences could, of course, occur as ellip-
tised versions of statements. They are starred here
as imperatives.

generative rules, which show precisely the relationships between the various options in modal meaning, and the way in which these options determine the semantic structure of modalised predications.

8.3 A brief review of previous accounts of modal meaning

It would be of little value to discuss in detail here all the many publications which have dealt with modal meaning. We shall limit ourselves, in the main, to an indication of the approaches taken by various authors, and the extent to which their work matches up to the requirements outlined in §8.2.

The grammars of English produced by such linguists as Jespersen (1932), Zandvoort (1975), Quirk *et al* (1972), contain often quite detailed discussions of the meanings which can be attributed to individual modals. Such treatments are, at their best, fairly comprehensive, and postulate various semantic categories such as 'permission', 'ability', 'obligation', 'possibility' and the like, but fail to give an explicit account of the systematic relationships between the types of meaning. These accounts are not, of course, formulated in terms of generative rules. They are of interest as sources of information about modal usage, but cannot be considered to provide the kind of rigorous description we require.

A number of studies adopt what might be called an 'invariant meaning' approach to the modals. This is seen at its most extreme in the work of Joos (1964) and Bouma (1975). Joos (1964: 5) assumes "that signals will have consistent meaning", and Bouma (1975: 314), acknowledging his debt to

Joos, and also to Jakobson, likewise assumes that "a grammatical form has a basic grammatical meaning that is invariant in all its uses" and that "the linguist's main task is to uncover and explain the invariant meaning of each of the members of a given set and their relationships to each other". Variations in the import of a particular modal are, according to this view, not part of the meaning of the modal, but caused by extraneous factors such as co-textual and contextual conditions.

Palmer (1967, 1979) argues convincingly against this invariant meaning approach. He points out (1967: 181) that even Joos is forced to admit two subsystems of meaning for certain modals, and that modal forms patently do have more than one meaning. In order to preserve the strong 'one form - one meaning' hypothesis, Joos is forced to postulate extremely vague basic meanings, and to claim that certain properties of the modals are part of their 'connotation' rather than their denotative meaning. But denotation, for Joos, seems to mean no more than 'central meaning', so that the claim is vacuous. Palmer is surely right to denounce the invariant meaning hypothesis of Joos and Bouma as "an a priori assumption that is wholly unjustified" (1967: 183), and as "pure dogma with no very obvious theoretical justification and no empirical basis" (1979: 10). As he points out, grammatical elements such as cases, genders or aspects have no consistent meaning; furthermore, lexical items are often polysemous, and there is no reason to suppose that the modals will differ from other lexemes in this respect.

A somewhat less extreme view than that of Joos and Bouma is taken by Ehrman (1966). She puts forward the concept of a 'basic meaning' for each modal:

The BASIC MEANING is the most general meaning of the modal in question, the meaning that applies to all its occurrences. In a sense it is the lowest common denominator of all the occurrences, for the determination of which context is unnecessary. (Ehrman 1966: 10)

In addition to these basic meanings, there are 'overtones', which, although they 'derive from the basic meaning', add further meaning of their own. For example, the basic meaning of *can* is said to be "that there is no obstruction to the action of the lexical verb of which *can* is an auxiliary; that is to say, that action is free to take place" (1966: 12).

A number of overtones are, however, possible, in terms of the qualities of the subject, the existence of permission, and so on. Leech (1969: 270) and Huddleston (1969: 166) have pointed out the basic drawback of this approach, which is that the 'basic meanings' are still too vague to have any real usefulness. For instance, as Leech points out, the basic meaning claimed for *will* (that "the occurrence of the predication is guaranteed" (Ehrman 1966: 34)) is inadequate because there are other modals for which this is also true, because some occurrences of *will* (the 'volitional' uses) do not in fact guarantee that the predication will be actualised, and because there are cases where *will* cannot be used even where the occurrence of the predication is guaranteed. Furthermore, as Huddleston (1969: 169) and Palmer (1979: 10) observe, for Ehrman *may* does not have a unitary basic meaning, but is "defined in terms of a continuum characterised by two dimen-

sions of meaning" (Ehrman 1966: 22). Presumably, then, there is no reason to discount polysemy in the other modals.

Joos, Bouma and Ehrman all conceive of their basic meanings as the product of intersecting semantic dimensions, such as can conveniently be displayed in matrix form, though for his three-dimensional model Joos (1964: 149) prefers the analogy of a 'semological cube' with one modal at each corner. The matrix model, which is simply a cross-classification by features, has the advantage of showing generalisations across modals, which are not so clear if the properties of individual modals are simply listed. Indeed, we shall make use of such cross-classification in our own model (§8.4). There is, however, a tendency for authors to be so attracted by the symmetry of their matrices that they force modals into categorisations which are intuitively implausible. This fault is compounded in models such as those we have discussed, where the cells of the matrix are supposed to represent a basic meaning common to all occurrences of the modal. Palmer (1967: 188) discusses particular instances of implausibility in Joos' analysis, and concludes:

It is fairly clear that the simple and neat analysis that Joos presents can only be achieved by a great deal of vagueness of definition, explaining away counter examples and often seeing meanings that no one else would see.

Huddleston (1969: 166) also comments that although Ehrman's analysis was intended as a reaction against the over-tidiness of Joos' model, she herself shows signs of similar tendencies in the matrix presentation of her findings (Ehrman 1966: 76).

Bouma's (1975) matrix analysis of the English modals has been rightly criticised by Palmer (1979: 12-13), not only for the vagueness of its categories, but also for the fact that it attempts to squeeze the English modals into a classification previously established for the German modal verbs. Other matrix analyses which are subject to the general criticisms outlined above are those of Twaddell (1960) and Marino (1973), the latter being situated within a broadly transformational generative framework.

One rather disturbing aspect of these matrix analyses which attempt to assign to each modal a complex of intersecting features is the diversity of semantic distinctions which have been postulated.¹ We shall not discuss these in detail, but the point may be adequately made by comparing the feature specifications for one modal (*can*) as proposed by various authors.

Twaddell (1960: 11): absolute/unrestricted, possibility/
capability/permission

Joos (1964: 149-50): casual, adequate, potential

Ehrman (1966: 76): environment as conditioner,
predication not prevented

Marino (1973: 316): - necessity, + possible, + execution

Bouma (1975: 322): subjective, precarious

At this point, let us summarise the inadequacies of accounts which postulate one basic meaning for each modal, represented as a complex of intersecting feature classifications. The search for basic meanings leads to categories of

¹ Note also that simultaneously with Joos' matrix analysis, Diver (1964) was able to propose a unidimensional analysis in terms of 'degrees of likelihood'.

an unacceptable degree of vagueness. Although analysis by feature cross-classification is a potentially fruitful approach, an over-insistence on symmetry can lead to implausibly forced proposals. In terms of the criteria set out in §8.2, then, such analyses are at fault in sacrificing accuracy and comprehensiveness of coverage for the sake of elegance. Furthermore, they fail badly on our other three criteria: they say very little about the 'fuzziness' of this area of the semantics (though Ehrman's account is perhaps less deficient in this respect than the others); they do not even consider interactions between modalisation and semantic force; and they do not provide explicit rules for generating the semantic structures of modalised sentences.

Several other accounts based on a semantic feature approach have not fallen foul of the difficulties which beset the seeker after 'basic meanings'. Anderson (1971), for instance, while presenting his analysis in terms of a feature matrix (and also in terms of rewrite rules and system networks) recognises that two or more cells in the matrix may contain the same modal form, and that a single cell may contain more than one form, i.e. that a given form may have more than one feature specification and a given feature specification more than one realisation. Indeed, there is much of value in Anderson's work, and we shall have occasion to refer to it again later (see §8.4). Ney (1976, 1978), whose work is situated within a basically generative semantic type of framework,¹

¹ For a rather different type of generative semantic account, see Antinucci & Parisi (1971).

also recognises the possibility of alternative realisations of the same set of semantic features, and discusses this in terms of the 'floating' of features, that is their optional assignment to different surface modals. However, neither Anderson nor Ney discusses non-discreteness, nor do they tackle the question of semantic force restrictions.

A rather different approach, though still based on a componential, semantic feature analysis, is that of Leech (1969), which is of particular interest for the present work, in a number of ways. As we saw in Chapter 5, Leech adopts what is in effect a systemic model, in that he attempts to relate (paradigmatic) semantic contrasts to (syntagmatic) semantic structures. Where Leech differs from previous accounts is in the emphasis on a (necessarily complex) formalism which will allow the statement of logical relations (of implication, inconsistency, etc.) between sentences.

Some of Palmer's (1979: 13-14) criticisms of Leech are rather unfair. Palmer complains that Leech's analysis "is more concerned with classification than explanation"; yet Leech is centrally concerned with the isolation of features of some generality, which will allow him to relate the modals semantically to other areas, such as causation, personal reference, the expression of constraint in lexical verbs, and so on. At a more specific level, it is simply not true that, as Palmer claims, "there is no attempt to account for the distinction between epistemic and non-epistemic modality": the epistemic/root distinction is indeed recognised by the presence, in the specification of root modals, of a 'relative' feature not present for the epistemic meanings.

Palmer is right, however, to criticise Leech for an over-emphasis on the putative logical relations between modals: as we shall see, Palmer's own work suggests that forms claimed to be logically equivalent often have slightly different communicative values in the language system (see also Davies 1979: 94-5 for a discussion of logic/language relations in this area). Palmer is also right in pointing out that Leech's "different systems interrelate, but in no very systematic way, and there is no overall symmetry". Leech does state dependencies between the various features he proposes, but the type of formalisation is such that it is difficult to relate all these dependencies to give an integrated picture. To Palmer's criticisms we may add two: there is no discussion of the semantic correlates of mood and their interaction with modal categories, and the problem of non-discreteness is not raised (indeed, the emphasis on logical properties would tend to inhibit such discussion).

We turn now to another approach to the modals, based on the concept of speech acts discussed in Chapter 3. The first of these analyses was that of Boyd & Thorne (1969), who regarded the modals as indicators of the 'illocutionary potential' of a sentence. Thus the meaning of 8.9 below is taken as a statement about a command, and decomposed in terms of the abstract underlying performative verbs 'imp' (for 'imperative') and 'state', as in 8.10.

8.9 (= Boyd & Thorpe's 6) He will go.

8.10 (= Boyd & Thorpe's 7) I state Some proform imp him
He go.

Boyd & Thorne's analysis is a version of the 'performative hypothesis', developed by Ross (1970) and others, which holds

that all sentences contain an abstract underlying performative verb showing the speech act force. We shall not discuss this hypothesis here, but shall merely note that there is a considerable weight of evidence marshalled against it. For recent discussion see Lyons (1977), Gazdar (1979).

A similar proposal is made by Householder (1971) who, like Boyd & Thorne, seeks to reduce Austin's five-way classification of illocutions to two terms, 'Will' and 'Assertion' (cf. Boyd & Thorne's 'Imperative' and 'state'). Householder's account is, however, no more than programmatic, and suffers from the same drawbacks as the earlier proposal.

Lyons (1977), although doubtful of the validity of the performative hypothesis, himself proposes an analysis of modal meaning situated in a speech act framework. He takes over the distinction made by Hare (1970) between 'phrastic', 'tropic' and 'neustic'. The phrastic of a sentence (or, better, an utterance - see below) is its propositional content, that part which is constant under interrogation or imperative formation. The tropic is the part which indicates the speech act type, and, in many languages, correlates with mood: the 'I say so' of a declarative or the 'So be it' of an imperative, for instance. The neustic represents the speaker's degree of commitment to the factuality, desirability, or whatever, of the propositional content. Thus an ordinary declarative would be analysed as 'I say so - it is so - p' (where p = propositional content), while a straight imperative would receive the analysis 'I say so - so be it - p'. Lyons (1977; 802 ff.) is then able to account for at least the broad categories of modal meaning in terms of the modification of these three components.

For instance, 8.11 is analysed as either 8.12 ('subjective' epistemic modality) or 8.13 ('objective' epistemic modality), and 8.14 as 8.15 or 8.16 ('deontic' modality).

8.11 (= Lyons' 24, p. 801) It may be raining.

8.12 ←neustic→ ← tropic → ← phrastic →
Possibly it is the case that it is raining.

8.13 ←neustic→ ← tropic →
I say that it is possibly the case that
←phrastic →
It is raining.

8.14 (= Lyons' 11, p. 839) You must open the door.

8.15 I say so - it is so - that an obligation to open
the door exists

8.16 I say so - so be it - that an obligation to open
the door exists

Lyons' account is unsatisfactory in a number of ways.

Firstly, it is intended as a partial theory of utterance meaning, not sentence meaning. Secondly, it is cast very clearly in the logician's mode, and is subject to the same criticisms as those voiced by Palmer in relation to Leech's analysis. Lyons sometimes fails to differentiate between meanings which are to some extent distinct in the language. It is simply not true, for instance, that "the difference between 'I permit you to do *a*' or 'You are obliged (by X) to do *a*' cannot be drawn within sentences containing the modal verbs in English, except by adding parenthetical clauses like *I say so* and *X says so*" (p. 841), and that the analyses in 8.15 and 8.16 are thus equivalent. The modal *may*, in its permission sense, clearly indicates the speaker's involvement in the creation of permission, in all but a few specialised registers of English; and if we are willing to admit *have to*

as semantically modal, at least, then we can also claim that *have to* always indicates that the speaker is not specifically involved in the imposition of obligation. Furthermore, Lyons analyses permission as equivalent to the non-existence of obligation, and it is by no means clear that this is the case. (For further discussion of these points, see §8.4.)

The influence of speech act theory can also be seen in Mitchell's (1974) account of modal meanings, in which he labels root 'deontic' modality as 'directive' and epistemic modality as 'verdictive', distinguishing also between 'performative' and 'constative' subtypes, and in Davies' (1979) account of modal contributions to the 'decision plane' of meaning.

We turn now to Halliday's (1970a) 'functional diversity' account of the modals, which was outlined in §2.6. There, we criticised this work for the adoption of a semanticosyntactic model which does not recognise the basic syntactic unity, but semantic diversity, of the modals. We also criticised it for the dubious correlation of 'modulation' with the ideational function of the grammar. Halliday's account is, however, also seriously deficient in other ways. In his attempt to demonstrate the underlying parallelism of 'modulations' (root) and 'modalities' (epistemic), Halliday ignores, or pays scant attention to, important aspects of modal meaning. Although he is concerned with periphrastic realisations of modal meaning, as well as with the modal verbs themselves, he simply assumes the semantic equivalence of, for example, modals and certain modal adverbs (*possibly* = *may*, *perhaps* = *might*, and so on). Indeed, he admits (p. 331) that "other speakers probably have different patterns". Furthermore, Halliday glosses over

the important dimension of the speaker's involvement or non-involvement in the imposition of constraints. He notes (p. 349) that 8.17 and 8.18, 8.19 and 8.20, differ in that the speaker is the source of constraint in 8.17 and 8.19, but not in 8.18 and 8.20; he does not, however, build these distinctions into the network of options proposed.

8.17 Jones must resign.

8.18 Jones is required to resign.

8.19 You can go now.

8.20 You are allowed to go now.

Neither does Halliday attempt to account for the non-occurrence of even periphrastic realisations of modalities and modulations in imperative sentences.

There is, however, one respect in which Halliday's work is somewhat more insightful than most of the other accounts we have considered so far: he recognises the non-discrete nature of certain modal oppositions. For instance, he remarks (p. 344) that with forms such as *could have*, *should have*, 'we find instances which are more like blends, where there appears to be no requirement of selecting just one OR the other interpretation; for example, *he could have escaped if he'd tried*, 'that he would have escaped if he'd tried is possible' or 'if he'd tried he would have been able to escape'."

Fawcett's (1980) account of modal meaning is extremely sketchy, but appears to be very similar to Halliday's, except that (as we saw in §2.3) Fawcett's modulation and modality options are quite definitely semantic. Fawcett also distinguishes two subsystems of 'modality', which he calls 'modality' and 'probability attitude', realised by modal verbs and adverbs respectively.

Finally, we turn to two recent accounts of the modals: Palmer's (1979) book, which builds on his earlier work on the English verb (Palmer 1974); and Leech's later work in collaboration with Coates (Leech & Coates 1979, Coates & Leech 1980). These accounts have two important features in common: they are based on the analysis of sizeable corpora (Palmer's on the Survey of English Usage, Leech & Coates' on the Brown Corpus of American English and a parallel corpus of British English collected in Lancaster); and, because of this, they are forced to come to terms with the non-discrete, 'fuzzy' nature of many distinctions in this area.

Palmer's is without doubt the most comprehensive and searching account of modal meaning yet available, and we shall make considerable use of it in the description presented in §8.4. It attempts to take cognizance of the many shades of meaning found in the Survey corpus, and yet to recognise underlying dimensions of contrast. Nevertheless, Palmer's work does not entirely meet the criteria set out in §8.2. Although non-discreteness is recognised throughout, Palmer provides no theoretical apparatus which can reconcile this with the necessity of discussing distinctions in categorical terms. Furthermore, the presentation of the analysis is discursive throughout, with no formalisation of the relationships between the categories posited. Like others in the field, Palmer has nothing to offer on the restriction of modal meanings to non-imperative sentences.

The work of Leech & Coates concentrates largely on areas not central to Palmer's work. Their main concern is the quantitative examination of modals in relation to co-occurring

syntactic and semantic features of the text, the differences between British and American English, and differences of genre or style. This work does, however, offer one important advantage over Palmer's account, in that it gives a more penetrating analysis of semantic indeterminacy in the modal area, and suggests a way in which non-discreteness can be reconciled with the recognition of categorical distinctions. Leech & Coates (1979: 81 ff.) recognise three types of semantic indeterminacy: ambiguity, gradience and merger. Ambiguity, of course, consists in the possibility of more than one semantic interpretation for a given language token. Gradience refers to the situation where there exist two categories with clear exponents, but also intermediate cases which are in some ways like one category, in some ways like the other, and which can be placed on a 'cline' between the two extremes. Merger applies where a sentence is capable of two interpretations, as with ambiguity, but where the two interpretations can co-exist, neither being incompatible with the context of the sentence. As we have seen, cases of merger in the modal area were previously recognised by Halliday (1970a). Gradience can be distinguished from merger by paraphrase tests (Leech & Coates 1979: 82):

... if paraphrase formulae A and B are criterial for clear instances of semantic categories a and b, then either A or B or both will fail to provide satisfactory paraphrases of an intermediate case (gradience); whereas for a case of merger, both A and B will be satisfactory paraphrases.

In the more detailed investigation of gradience, a number of paraphrases can be used as tests, and modal usages plotted on a matrix showing which tests they pass and which they fail,

thus demonstrating the degree of similarity or difference between particular types of usage (see Leech & Coates 1979: 88).

We shall discuss instances of these types of indeterminacy later (§8.4); meanwhile, it is important to consider how they can be reconciled with a categorical approach to classification. Leech & Coates (Leech & Coates 1979: 88, Coates & Leech 1980: 26) suggest that the notion of 'quantitative stereotype' may be invoked here. Their analytical results show that most modal usages conform centrally to one or other of a limited number of traditional categories such as 'permission', 'ability', and so on. The suggestion is that modal meanings are interpreted by reference to these 'core' meanings as quantitatively, and hence psychologically, predominant stereotypes, and that "if this is the case, operating with categories such as 'permission', 'ability', etc. (while allowing for 'unclear cases') is not a distortion, but a justified simplification of the data" (Coates & Leech 1980: 26). Leech & Coates (1979: 88-9) point out that this concept is probably applicable also to other linguistic classifications, such as the 'squishes' proposed for syntactic phenomena by Ross (see e.g. Ross 1973).

8.4 Towards a network and realisation rules for modal semantics in English

8.4.1 Introductory comments

As we saw in §8.3, Palmer's (1979) account of modal meanings is the most comprehensive and well-documented so far available. In what follows, we shall make extensive use of Palmer's categories, also drawing on various insights from Leech, Lyons and others.

Our account will attempt to fulfil the four requirements set out in §8.2. Palmer's description itself covers a wide range of meanings, and yet succeeds in demonstrating a fairly small number of underlying dimensions of contrast, so satisfying our first criterion. We shall, in fact, propose a somewhat larger number of individual meaning types than Palmer recognises, and this will be seen to yield a rather simple underlying framework, in that we find no need to block certain combinations of features which are disallowed in Palmer's scheme. Our description may possibly err on the side of over-generation: detailed work with an even larger corpus of examples than Palmer's could provide the evidence necessary to decide this point.

To deal with the problem of non-discreteness, we shall adopt Leech's entirely plausible concept of quantitative stereotypes. Where instances of gradience or merger occur, they will be mentioned in our discussion.

The relationships between modal meanings and semantic force categories will be accounted for in terms of the entry conditions for modal systems.

Finally, the network formulated will show explicitly the relationships among the various dimensions of modal meaning, and the realisation rules will specify the precise effects of systemic choices on the semantic structures of the sentences concerned.

8.4.2 Modals and semantic predicate classification

We follow Leech (1969) and Antinucci & Parisi (1971) in treating modals as representing semantic predicates (see

§5.6.2). A full treatment of the classification of such predicates is beyond the scope of the present work (for further discussion, see Butler, in preparation); however, some important distinctions must be sketched in, so that certain semantic properties of the modals can be accounted for.

One important property of a semantic predicate is the number of arguments it can take (for discussion see e.g. Lyons 1977: 149, Allwood *et al* 1977: 60-61): predicates can be classified as 1-place, 2-place or 3-place. The possibility of predications containing more than three arguments is a matter of some controversy. Furthermore, 3-place predicates can often be reduced to 2-place predicates, with an embedded predication as one argument (see Leech 1969: 69 ff.). We should probably also recognise zero-place predicates (i.e. predicates with no arguments) in the case of meteorological processes (*rain, snow*, etc.) and some other types, where no 'participant' is involved (see Halliday 1968: 193, Chafe 1970: 101 ff.). Examples of the various possibilities are shown below:

8.21 It's raining. (0-place)

8.22 The boy ran away. (1-place)

8.23 John hit Bill. (2-place)

8.24 John gave Mary a book. (3-place)

The arguments here correspond to the 'inherent participants' of Halliday's accounts of 'transitivity' in the English clause (see especially Halliday 1970b: 150 ff.; forthcoming), although it should be remembered that participant roles are claimed to be syntactic in Halliday's earlier account. In what follows we shall deal only with 1- and 2-place predicates.

A second distinction we shall need in discussing the modals is that between 'stative' and 'dynamic' predicates. The distinction is clearly explained by Lyons (1977: 483) (who uses the term 'static' rather than the more usual 'stative') as follows:

A static situation (or state-of-affairs, or state) is one that is conceived of as existing, rather than happening, and as being homogeneous, continuous and unchanging throughout its duration. A dynamic situation, on the other hand, is something that happens (or occurs, or takes place): it may be momentary or enduring; it is not necessarily either homogeneous or continuous, but may have any of several temporal contours, and, most important of all, it may or may not be under the control of an agent.

Quirk *et al* (1972: 94) provide a series of tests which distinguish stative from dynamic types (Quirk *et al*'s examples are given):

(i) Statives do not normally occur in the progressive:

8.25 *I'm knowing the language.

8.26 *I'm being tall.

cf. 8.27 I'm learning the language.

8.28 I'm being careful.

(ii) Statives do not normally occur in the imperative:

8.29 *Know the language.

8.30 *Be tall.

cf. 8.31 Learn the language.

8.32 Be careful.

(iii) Statives do not allow pseudo-clefting with *do* as pro-form:

8.33 *What I did was (to) know the language.

8.34 *What I did was to be tall.

cf. 8.35 What I did was to learn the language.

8.36 What I did was to be careful.

(iv) Statives do not occur in complements of causative verbs such as *persuade*:

8.37 *I persuaded her to know the language.

8.38 *I persuaded her to be tall.

cf. 8.39 I persuaded her to learn the language.

8.40 I persuaded her to be careful.

(v) Statives do not take certain manner adverbs requiring an animate subject, e.g. *reluctantly*:

8.41 *I knew the language only reluctantly.

8.42 *I was tall only reluctantly.

cf. 8.43 I learned the language only reluctantly.

8.44 I was careful only reluctantly.

(vi) Statives do not take the adverbial *for ... sake*:

8.45 *I knew the language for my fiancée's sake.

8.46 *I was tall for my fiancée's sake.

cf. 8.47 I learned the language for my fiancée's sake.

8.48 I was careful for my fiancée's sake.

Test (vi) is not, in fact, a good differentiator, in view of cases such as 8.49:

8.49 I lived there for my fiancée's sake.

The implication here is that it was a decision to live there which was taken for the sake of the fiancée. Such examples, however, make the test difficult to apply, and we shall not use it here.

Each of these tests depends on the semantic properties described by Lyons in the passage quoted above. The restriction on the occurrence of statives with progressive aspect is explained by Palmer (1974: 71) in terms of the fact that "the sense of duration is an integral part of the lexical meaning of the verb, and there is for this reason no need for a progressive form to indicate duration". However, the progressive can have other meanings, some of which are not incompatible with stative meaning, so that the restriction is not absolute: as Palmer (1974: 74) points out, statives can occur in the progressive where the duration of the state is limited, as in 8.50 as compared with 8.51.

8.50 We're living in London at the moment.

8.51 We live in London.

The other tests depend on the non-agentive nature of statives: they are not 'doing' predicates. This is also the basis for the tests proposed by Chafe (1970: 98 ff.): non-statives allow sensible answers to questions of the type 'What happened?', while statives do not. Chafe goes on to distinguish between those non-statives ('actions') which answer the question 'What did N do?' (where N is some nominally-expressed entity having the power of action) and those (which he terms 'processes') which answer the question 'What happened to N?' (as well as simply 'What happened?'). *Hit* and *eat* would be examples of 'actions', while *die*, *fall*, and so on, would be 'processes'. Halliday (1968: 196) also distinguishes between 'do' and 'happen' types. This distinction is important in a detailed account of predicate classification (see Butler, in preparation); we shall not, however, need to discuss it further here.

For 2-place predicates, we shall distinguish between 'first' and 'second' arguments, the former corresponding to the sole argument of a 1-place predicate (i.e. mapped on to the subject of an active sentence in the unmarked situation), the latter to the 'extra' argument: this should not, of course, be taken to imply any ordering in the semantic structure (see §5.6.3), but is merely a matter of convenient labelling for reference to the arguments concerned. 8.59 - 8.61 below show examples of (i) embedding at the first argument of a 2-place predicate, (ii) embedding at the second argument, (iii) embedding at both first and second arguments.

8.59 John saw Bill in London.

= (John • saw • Bill) • in • London

8.60 I know that Bill has arrived.

= I • know • (Bill • has arrived)

8.61 John saw Bill before they left the office.

= (John • saw • Bill) • before • (they • left •
the office)

The examples of embedding given so far have all involved stative predicates (*know*, *(be) in*, *(be) before*). 8.62 - 8.65 below show that non-stative predicates have the same range of embedding options.

8.62 It emerged that he had stolen some money.

= (He • had stolen • some money) • emerged
[1-place, argument embedded]

8.63 It reached the ears of his employers that he had
stolen some money.

[2-place, first argument embedded]

8.64 I saw that Bill had arrived.

[2-place, second argument embedded]

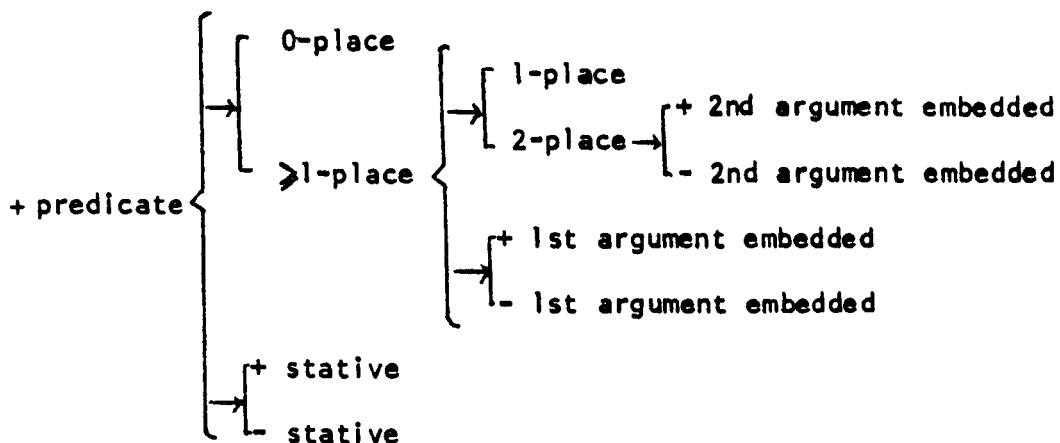
8.65 His failure to find a steady job caused her to be very unhappy.

= (He · failed · (he · find · a steady job)) ·
caused · (she · be very unhappy)

[2-place, first and second arguments embedded]

The possibility or impossibility of the various kinds of embedding allows the further subclassification of semantic predicates. For example, the ability of predicates representing various 'mental' phenomena such as perception, reaction and cognition (see e.g. Halliday 1970b: 153) to take embedded second arguments gives us one reason for recognising this type of predicate as a separate subclass. Similarly, of the 'action' type of non-stative predicate, only verbal actions can take embedded second arguments. This area will not be discussed further here, but is developed in Butler (forthcoming).

We can now revise our earlier network for predicate classification as follows:



We shall see in §8.4.3 that the distinction between 1- and 2-place predicates is important in differentiating various types of modal meaning, and that for all modal predicates one argument is represented by an embedded predication. Before embarking on this detailed account of modal semantics, however, we must show why the stative/non-stative distinction is important in this area.

The restrictions on the combination of modal meanings with semantic force are explained in a very straightforward way if we postulate that all modal predicates are inherently stative; for it will be remembered (see 8.29 - 8.32) that stative predicates do not normally occur in imperative sentences, and this is exactly the behaviour we wish to predict. If modal predicates are indeed stative, they should also pass the other tests proposed by Quirk *et al*, and discussed earlier. Let us consider the modal meanings of ability, volition, and obligation. Because of the lack of non-finite forms for modals, we shall have to use the periphrastic forms in many cases. In the case of obligation, we can circumvent this problem to some extent by using *have to*: this does, however, beg some questions about the use of *must*, which we shall return to in §8.4.3. Note that we are not claiming here that the modal verbs and the periphrastic 'equivalents' (e.g. *will/be willing to*, *can/be able to*) have exactly the same meaning: what we are concerned to show is that the basic meanings of ability, volition and obligation, which underlie both modals and periphrastic forms, are inherently stative.

Neither ability nor volition normally occurs in the progressive:

8.66 *I am being able to swim a mile.

8.67 *I am being willing to go.

Obligational *have to* can, however, occur in the progressive:

8.68 I am having to go to the hospital every day at present.

The reason for this is not that *have to* is non-stative, but rather that, as we saw earlier, the progressive can be used with statives where limited duration (here made explicit by *at present*) is expressed.

None of our three examples of modal meaning can occur in a pseudo-cleft sentence with *do* as pro-form:

8.69 *What I did was to be able to swim.

8.70 *What I did was to be willing to go.

8.71 *What I did was to have to go to the hospital.

Ability and obligation do not occur in sentential complements of verbs such as *persuade*:

8.72 *I persuaded her to be able to swim.

8.73 *I persuaded her to have to go to the hospital.

Example 8.74, however, involving willingness, is perhaps acceptable:

8.74 ?I persuaded her to be willing to go.

This is probably because willingness, unlike ability, is a state which can be altered by voluntary mental processes, so that 8.74 can be interpreted as 'I persuaded her to change her state of volition from unwilling to willing'.

Neither ability nor volition can occur with manner adverbs such as *reluctantly* or *deliberately*:

8.75 *Reluctantly, I was able to swim.

8.76 *Deliberately, I was willing to go.

It is, however, possible that many native speakers would accept 8.77:

8.77 ?Reluctantly, I had to go.

Here, however, it is the going which is done reluctantly: that is, the adverbial relates to the main predicate rather than to the modal predicate.

We see, then, that the modal categories we have examined do indeed behave as statives in the tests proposed by Quirk *et al.* If we are to maintain our claim, we must counter the suggestion, made quite frequently in the literature, that certain modals can be used as performatives: performatives, by definition, are actions, and thus non-stative.

Let us begin by considering some examples of 'deontic' modality from Palmer's (1979) account.

8.78 If you want to recall the doctor, you may do so.

8.79 Of course you can inspect the nurseries.

8.80 You must keep everything to yourself, be discreet.

8.81 You shall have it by tomorrow.

Palmer claims (p. 59) that 'we may take the criterion of being performative as a starting point for defining the deontic modals': thus 8.78 and 8.79 are seen as acts of permission granting, 8.80 as an act of obliging, and 8.81 as a promise. Mitchell (1974: 16) discusses 'performative' uses of the modals, and Kelckar (1974: 198) claims that root *must*, *ought/should* and *may/can* are all "mildly performative". Lakoff (1972a: 926) treats certain uses of *will* as equivalent to orders, and *may* as equivalent to the granting of permission. Elsewhere (1972b: 238) Lakoff again raises the question of the relationship between modals and performatives, but does

not answer it. Fillmore (1973: 101 ff.) states that *may* can be used performatively, in permission granting, or non-performatively in statements or questions about the existence of a permissive state. Feldman (1974: 156) claims that the root modals have a similar function to performatives, but regards this as a pragmatic rather than a semantic matter.

Undeniably, certain types of modal meaning are functionally related to performatives, and it is part of our contention, in the present work, that such relationships should be made explicit. There are good reasons, however, for maintaining that the modals are never themselves semantically performative, but are related to performatives only at the level of discourse function.

Firstly, as Boyd & Thorne (1969: 60 ff.) have pointed out, directly used modals can occur in the third person, as in 8.82:

8.82 (= Boyd & Thorne's 6) He will go.

It is normally assumed, however, that the 'patient' of an illocutionary verb in a performative sentence must refer to the addressee. 8.82 cannot, then, be taken as a performative, but is a statement about a directive constraint. Although in 8.83 the subject is second person, the sentence exhibits the same kind of structure as 8.82, and can, as Boyd & Thorne state, be analysed similarly in terms of its semantics.

8.83 (= Boyd & Thorne's 1) You will go.

A second observation of relevance here is that deontic modals can occur in questions, as in 8.84 and 8.85, taken from Palmer's (1979) account.

8.84 May/can I leave now?

8.85 Must I come tomorrow?

On Palmer's own admission (p. 65), such uses cannot be regarded as performative, since performatives cannot be (semantically) questions. Clearly, 8.84 and 8.85 should be analysed as questions about the potential creation by the addressee of a state of permission or obligation, and there seems to be no reason to treat the corresponding declaratives as anything but statements about such states. Additional evidence for this view is given by the observation of Lyons (1977: 833) that an addressee may respond to 8.86 by uttering a sentence relating to the truth or falsity of the existence of a state of obligation, as in 8.87.

8.86 You must open the door.

8.87 That's not true: I don't have to.

Palmer (1979: 42) suggests that the epistemic modals may also be regarded as performative; but again the occurrence of such modals in questions means that this analysis cannot be upheld.

The deontic and epistemic modals are not, then, semantically performative. We do, of course, need to show the speaker's involvement in the creation of obligation, permission, and the like, and in the expression of opinions on possibility: this will be discussed in §8.4.3.3.

8.4.3 Dimensions of modal meaning

8.4.3.1 Introductory remarks

The account presented here is based on six main sets of distinctions:

- (i) whether the modal is being used with epistemic or non-epistemic meaning;
- (ii) whether there is any specific involvement of a discourse participant (the speaker in statements, the hearer in questions);
- (iii) the 'degree' of modality: e.g. 'possibility', 'necessity'; also including meanings such as 'volition', 'guarantee', 'confident statement';
- (iv) if non-epistemic, whether the constraint is related specifically to one participant (represented syntactically as the subject) or to the whole event;
- (v) whether the modal lexeme is used with tentative or non-tentative meaning;
- (vi) whether the modality has positive or negative polarity.

In addition, we shall need to bring in the polarity of the main (non-modal) predicate, though this is obviously not specifically part of the modal area. We shall not deal in detail here with the interaction of modal meaning with semantic features relating to time, since this area is not of crucial concern to the present work (for a detailed account see Palmer 1979).

We shall now discuss each of the six sets of distinctions in turn.

8.4.3.2 Epistemic and non-epistemic modality

The epistemic senses of the modals show a number of distinctive properties. They are concerned with "the modality of propositions rather than actions, states, events, etc." (Palmer 1979: 41): for this reason, they can be paraphrased with expressions such as *it is possible that*, where the proposition is in a separate *that*-clause. As Palmer has pointed out, the expression *it is necessary that* is not an accurate paraphrase for epistemic *must*, nor is *it is probable that* equivalent to epistemic *will*; however, paraphrases with *that* are still possible - *the only possible conclusion is that* (= *must*); *a reasonable inference is that* (= *will*).

In most cases, it is not possible to attach past time to the modality, since the speaker's assessment of degree of possibility is in the present; Palmer (1979: 51-2) has, however, discussed some exceptions to this.

The epistemic modals show 'voice-neutrality': that is, the active and passive equivalents are cognitively synonymous, as shown in 8.88 and 8.89.

8.88 John may have stolen the money.

8.89 The money may have been stolen by John.

Finally, according to Leech & Coates (1979: 85) epistemic meanings do not exhibit 'fuzziness' (but see the discussion of 'subjective' and 'objective' epistemic modality in §8.4.3.3).

The non-epistemic modals are concerned with constraints on events and their participants rather than on propositions, and are paraphrasable by expressions such as *it is possible/necessary for*. The modality, as well as the main predicate, can be marked for past time, and may or may not show voice-

neutrality (see §8.4.3.5 for discussion). Furthermore, there is a good deal of fuzziness in this area.

These matters will be taken up again as appropriate in the discussion of particular subtypes of modality, although we shall pay less attention to epistemic modality, since this is not central to the present work.

8.4.3.3 Involvement of a discourse participant

As has already been briefly mentioned (see §8.2, §8.4.2), certain senses of the modals involve the speaker (in a statement) or the hearer (in a question) as the immediate source of permission, obligation, and the like. The concept of speaker involvement has been proposed by a number of writers on this area (see Palmer 1974, 1979; Leech 1969, 1971; Antinucci & Parisi 1971; Mitchell 1974; Lakoff 1972b; Lodge 1974). We shall take Palmer's latest and most comprehensive account as a starting point for our discussion.

Palmer's classification of non-epistemic modal senses with respect to the involvement of a discourse participant is summarised in Table 8.1 overleaf. It should be noted that Palmer's terminology changes somewhat between the 1974 and 1979 accounts. The terms used in the later presentation are taken from von Wright (1951): 'deontic' modality (see also Lyons' use of the term, §8.2) is what was previously called 'discourse-oriented', involving a discourse participant; 'dynamic' modality does not specifically involve such a participant. Further distinctions within dynamic modality are made, and will be discussed in §8.4.3.5.

	Deontic (+ discourse participant)	Dynamic (- discourse participant)
Possibility	MAY/CAN (permission)	CAN/MAY (general possibility, ability)
Necessity	MUST	MUST/HAVE (GOT) TO SHOULD/UGHT TO
Volition/ guarantee	SHALL (guarantee)	WILL (volition)

Table 8.1: Participant involvement in Palmer's account

We may contrast the deontic examples 8.78 - 8.81, repeated for convenience below, with 8.90 - 8.94, which Palmer includes under dynamic modality.

8.78 If you want to recall the doctor, you may do so.

8.79 Of course you can inspect the nurseries.

8.80 You must keep everything to yourself, be discreet.

8.81 You shall have it by tomorrow.

8.90 Signs are the only things you can observe.
(general possibility)

8.91 Cader Idris, however, may be climbed from other
points on this tour. (general possibility)

8.92 I feel that ... my destiny's very much in my
control and that I can make or break my life
and myself. (ability)

8.93 Now I lunched the day before yesterday with one of
the leaders of the Labour Party whose name must
obviously be kept quiet - I can't repeat it.

(dynamic *must* - general necessity)

8.94 Will you say to him that I can't come to a meeting next Wednesday because I have to go to a Cambridge examiners' meeting? (dynamic necessity - *have to*)

8.95 I'm seeing if Methuen will stump up any money to cover the man's time. (volition)

Palmer's chief distinguishing criterion here is that deontic, speaker-based modality is incompatible with past time, since the present speech act of the speaker cannot influence a past event; there is no such restriction, however, on dynamic modality. To this criterion we may add another, not pointed out by Palmer as a distinguishing feature. There are restrictions on the first argument of a predicate showing speaker involvement: the recipient of the obligation, permission or guarantee must be a person; that is, the cluster acting as argument here must be marked as [personal] (see Leech 1969: 212). For dynamic modality, where there is no speaker involvement, the restrictions are rather less severe: as Palmer (1979: 73) and Chafe (1970: 109) have pointed out, non-personal and even inanimate objects can be conceived of as having the 'power' to bring about events, though they clearly cannot be given permission or placed under obligation. Examples from Palmer include the following:

8.96 Religion can summate, epitomise, relate, and conserve all highest ideals and values.
(taken from Ehrman 1966: 13)

8.97 Protoplasm, the living substance of all plants, contains nitrogen and the rose tree must absorb this nitrogen in the form of nitrates.

We shall use Chafe's term 'potent' to refer to the arguments in such modal predications.

Other writers agree in broad terms with Palmer's division into speaker-involvement and non-involvement types, but there are specific points of disagreement. Leech (1969), Mitchell (1974) and Antinucci & Parisi (1971) state that *may* indicates speaker-based permission, while *can* is unspecified as to orientation. Antinucci & Parisi (1971: 35), following Leech, point out that although 8.98 is acceptable, 8.99 is not.

8.98 (= Antinucci & Parisi's 75) You can smoke in here,
as far as I know.

8.99 (= Antinucci & Parisi's 76) ?You may smoke in here,
as far as I know.

However, these two accounts fail to recognise the clearly deontic use of *can* exemplified by 8.79. Furthermore, although Leech (1969: 218) mentions a use of *may* very similar to that in 8.91, he implies that one need only consider the possible interpretations 'possible that' and 'permitted' for the modal, the latter being favoured by the use of *may not* for the negative equivalent (see discussion of negation in §8.4.3.7). He does not consider the analysis proposed by Palmer, namely that *may*, in particular registers such as guide books and technical English (though not normally in conversation), sometimes expresses 'general possibility', being, in that case, an alternative to *can*.

Leech is in agreement with Palmer on the speaker-based meaning of *shall* as against the inherence of volition in the subject of the sentence (see also §8.4.3.5) for *will*. There is less agreement, however, on *must/have (got) to*. Leech (1969: 228) claims that *must* is always speaker-based, while *have to* is open as to the source of authority; Mitchell

(1974: 16 ff.) says that although *have to* must be used if the speaker is reporting someone else's decision, it can also be used to impose speaker authority, instead of *must*. Palmer's examples from the Survey of English Usage suggest strongly that both these positions are untenable: examples such as 8.100 and 8.101 below show that *must* can be used, as an alternative to *have (got) to*, where there is no obvious speaker involvement; and Palmer found no examples of the deontic use of *have (got) to*.

8.100 I must have an immigrant visa. Otherwise they're likely to kick me out you see.

8.101 I've really got to know when completion date is likely. Otherwise I might find myself on the streets.

We showed in §8.4.2 that the claim of performative status for the deontic modals was erroneous. Instead, we shall adopt the formulation proposed by Palmer himself (1979: 59) as an alternative: "the speaker takes responsibility for the judgement". It is not even necessary that the speaker be the ultimate source of constraint: as Lakoff (1972b: 239, following Larkin 1969) and Lodge (1974: 193) have observed, deontic *must* can be used where the speaker agrees with the obligation but is not himself its ultimate source.

The adoption of the 'speaker responsibility' criterion raises, as Palmer admits, alternative possibilities for the analysis of *should/ought to*. Although Palmer's discussion of these modals is not absolutely conclusive, he feels it is not unreasonable to argue that they are equivalent tentative forms of neutral dynamic (i.e. non-deontic) *must*. The analysis in

terms of tentativeness, which has also been proposed by Anderson (1971: 79), has the advantage of bringing out the exact parallels between the behaviour of *should/ought to/should have/ought to have* and *could/ould have*, in terms of their implication of the unreality of the event (see Palmer 1979: 101). Although we shall accept this analysis here, we shall propose that *should/ought to* are tentative equivalents, not only of dynamic *must*, but also of the deontic modal. Palmer appears to regard these analyses as mutually exclusive when he writes (1979: 69) that "it would not ... be entirely unreasonable to treat *should* and *ought to* as deontic, provided that we extend 'deontic' to include not simply performative uses, but all those where the speaker takes responsibility". Palmer's data, however, afford clear examples of *should/ought to* in both deontic and dynamic uses:

8.102 You should read, my dear, more. You don't read enough, my darling.

8.103 You really ought to be buying something a bit more modern and a bit more expensive.

8.104 If the ratepayers should be consulted, so too must the council tenants.

In 8.102 and 8.103 we have *should/ought to* with speaker involvement: it would be very odd, for instance, if the speaker were to add to either example a rider such as *but it's not me who says so*. In 8.104, on the other hand, quoted by Palmer as an example of dynamic *must*, we have an exactly parallel use of *should*, with no obvious speaker involvement.

Let us now consider very briefly, for the sake of completeness, the involvement or non-involvement of discourse participants in epistemic modality. Lyons (1977: 797 ff.) has distinguished between 'subjective' and 'objective' epistemic modality. Consider the possible interpretations of Lyons' example in 8.105 below:

8.105 (= Lyons' 14) Alfred may be unmarried.

Under one interpretation, the speaker is expressing his own assessment of the probability of Alfred's being unmarried. As Lyons observes, a second interpretation is possible if, for instance, Alfred is a member of a community of 90 people, 30 of whom are known to be unmarried; here, the speaker can say that he knows (rather than merely thinks) that there is an objective possibility, in this case quantifiable, of Alfred's being unmarried. The first, subjective, type has properties not shared by the second, objective type. As Lyons shows, the speaker may add to the subjective, but not the objective, assessment a qualification such as *but I doubt it*, or *and I'm inclined to think that he is*; furthermore, 8.106 is equivalent to the subjective, but not the objective, interpretation.

8.106 (= Lyons' 18) Perhaps Alfred is unmarried.

A third test is that although either interpretation of an epistemic modality can be reported by the use of *say*, only the objective type can be reported with *tell*, so that 8.107 may correspond to either interpretation of 8.105, but 8.108 only to the objective interpretation.

8.107 He said that Alfred might be unmarried.

8.108 He told me that Alfred might be unmarried.

Palmer (1979: 38, 42) admits the possibility of subjective and objective interpretations of epistemic modality, but does not build them into his account. It seems clear, however, that there is a generalisation to be made across types of modality here: both epistemic and non-epistemic modalities can, but need not, involve the speaker as a source, in the one case as a source of a probability assessment, in the other case as a source of constraint.

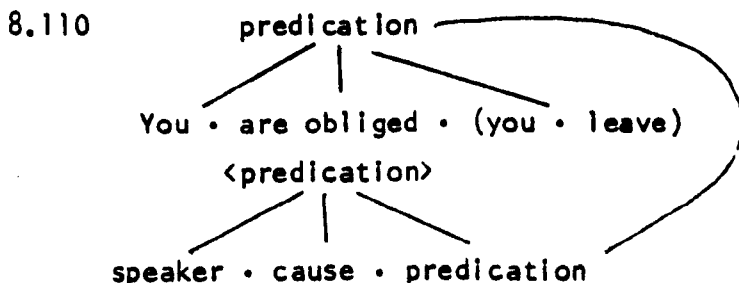
It must be admitted that distinctions of speaker involvement or non-involvement are not always absolutely clear-cut; that is, there are instances of what Leech has called 'gradience' (see §8.3). Leech & Coates (1979: 83) give textual examples of non-epistemic *can* which show a gradient of meanings ranging from 'personal authority', through 'regulation', 'reasonableness', 'ethical/moral', to 'natural law'. Similarly, the subjective/objective distinction for epistemic modality may well show non-discreteness. Such gradients can, as we have seen, be reconciled with categorical distinctions such as those we have been discussing, by the use of the concept of quantitative stereotypes.

Finally, we must consider how the involvement of a discourse participant in deontic and subjective epistemic modality can be represented in a formal account of the semantic structures of modalised sentences.

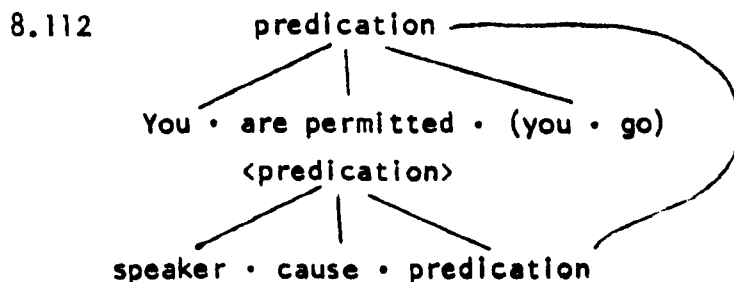
For deontic modality, the speaker (in a statement) or the hearer (in a question) can be seen as the cause of the existence of a state of obligation, permission or guarantee. This formulation is the basis of the accounts of this area given by Leech (1969) and by Antinucci & Parisi (1971).

8.110; 8.112 and 8.114 show, somewhat informally for the present, the semantic structures of the three deontically modalised sentences 8.109, 8.111 and 8.113 respectively. The curved ties show identity of the items linked; <predication> represents a downgraded predication (see §5.6.4).

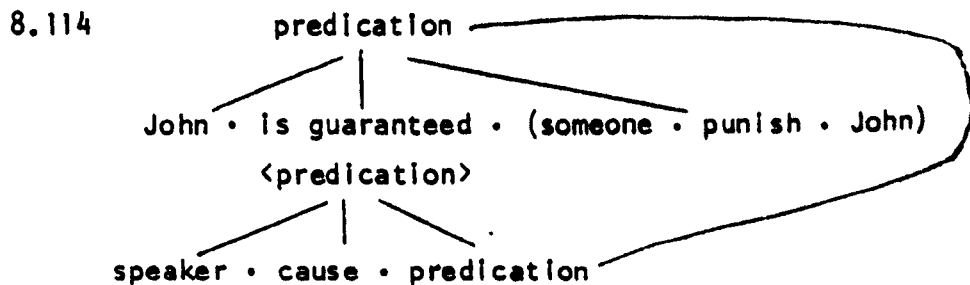
8.109 You must leave.



8.111 You may go.



8.113 John shall be punished



The ways in which such structures are generated from systemic choices are discussed in detail in §8.4.4.3.

For the sake of completeness, we shall sketch in very briefly the proposed structures involving subjective and objective epistemic modality. 8.116 and 8.117 show, again informally, the structures of the subjective and objective interpretations, respectively, of 8.115.

8.115 John may be foolish.

8.116 [For] speaker • is possible • (John • be foolish)

8.117 (John • be foolish) • is possible.

Note that subjective epistemic modality involves a 2-place modal predicate, while objective modality involves a 1-place predicate.

8.4.3.4 Degrees of modality

It is clear that there are important generalisations to be made across the various types of modality (epistemic, deontic and dynamic, in Palmer's terminology) in terms of 'degrees' of modality. Most writers on this area, both linguists and logicians, have pointed out that the concepts of possibility and necessity can combine with the basic epistemic/non-epistemic distinction to produce more specific meanings. Leech (1969: 211 ff.), for example, postulates a system of 'constraint', with the terms 'weak' and 'strong', which distinguishes between possibility and (logical) necessity, and which can combine with the system of 'authority' to produce the meanings of permission and obligation. As we saw in Table 8.1, Palmer (1979) treats permission, general possibility and ability as subtypes of non-epistemic possibility, and obligation as non-epistemic necessity.

In systems of modal logic, possibility and necessity are related in terms of negation of the modality or the main predication:

$$\text{possible } \left\{ \begin{array}{l} \text{that} \\ \text{for} \end{array} \right\} x \equiv \text{not-necessary } \left\{ \begin{array}{l} \text{that} \\ \text{for} \end{array} \right\} x$$

$$\text{not-possible } \left\{ \begin{array}{l} \text{that} \\ \text{for} \end{array} \right\} x \equiv \text{necessary } \left\{ \begin{array}{l} \text{that} \\ \text{for} \end{array} \right\} \text{not-}x$$

$$\text{not-necessary } \left\{ \begin{array}{l} \text{that} \\ \text{for} \end{array} \right\} x \equiv \text{possible } \left\{ \begin{array}{l} \text{that} \\ \text{for} \end{array} \right\} \text{not-}x$$

This has led to the suggestion, by some logic-oriented linguists, that only one of these categories should be used in the semantics, the other being derivable from it by appropriate combination with negation operators. Lyons (1977: 802, 839), for instance, claims that possibility is the primary category in the analysis of epistemic modality, but that obligation (i.e. necessity) is primary for deontic modality. Permission, in this case, is analysed as the absence of prohibition (i.e. X is allowed \equiv not-necessary for not- x). However, as Palmer (1979: 55, 65) has pointed out, and as we commented briefly in §2.6, such analyses, though expressing near-equivalences of some importance, misleadingly over-simplify the facts of English. There is, for instance, clearly a distinction to be made between refusing permission and imposing an obligation not to do something, and yet both would be analysed as 'necessary for not- x ' in a logical system with necessity as the primary modal term. Similarly, although *can't* is the most usual form to express epistemic 'not-possible that', *mustn't* can be used when the speaker wishes to stress 'necessary that

not', despite the equivalence of these in a logical analysis. For these reasons, we shall adopt here an analysis involving both possibility and necessity, for epistemic and non-epistemic modality. Interactions with negation are discussed in §8.4.3.7.

Other specific types of modality, not involving possibility or necessity, have been discussed under the headings of 'volition', 'guarantee', 'confident statement', among others, in the literature. These are the meanings which can be carried (in addition to meanings involving futurity) by the modals *will* and *shall*. Although such meanings appear to be somewhat heterogeneous, and are often discussed in a rather unsystematic way in the literature, it is in fact possible to incorporate them simply and economically into our account if we postulate a third 'degree' of modality, labelled negatively as [- poss/nec], which can interact with all of the major types of modal meaning, as shown in Table 8.2.

Poss/nec	Epistemic	Discourse participant involvement	Specific type of modality	Realisation (positive)
-	+	+	subjective confident statement	<i>will</i>
-	+	-	objective confident statement	<i>will</i>
-	-	+	guarantee	<i>shall</i>
-	-	-	volition	<i>will</i>

Table 8.2: Modal meanings realised as *will* and *shall*

The label 'confident statement' is taken from Palmer's discussion of epistemic *will* (1979: 47). As we have seen, Palmer does not build in the subjective/objective distinction for epistemic modality. The following example from his data is, however, clearly subjective, being based on the speaker's own assessment of likelihood:

8.118 Tell him Professor Cressage is involved - he will know Professor Cressage.

An example of the (less common) objective use of epistemic *will* might be as follows:

8.119 There are 30 people in this room, and it is known that 29 are married. The remaining one is Alfred, so Alfred will be unmarried.

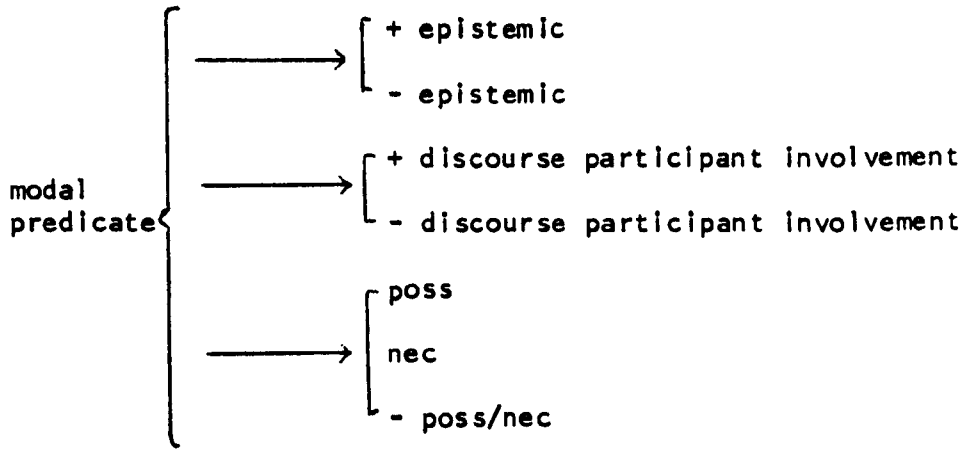
In this use, *will* is very close to objective *must*, though for subjective modality there are occasions when one of these modals would be more appropriate than the other, as Palmer observes.

Examples of 'guarantee' and 'volition' have already been given, and are repeated below.

8.81 You shall have it by tomorrow. (guarantee)

8.95 I'm seeing if Methuen will stump up any money to cover the man's time. (volition)

It may be helpful, at this stage, to give an as yet very incomplete system network, showing the distinctions discussed so far. 'Modal predicate' is to be taken as merely a shorthand label for the entry conditions to the modal systems, specified more clearly in §8.4.4.2.



The specific subtypes of modality generated are shown in Table 8.3. Finer distinctions will be made in §8.4.3.5.

Epistemic	Discourse participant involvement	poss/nec/-	Subtype of modality
+	+	poss	subjective epistemic possibility
+	-	poss	objective epistemic possibility
+	+	nec	subjective epistemic necessity
+	-	nec	objective epistemic necessity
+	+	-	subjective epistemic confident statement
+	-	-	objective epistemic confident statement
-	+	poss	permission
-	-	poss	general possibility, ability
-	+	nec	obligation
-	-	nec	general necessity
-	+	-	guarantee
-	-	-	volition

Table 8.3: Subtypes of modality generated by the initial network

8.4.3.5 Constraint on participant and constraint on event

Palmer (1979: 36-7) distinguishes two subtypes of 'dynamic' modality, which he terms 'neutral' and 'subject-oriented'. Compare the following sentences from Palmer's data, listed earlier:

8.90 Signs are the only things you can observe.

8.92 I feel that ... my destiny's very much in my control and that I can make or break my life or myself.

8.90 simply expresses the possibility of observing signs, while 8.92 expresses the ability or power of the subject of the sentence to make or break his own life. In 8.90, then, the event is viewed as possible; but in 8.92, the possibility inheres in a participant, realised as the subject. A second type of subject-oriented dynamic modality, according to Palmer (1979: 37, 108 ff.) is volitional *will*, exemplified by 8.95 quoted earlier.

Palmer's distinction between neutral and subject-oriented dynamic modality rests on two purported differences in behaviour, and we shall now show that neither of these criteria works well. Whereas 'neutral' possibility and necessity modals can take negation of the event (i.e. the main predication), there is, according to Palmer, more variable behaviour with the subject-oriented type, in that "with CAN it is difficult to imagine an example with the event negated" (1979: 37). Later, however, Palmer himself recognises that it is indeed possible to negate the event by using emphatic not:

8.120 We can (always/just/simple) not go.

Furthermore, volitional *will* can take negation of the event:

8.121 I won't ask for details.

As Palmer observes, 8.121 is equivalent to 'I am willing not to ask', at least in one interpretation. The criterion of event negation will not, then, serve to distinguish the two kinds of dynamic modality.

The second test is voice-neutrality. Although Palmer regards this as a 'grammatical' property, we have already seen (in §2.6) that the explanations for the presence or absence of voice-neutrality are in fact plausibly regarded as semantic. If the constraint is on the whole event, we shall expect passivisation to make no difference to the cognitive meaning: if, on the other hand, the constraint is on one particular participant, we shall expect passivisation to change the meaning.

As Palmer states, 'neutral' *can* and *must/have to* are indeed voice-neutral, as shown by examples such as 8.122 and 8.123:

8.122 It can easily be rubbed out.

8.123 The men have to/must do it - It has to/must be done by the men.

As expected, volitional *will* is not voice-neutral. This is particularly clear in cases such as 8.124 and 8.125, with the negative *won't*.

8.124 John won't kiss Mary.

8.125 Mary won't be kissed by John.

There are, however, problems with so-called 'subject-oriented' *can*. As Palmer points out (1979: 87-8), although passivisation of 8.126 to 8.127 seems unlikely, 8.128 and 8.129 seem

perfectly acceptable.

8.126 John can't lift that weight.

8.127 ?That weight can't be lifted by John.

8.128 That weight can't be lifted by anyone.

8.129 That weight can't be lifted by one man.

These examples demonstrate that "if there is reference to the person who has the ability (as the subject of the active sentence), passivisation will not be normal. There is, however, no restriction on the occurrence of a passive sentence, where there is no reference to a specific person with the ability, e.g. in an agentless passive or a passive with an indefinite agent" (Palmer 1979: 88). What this really means is that in a case such as 8.128, 8.129 or their active equivalents, it is the event, and not the participant, in which the possibility inheres, while with 8.126 the possibility is located in a specific participant possessing the required ability. Rather than adopt unmotivatedly Palmer's position, namely that 8.126 - 8.129 all represent the same basic type of modality ('subject-oriented dynamic possibility'), but that there are problems with voice-neutrality, we shall take voice-neutrality itself as a classification criterion, so grouping 8.128 and 8.129 together with 8.122.

Taking voice-neutrality itself as a criterion has consequences for our analysis of other types of modality too. There are voice-neutrality distinctions to be made within Palmer's category of 'dynamic necessity'. Palmer himself suggests that examples such as 8.97, repeated below, may show subject-oriented dynamic necessity, parallel to similar examples with *can*.

8.97 Protoplasm, the living substance of all plants, contains nitrogen, and the rose tree must absorb this nitrogen in the form of nitrates.

However, this example shows voice-neutrality, since 8.130 is not different in cognitive meaning.

8.130 ... and this nitrogen must be absorbed by the rose tree in the form of nitrates.

There are, however, examples which Palmer classifies as 'neutral', but which are not passivisable:

8.131 Yes, I must ask for that Monday off.

8.132 *That Monday must be asked for (off).

This is not due to the properties of *ask for*, since this can occur in passive sentences such as 8.133.

8.133 This record has been asked for by many listeners.

We find, then, that the distinction between constraint on event and constraint on participant, which underlies voice-neutrality, cuts across degrees of modality within the [- discourse participant involvement] class, except that volitional *will* is always marked as [constraint on participant]. This leads us to ask whether a similar distinction may be made within [+ discourse participant involvement] (i.e. 'deontic') modality.

Palmer (1979: 36, 68) claims that the deontic modals are voice-neutral, in view of examples such as 8.134 and 8.135, in which a bank manager is stating the requirements of the bank to a customer.

8.134 This, of course, must not be taken as a reason for drawing more cheques.

8.135 ... although the sale of these must not be delayed beyond the end of November.

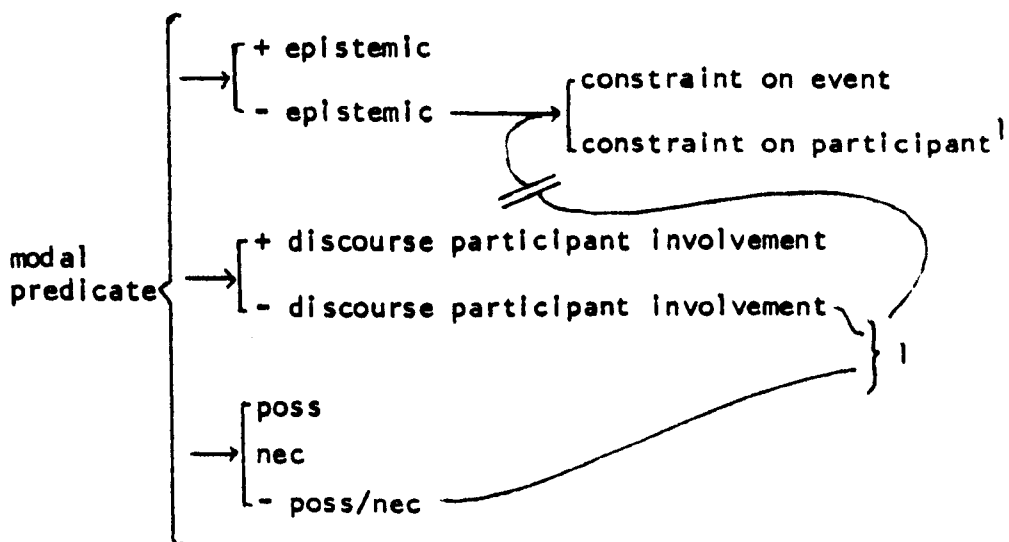
Palmer notes, however, that it is not at all clear that examples such as 8.136 and 8.137, where the agent is stated, are voice-neutral.

8.136 John may/shall/must meet Mary.

8.137 Mary may/shall/must be met by John.

Leech (1969: 207) also notes that his 'authority' predicates, involving permission and obligation, are not voice-neutral. Palmer simply raises these cases as a problem; within our present framework, however, they do not pose any problem; rather, they fit very neatly into the overall picture, since we now see that, with the exception of volitional *will*, all non-epistemic modalities can have constraint on either the event or a participant.

At this stage, we may add a further system to the partial network given in §8.4.3.4.



In this network, we have introduced a convention not hitherto used in the systemic literature. We shall see that in the area of modal semantics (as probably in many other areas) there is often a very regular pattern of simultaneous systems, with just one gap in the predicted matrix of feature combinations. In the present case, we have simultaneity of the 'constraint on event/constraint on participant' system with the discourse participant involvement and degree of modality systems, except that the combination [- poss/nec, - discourse participant involvement, constraint on event] is not possible, volitional predicates, realised as *will*, always having constraint on a participant. This could be shown by a complex set of disjunctions; it is preferable, however, to show the inherent regularity of the pattern by means of simultaneous systems, but to indicate the blocking of the one impossible combination. This is what is intended by the notation:

$$a^n \longrightarrow \parallel \longrightarrow \begin{bmatrix} b \\ c^n \end{bmatrix}$$

which means that the [b/c] choice is available in all cases except where [a] has been chosen, in which case [c] must be selected, as shown by the corresponding superscripts on [a] and [c].

We must now consider how the distinction between constraint on event and constraint on participant is reflected in the semantic structures of modalised sentences. The possibility, necessity or guaranteeing of an event can be shown by treating the predication representing that event as the argument of a 1-place modal predicate. On the other hand,

where the constraint falls on a participant, that participant will be the 'first' argument of a 2-place modal predicate, the 'second' argument being an embedded predication representing the event. For example, the semantic structure of 8.123, repeated below, is represented informally as in 8.138, while the structures of 8.124 and 8.125 are as in 8.139 and 8.140 respectively.

8.123 The men have to/must do it - It has to/must be done by the men.

8.138 (The men · do · it) · is necessary

8.124 John won't kiss Mary.

8.125 Mary won't be kissed by John.

8.139 John · is not willing · (John · kiss · Mary)

8.140 Mary · is not willing · (John · kiss · Mary)

The necessary realisation rules for generating such structures are specified in §8.4.4.3.

Finally, it should be noted that we may expect some degree of indeterminacy in the area discussed in this section: there may well be cases where the effect of passivisation is not entirely clear-cut, and where the notion of quantitative stereotype would need to be invoked.

8.4.3.6 Tentative and non-tentative modal meanings

As has been pointed out by a number of investigators (see e.g. Palmer 1979: 29-30, Leech 1969: 232 ff.), the past tense forms of the modals, where available, are used with three different types of meaning. Limitedly, *could* and *would* (and occasionally *might*) may express past time; *could*, *would*, *might* and *should* act as 'sequence of tenses' equivalents of *can*,

will, may and *shall* in reported speech; and *could, would, might* are used to add 'tentativeness' or 'unreality' to the meanings of the present tense forms. It is this third type of meaning with which we are concerned here, since it is extremely important in the selection of forms of modalised directive appropriate to particular types of situation. It will be remembered that, following Palmer (1979: 102) and Anderson (1971: 79), we may also treat *should/ought to* as tentative equivalents of *must*, though, unlike Palmer, we wish to claim that *should/ought to* are available as tentatives for both deontic (i.e. [+ discourse participant involvement]) and ([- discourse participant involvement]) necessity.

The [± tentative] distinction interacts in a quite regular way with the other distinctions we have discussed. In what follows, we shall illustrate, using Palmer's data, the interaction with the [± epistemic], [± discourse participant involvement] and [poss/nec/-] distinctions: there is no reason to believe that the tentatives behave any differently from their non-tentative counterparts in respect of the [constraint on event/constraint on participant] system.

Could and *might* can both be used in a permission sense (i.e. [- epistemic, + discourse participant involvement, poss]), though normally only in the interrogative:

8.141 Might I come in at the moment, on this, Chairman?

8.142 Well, could we go on to modern novels, then?

Palmer also suggests that the reproachful use of *might (have)* in examples such as 8.143 may be deontic:

8.143 You might have told me.

The [- discourse participant involvement] meaning corresponding to the above (i.e. Palmer's 'neutral dynamic possibility') is normally realised by *could*, in the tentative:

8.144 A Gannet could land and take off easily enough
in half the runway.

A possible example of 'dynamic' *might* is, however, noted by Palmer, although he also discusses alternative explanations:

8.145 We operate what might be called a gigantic
tutorial system.

Examples of *should/ought to* (i.e. [- epistemic, nec, + tentative]) with discourse participant involvement (8.102, 8.103) and without (8.104) have already been discussed, and are repeated below.

8.102 You should read, my dear, more. You don't read
enough, my darling.

8.103 You really ought to be buying something a bit
more modern and a bit more expensive.

8.104 If the ratepayers should be consulted, so too
must the council tenants.

There is one gap in the matrix of tentatives for non-epistemic modality: the combination [- epistemic, + discourse participant involvement, - poss/nec, + tentative] does not exist, i.e. there is no tentative equivalent of deontic *shall*. The corresponding meaning without discourse participant involvement (i.e. tentative volition) is, however, available, as shown in 8.146 and 8.147.

8.146 Certainly doesn't want to do Reigate. He would
do Cuckfield, and, of course, Horsham, and up to
Guildford that way.

8.147 Would you please let me know if you have sold
the balance of your securities yet?

The question type, as in 8.147, is, of course, an important kind of modalised directive, as is its non-tentative counterpart.

Let us now turn very briefly to epistemic modality. Epistemic tentative possibility is realised by *could* and *might*. Palmer (1979: 155 ff.) has pointed out that there are slight differences between the meanings of the two modals: "although both refer to what is conceptually possible, *might* commits the speaker to a judgement about the possibility of the truth of the proposition, whereas *could* merely says that it is theoretically possible, i.e. that such a judgement would be a reasonable one, without in any way committing the speaker". This would seem to be a fairly clear case of the opposition between subjective and objective epistemic modality: indeed, Palmer himself recognises this as a possible analysis. Epistemic *might*, then, as in 8.148, is marked as [+ discourse participant involvement], while *could*, as in 8.149, is [- discourse participant involvement].

8.148 So he might go and live with his parents for
a while.

8.149 This picture could be a Chagall, but is in
fact a Braque.

Should can be used for epistemic tentative necessity, as in 8.150.

8.150 You should be meeting those later on this
afternoon.

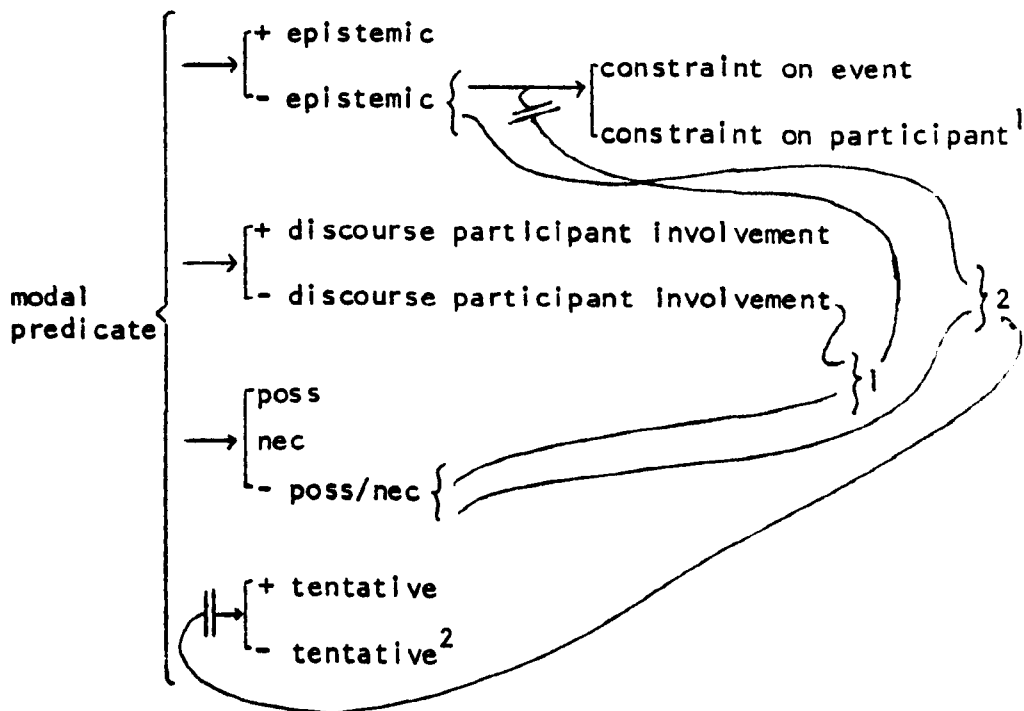
Palmer notes no examples of epistemic *ought to* in the Survey of English Usage data. Leech (1969: 220), however, gives the following example:

8.151 They ought to have reached home by now.

Finally, the combination [+ epistemic, - poss/nec, + tentative] is realised by *would*:

8.152 I think it would be Turner as well.

We now build the [\pm tentative] distinction into our network, blocking the combination [- epistemic, + discourse participant involvement, - poss/nec, + tentative] using the notational convention discussed earlier.



8.4.3.7 Negation

Theoretically, it should be possible to negate the modality, the non-modal predication representing the event, or both. We shall see that in most cases these three possibilities are all available, although there are some gaps in the matrix. We shall not give examples for all possible combina-

tions, but shall discuss in detail only those points where the present account differs from Palmer's.

Let us first consider non-epistemic modalities with discourse participant involvement (i.e. deontic modalities). Table 8.4 summarises the claims which will be made here: tentatives will be discussed later.

Degree of modality	Modality -	Event predication -	Both -
poss	<i>may not/can't</i>	<i>may</i> } <u><i>not</i></u> <i>can</i> }	<i>can't</i> <u><i>not</i></u>
nec	<i>needn't</i>	<i>mustn't</i>	<i>needn't</i> <u><i>not</i></u>
- poss/nec	-	<i>shan't</i>	-

Table 8.4: Negation for 'deontic' modality

As Palmer (1979: 64-5) points out, with *may not* (unstressed negative) and *can't* the modality is negated, but with *mustn't* and *shan't* it is the event expressed in the non-modal predication which is negated. 'Not-necessary' is expressed by *needn't*, but there is no modal verb to express 'not-guaranteed'. Palmer claims that with permission "there is no regular way of negating the event": he recognises that stressed *not* can be used after *may/can*, but claims this is ambiguous as between permission not to act and an emphatic refusal of permission. There are two points to be made here: firstly, as Palmer himself observes, such forms are often unambiguous in context; secondly, Palmer misses the point that intonation will often effect disambiguation, the 'permission not to' interpretation

usually having a fall-rise tone in examples such as 8.153, although admittedly it could have a simple fall when used as the second half of a disjunction, as after *you may/can come or*

8.153 You may/can not come.

Palmer does not discuss double negation in relation to the deontic modals, but it is clear that, although rather rare, forms such as *can't not* and *needn't not*, with a stressed negative, can be used to express 'not allowed not to' and 'not obliged not to' respectively. The possibility of such double negation, and the clear difference between refusing permission and laying obligation not to do something, argue strongly in favour of retaining the full matrix rather than reducing the system to include just the necessity predicate, with appropriate negation (see also the discussion in §8.4.3.4).

The non-tentative forms with *may* and *can* have tentative equivalents with *might* and *could* (*mightn't*, *couldn't*, etc.), and *mustn't* is paralleled by tentative *shouldn't/oughtn't to*. There is, however, a problem with the necessity modals, in that, as Palmer (1979: 104) points out, *needn't* could be regarded as the modality-negative equivalent of *should/ought to*, as well as, or rather than, the equivalent of *must*. Palmer is, in fact, unable to find any clear evidence for a distinction between a non-tentative and a tentative *needn't*. In other words, there is no choice between [+ tentative] and [- tentative] for modal predicates with the features [- epistemic, + discourse participant involvement, nec], and we shall need to block this combination in our network. We shall see later that a parallel restriction applies to non-epistemic

necessity without discourse participant involvement, and to epistemic necessity.

We turn now to non-epistemic modality without discourse participant involvement ('dynamic' modality). The distinctions proposed are shown in Table 8.5.

Degree of modality	Modality -	Event predication -	Both -
poss	<i>can't/may not</i>	<i>can <u>not</u></i>	<i>can't <u>not</u></i>
nec	<i>needn't/ don't have to</i>	<i>mustn't/ haven't to</i>	<i>needn't <u>not</u></i>
- poss/nec	<i>won't</i>	<i>won't/will <u>not</u></i>	<i>won't <u>not</u></i>

Table 8.5: Negation for 'dynamic' modality

There are few problems here. The normal modality-negative possibility modal is *can't*, although *may not* could occur as a negative counterpart of the use of *may* in 8.91, giving 8.154.

8.91 Cader Idris, however, may be climbed from other points on this tour.

8.154 Cader Idris, however, may not be climbed from other points on this tour.

For negating the event predication after a necessity predicate, *haven't to* is available as an alternative to *mustn't* (cf. the deontic type, where only *mustn't* is available); similarly, *don't have to* is equivalent to *needn't* for modality negation.

The form *won't* can be used to negate either the modality or the event predication. Modality negation is the more usual

interpretation, as in 8.155, from Palmer's data.

8.155 They won't give me a key to get into the building, so I can't work.

But, as Palmer (1979: 126-7) points out, and as we observed in §8.4.3.5, *won't* in 8.121, repeated below, is equivalent to 'willing not to'.

8.121 I won't ask for details.

Leech (1971: 88) has a similar example:

8.156 Don't worry - I won't interfere.

It is possible to imagine *will not*, with stressed negative and probably falling-rising intonation, as an alternative to *won't* in this second, event-negative, interpretation.

Tentative forms *couldn't (not)* and *wouldn't (not)* are available for possibility and volition meanings; *shouldn't/oughtn't* to act as tentative equivalents of *mustn't/haven't* to. As with 'deontic' modality, *needn't* appears to show neutralisation of the [\neq tentative] distinction.

Finally, let us consider briefly the possibilities for negation with epistemic modalities, shown in Table 8.6.

Degree of modality	Modality -	Propositional content -	Both -
poss	<i>can't</i>	<i>may not</i>	<i>can't <u>not</u></i>
nec	<i>needn't/don't have to</i>	<i>mustn't</i>	<i>needn't <u>not</u></i>
- poss/nec	<i>won't</i>	<i>won't</i>	<i>won't <u>not</u></i>

Table 8.6: Negation for epistemic modality

As we saw in §8.4.3.4, although *can't* is more usual as an epistemic modality than *mustn't*, Palmer has pointed out that the latter can be used where the idea of 'necessary that not' is stressed. As Palmer (1979: 55) also observes, there is little difference in meaning between modality-negation and negation of the propositional content for the 'confident statement' use of *won't*: that is, 'it is a reasonable conclusion that ... not' is very similar in meaning to 'it is not a reasonable conclusion that'. A similar point is made by Halliday (1970a: 332). Since, however, double negation is possible as in 8.157 (though Palmer does not discuss it), we should probably recognise the possibility of both positions of negation, with *won't* as the realisation for each single-negative type.

8.157 Well, he *won't* not be there, will he?

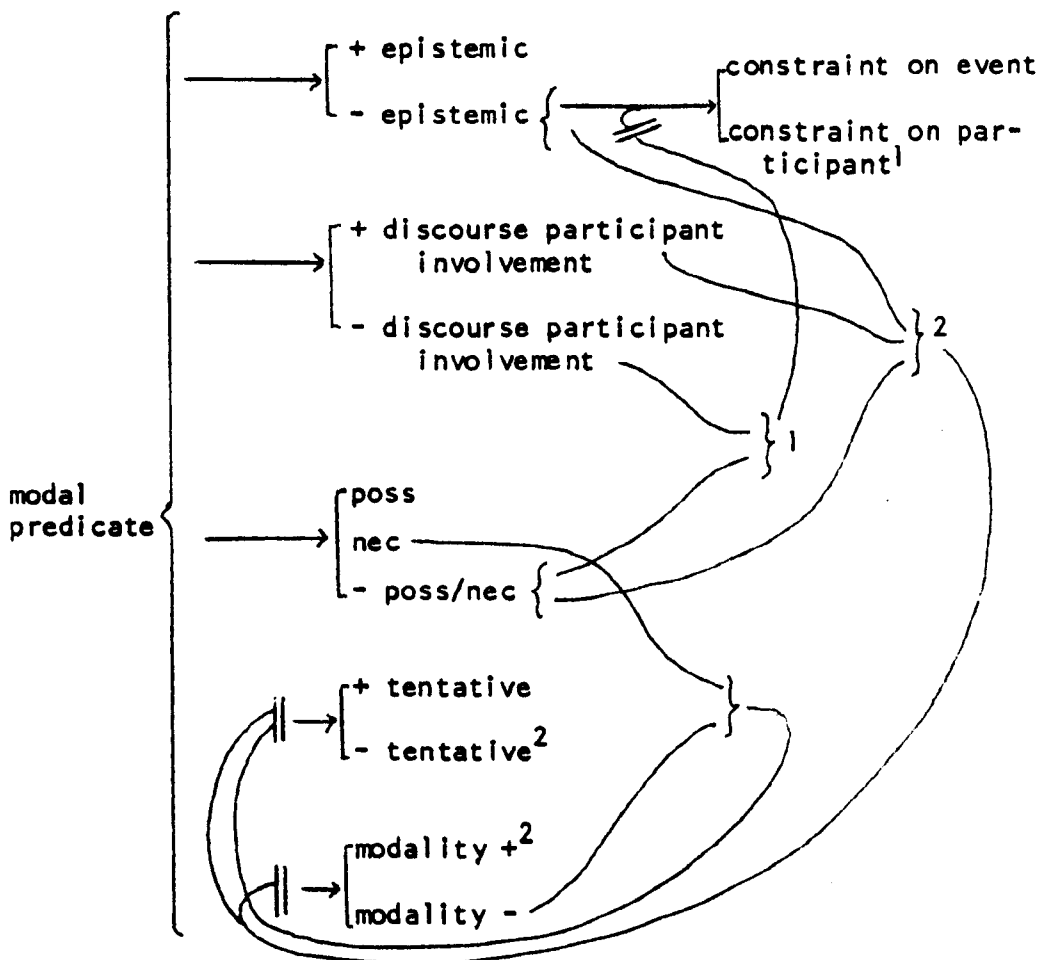
Tentative forms *couldn't*, *mightn't*, *wouldn't*, *shouldn't/oughtn't* to are available for epistemic modality. Once more, it seems that in *needn't* the [\pm tentative] distinction is neutralised.

Before we leave the area of negation, we should note that questions containing negatives are 'conducive', in that they are not entirely neutral as to their expectation of *Yes* or *No* as an answer (see Palmer 1979: 28). Thus, as Palmer (1979: 96) observes, the most normal interpretation of 8.158 would be 'Isn't it the case that John must come with us?'

8.158 Mustn't John come with us?

The speaker is thus suggesting that there are grounds for thinking that the answer should be *Yes*. For a pragmatic explanation of conduciveness, see Hudson (1975: 16-17).

We may now complete our network of modal options, building in the restrictions and neutralisations discussed. Note that since the [\pm tentative] distinction is completely neutralised for [nec] predicates expressed by *needn't*, there is no superscript marking figure on the blocking notation here. The polarity system for the event predicate is not shown here, since it is obviously independent of the modal network itself.



8.4.4 The rules: a formal statement

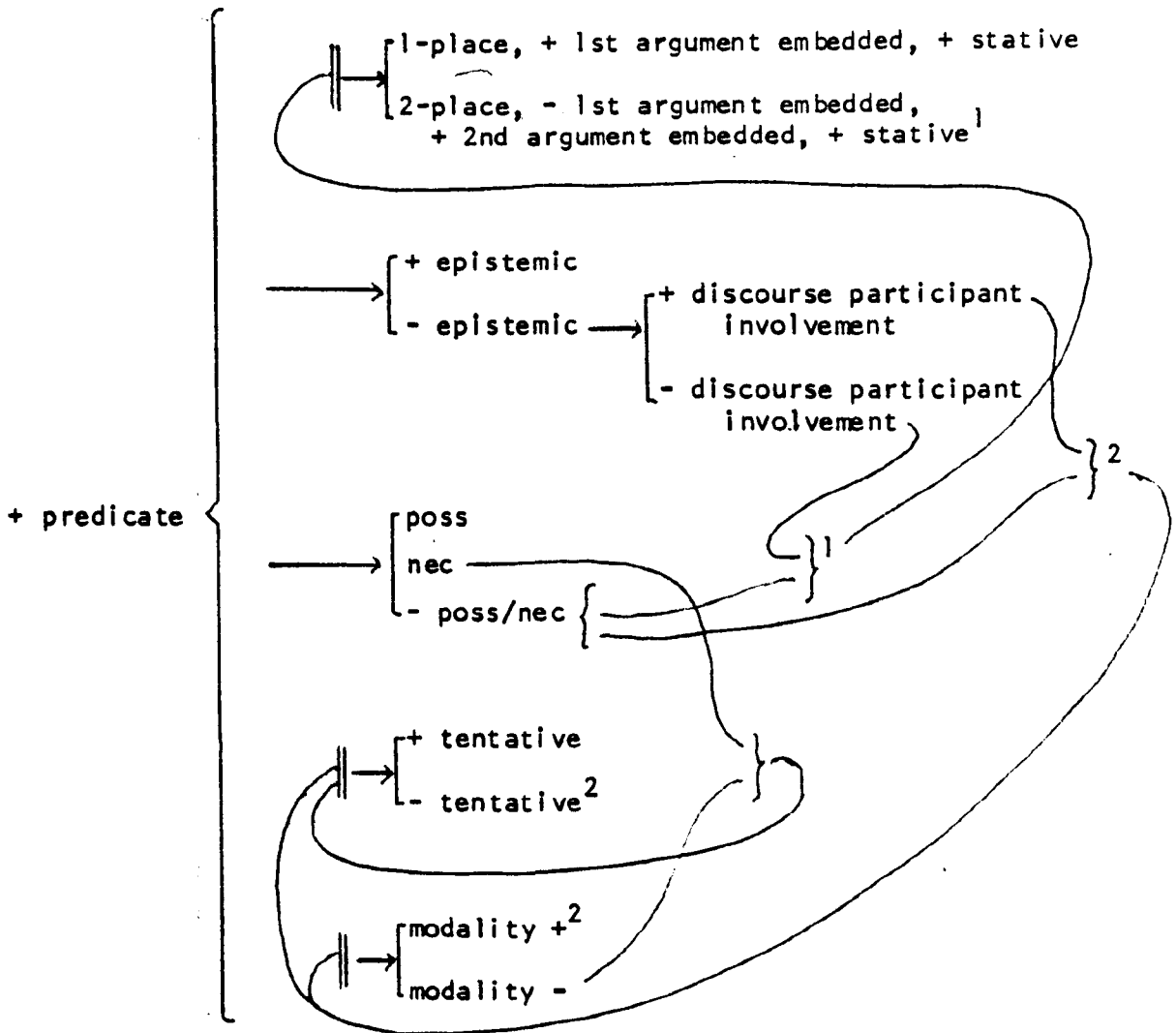
8.4.4.1 Introductory remarks

In this section, we shall first integrate the network built up in §8.4.3 with the general dimensions of predicate classification set up in §8.4.2. We shall then formulate realisation rules generating appropriate semantic structures from the systemic choices.

8.4.4.2. The final network

Our discussion has shown that modal predicates are stative, and either 1-place with an embedded predication as sole argument, or 2-place with an embedded predication as second argument. For simplicity and convenience of presentation, we shall treat these disjunctive entry conditions as terms in a simple system, although they are in reality combinations of terms from the network given in §8.4.2. The various modal systems will then be simultaneous with this 'pseudo-system'.

We can now make some simplifications in the network presented at the end of §8.4.3.7. For epistemic modality, the [\pm discourse participant involvement] system coincides with, and can be replaced by, the 1-place/2-place system, since subjective modal predicates (i.e. [+ discourse participant involvement]) are 2-place, while objective modal predicates are 1-place (see examples 8.116 and 8.117). Also, for non-epistemic modal predicates the [constraint on event/constraint on participant] system can be replaced by the 1-place/2-place system, since when a participant is constrained we have a 2-place predicate, but when the event is constrained the modal predicate is 1-place (see examples 8.138 - 8.140). The final network is therefore as shown overleaf.



8.4.4.3 Realisation rules

In Chapter 7, rules were formulated which would introduce a predicate as obligatory daughter of a predication, the class of predicate being predictable for non-informational and performative predications. The rules are repeated below.

DD1 { + informational } → + predicate
 dependent

DD2 - informational → - stative

DD3 + performative → verbal

Rule DD2 prevents non-informational (i.e. formally imperative) predications from containing a modal predicate, since the

latter are, as we have seen, [+ stative]. The predicate in a modalised predication will therefore be introduced by DD1.

We now need sister dependency rules to introduce the arguments of 1- and 2-place predicates, with or without embedding. The following rules achieve this:

$$\begin{aligned} \text{SD1 + predicate} &\longrightarrow \left\{ \begin{array}{l} \text{- predicate / - 1st argument embedded} \\ \left[\begin{array}{l} \text{predication} \\ \text{dependent} \end{array} \right] / + 1st argument embedded \end{array} \right\} \\ \text{SD2 2-place} &\longrightarrow \left\{ \begin{array}{l} \text{- predicate / - 2nd argument embedded} \\ \left[\begin{array}{l} \text{predication} \\ \text{dependent} \end{array} \right] / + 2nd argument embedded \end{array} \right\} \end{aligned}$$

As in the rules given for the discourse level in Chapter 6, curly braces indicate alternatives, square brackets enclose simultaneously present features. The first rule above, then, states that all predicates have an obligatory argument, which may be an ordinary cluster (i.e. [- predicate]) or an embedded predication. The second rule says that a 2-place predicate has an extra argument, which is again either a non-predicate cluster or an embedded predication, depending on the choice of [\pm 2nd argument embedded]. These rules are not, of course, specific to modal predicates.

For modal predicates, we need to add features which will account for (i) the causative role of the speaker or addressee in a predicate marked as [+ discourse participant involvement], (ii) the restrictions on the nature of the first argument in certain types of modalised predication. The feature addition rules FA1-4 achieve this.

FA1 $\left[\begin{array}{l} + \text{predicate}_{\text{DD1}} \\ + \text{discourse participant involvement} \end{array} \right] : \langle \left[\begin{array}{l} \text{predication} \\ \text{dependent} \end{array} \right] \rangle$

FA2 $+ \text{predicate}_{\text{FA1}, \text{DD1}} : \left[\begin{array}{l} \text{causative} \\ - \text{1st argument embedded} \end{array} \right]$

FA3 $- \text{predicate}_{\text{FA2}, \text{SD1}} : \left\{ \begin{array}{l} \text{speaker} / \left[\begin{array}{l} \text{predication}_{\text{DD1}} \\ - \text{exclamation} \\ - \text{question} \end{array} \right] \\ \text{addressee} / \left[\begin{array}{l} \text{predication}_{\text{DD1}} \\ \text{closed} \end{array} \right] \end{array} \right\}$

FA4 $- \text{predicate}_{\text{SD1}} : \left\{ \begin{array}{l} \text{personal} / \left[\begin{array}{l} + \text{predicate}_{\text{DD1}} \\ 2\text{-place} \\ + \text{discourse part.} \\ \text{inv.} \end{array} \right] \\ \text{potent} / \left[\begin{array}{l} + \text{predicate}_{\text{DD1}} \\ 2\text{-place} \\ - \text{discourse part.} \\ \text{inv.} \end{array} \right] \\ \text{speaker} / \left[\begin{array}{l} + \text{predicate}_{\text{DD1}} \\ 2\text{-place} \\ + \text{epistemic} \end{array} \right] \end{array} \right\}$

Rule FA1 states that a predicate, introduced by DD1 and marked as [+ discourse participant involvement], must have a downgraded predication added to its feature specification. FA2 states that when this downgraded predication is taken through rule DD1, so generating a predicate as daughter, that predicate must be marked as [causative]. We shall not discuss here how such a feature might fit into a general network for predicate classification, since this would take us too far

from our present concerns: rather, we shall assume that such a feature exists, and that causative predicates are 2-place, and always have an embedded predication as second argument (for discussion on this point, see Leech 1969: 207-8). Rule FA3 ensures that the agent of the causation (i.e. the first argument of the causative predicate) is the speaker in a statement, the addressee in a question (it will be remembered from Chapter 7 that statements are defined as [- exclamation, - question]). FA4 deals with the restrictions on the first argument of certain modal predicates: that of a 2-place predicate with discourse participant involvement (i.e. a 'deontic' predicate with constraint on a participant) must refer to a person; that of a 2-place non-epistemic predicate without discourse participant involvement must be [potent]; that of a 2-place epistemic predicate (i.e. subjective modality) must refer to the speaker (see §8.4.3.3).

Finally, we must ensure that certain elements in the structures generated are to be regarded as identical. The identity rules are as follows:

$$11 \quad \text{predicate}_{SD1} \equiv \text{predicate}_{SD2, DD1, SD1} / \left[\begin{array}{l} + \text{predicate}_{DD1} \\ 2\text{-place} \\ - \text{epistemic} \end{array} \right]$$

$$12 \quad \text{predication}_{FA2, SD2} \equiv \text{predication}_{DD1}$$

The first rule states that for any 2-place non-epistemic predicate, the first argument (i.e. the one introduced by SD1) must be identified with the first argument of the embedded predication acting as second argument of the modal predicate,

this argument having been introduced via rules SD2, DDI and SD1. Consider 8.159, with 'ability' *can* (defined as [- epistemic, 2-place, - discourse participant involvement, poss, - tentative, modality +]):

8.159 John can swim twenty lengths.

Informally, we may represent the semantic structure as:

8.160 [For] John • is possible • (John • swim • twenty lengths)

Clearly, *John* must refer to the same person in the modal predication and the embedded predication. The same applies to other types of 2-place non-epistemic predicate realised by modal verbs. As Leech (1969: 215) has pointed out, the semantics of volition does allow for the two arguments to refer to different persons, as in 8.161, provided a periphrastic realisation is used.

8.161 I am willing for him to do it.

Here, however, we are concerned only with the specification of semantic structures realisable as modal verbs, and we shall not, therefore, take examples such as 8.161 into account, though they could easily be accommodated at the expense of slight complication of the realisation rules.

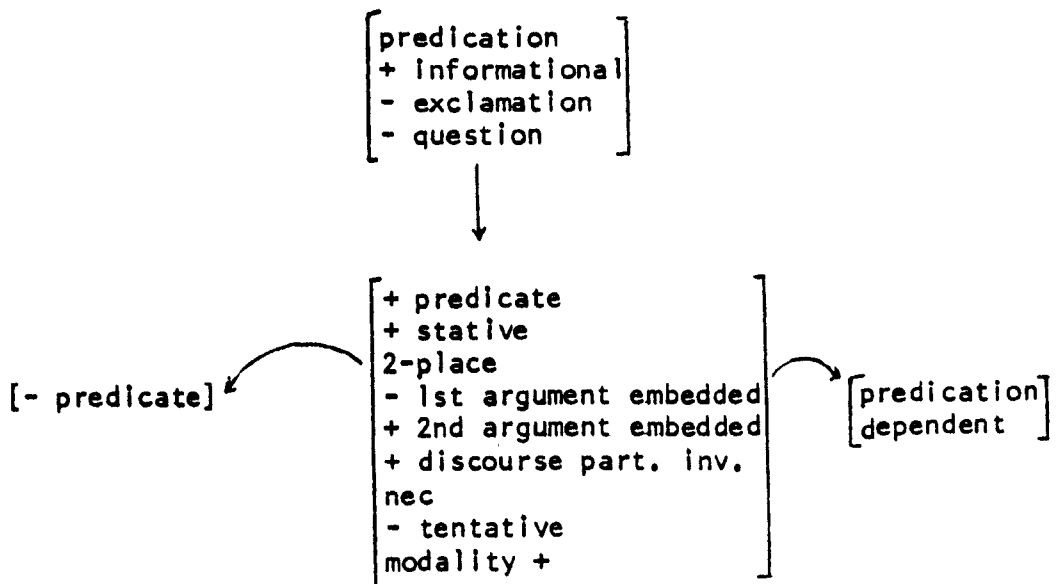
The second identity rule ensures that in the semantic structure of a [+ discourse participant involvement] modality, the predication acting as the second argument of the causative predicate is identified with the whole of the modal predication (see the semantic structures in 8.110, 8.112 and 8.114). The semantic realisation rules are set out together in Appendix A.

8.5 An example derivation

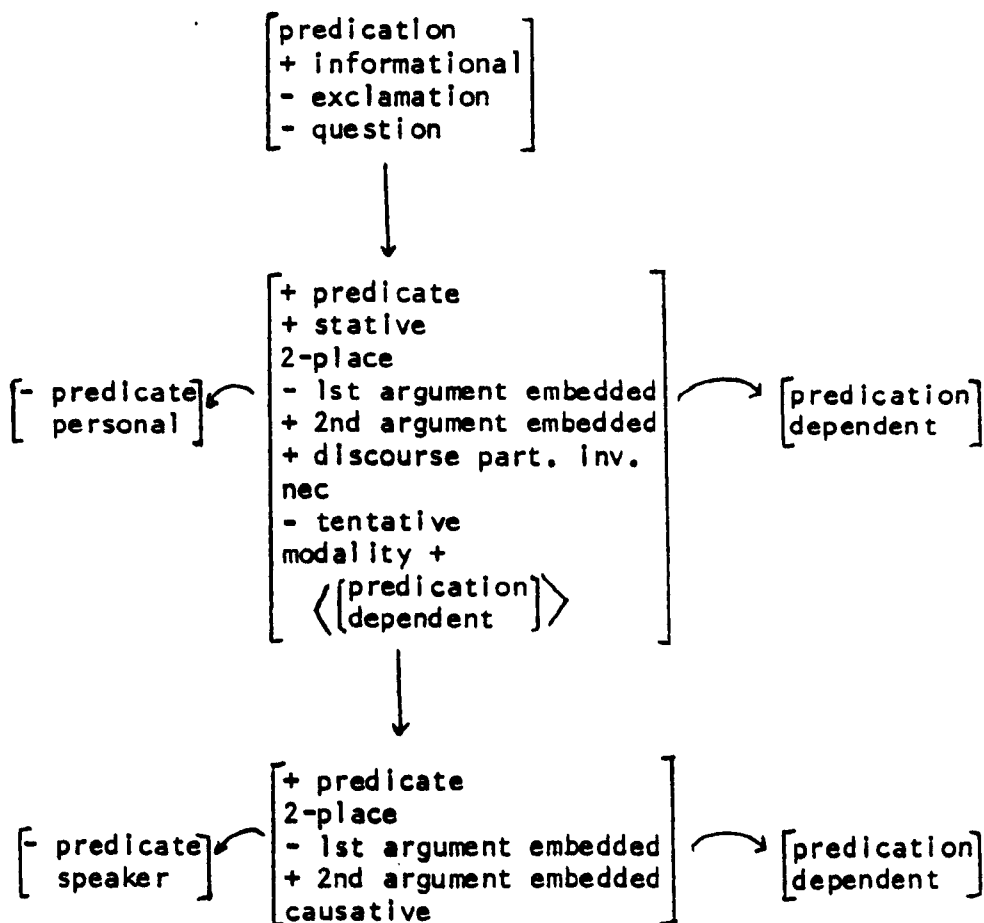
We shall now follow through the complete derivation of the deontic interpretation of sentence 8.162, as far as semantic force and modal meanings are concerned. The syntactic structure of this sentence was derived in §5.3.2.

8.162 You must paint the house.

The predication expressed by this sentence selects the features [- exclamation, - question] (hence also [+ informational]) from the semantic force network. Rule DD1 specifies [+ predicate] as a daughter of the predication. From the modal semantics network we select the following additional features for the predicate: [+ stative, 2-place, - 1st argument embedded, + 2nd argument embedded, + discourse participant involvement, nec. - tentative, modality +]. Rule SD1 now adds [- predicate] as the first argument, and SD2 adds a dependent predication as second argument. So far, then, we have the following semantic structure:



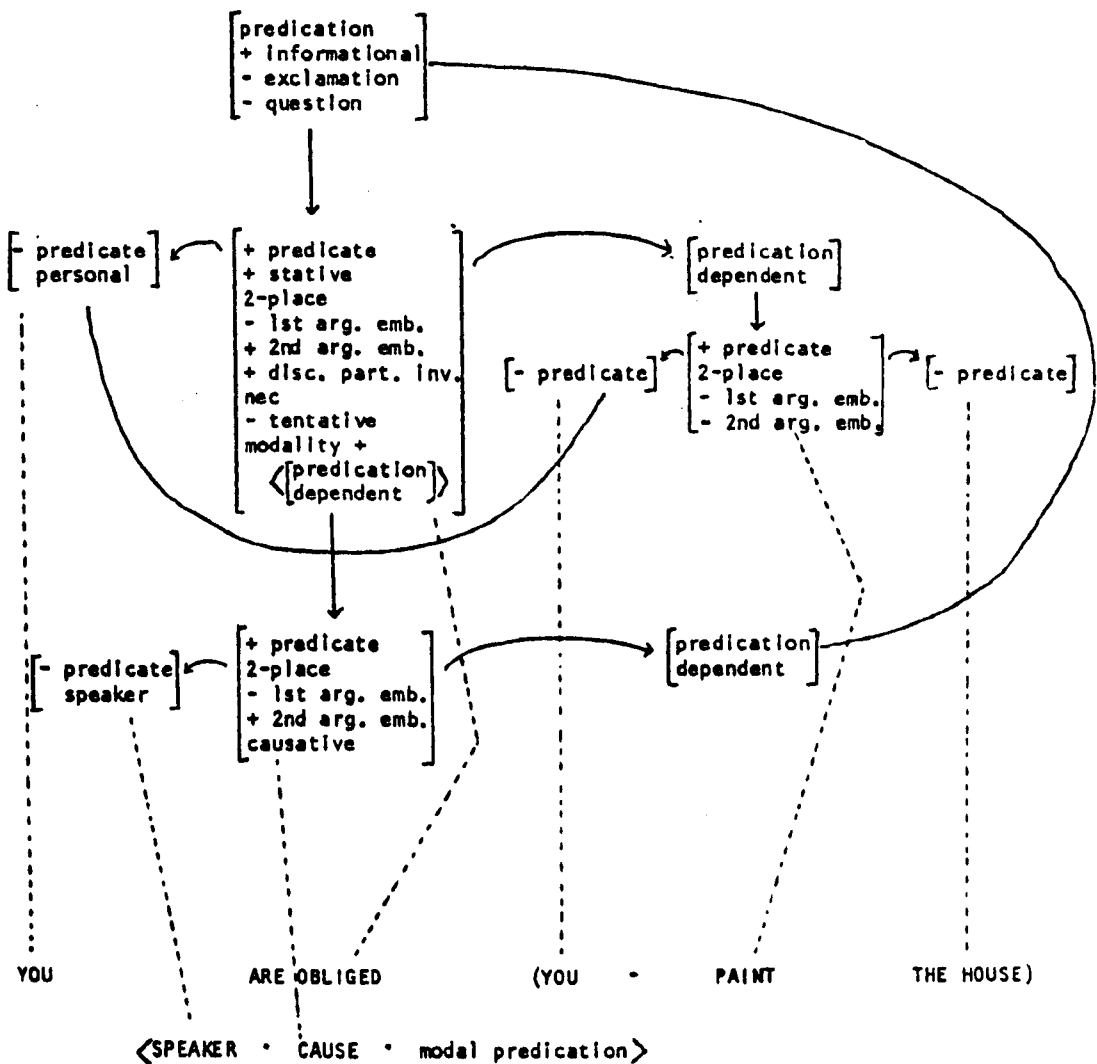
Rule FA1 adds the feature $\langle \begin{matrix} \text{predication} \\ \text{dependent} \end{matrix} \rangle$ (i.e. a down-graded predication) to the predicate, and DD1 operates to give a predicate as a daughter of this predication. FA2 adds the feature [causative] (hence also [2-place, + 2nd argument embedded]), and also [- 1st argument embedded], to this predicate. SD1 operates to add a non-predicate cluster as first argument; FA3 marks this non-predicate as [speaker]. FA4 ensures that the first argument of the modal predicate is [personal]. The structure now looks as shown below.



The predication acting as second argument of the modal predicate itself will correspond to (You • paint • the house). Rule DD1 introduces a predicate as daughter, and we select the features [2-place, - 1st argument embedded, - 2nd argument

embedded] from the general predicate network. SD1 introduces a non-predicate cluster as first argument, and SD2 a further non-predicate as second argument.

The predication acting as second argument of the causative predicate is identified with the whole of the modal predication by I2, so blocking independent choices for this predication. Rule I1 also identifies the first argument of the predication (You · paint · the house) with the first argument of the modal predicate. The final semantic structure is shown below.



8.6 Mapping relations between modal meanings and choices in syntax, lexis and stress placement

We have seen, in the course of our development of the modal predicate network, that the encoding of modal meanings involves the choice of particular modal verbs from the lexicon, the selection of particular syntactic features for the verbs, and sometimes the placement of stress.

Lexically, we may recognise the following items (adopting the usual convention of indicating lexemic status by capitalisation): CAN, MAY, WILL, SHALL, MUST, OUGHT (TO), HAVE (TO), NEED. We shall not treat *should* as representing a separate lexeme SHOULD, since in one context (that of reported speech) *should* stands in direct syntactic relation to *shall*.

Syntactically, all modal semantic predicates, including any downgraded predications attached to them, are mapped on to items with the feature [+ modal], presupposing the less delicate features [+ predicate, + verb, + Aux, + finite, + verb-comp, - passive-comp, - perfect-comp] from Hudson's networks (see §5.3.2). Finer classifications of the verb forms are relevant to the differentiation of individual modal forms: in particular, the features [± past] and [± neg-Aux] are involved. CAN has the [- past] and [+ past] forms *can* and *could*, MAY has *may* and *might*, WILL has *will* and *would*, SHALL has *shall* and *should*, HAVE (TO) has *has/have to* and *had to*. MUST has only the [- past] form *must*, and modal NEED only the [- past] form *need*, although, of course, non-modal NEED has a regular [+ past] form. The status of *ought* is somewhat problematical: historically, it is [+ past], but there is surely no synchronic justification for regarding it as such, and we shall regard it

Table 8.7
Mapping of modal semantics on to syntax, tense and stress placement

epi- stemic	SEMANTIC FEATURES					MODAL ON TO			FORM	COMMENTS
	contracted participles	discourse participles background	modal aux/- slip	modality polarity	irrealis polarity	SIGNAL (+/- dub/h)	LEIS	STRESS (on neg)		
•		•	poss	•	•	-	IMP/COO		imp/oom	can only be interrog.
•		•	poss	•	•	-	IMP/COO		might/could	epistemic possibility
•		•	poss	•	•	-	CAN		can's	
•		•	poss	•	•	-	CAN		couldn't	
•		•	poss	•	•	-	IMP/COO	•	may (pres) might (past)	can only be interrog.
•		•	poss	•	•	-	IMP/COO	•	might's / could's (pres) might's / could's (past)	
•		•	poss	•	•	-	CAN	•	can's not	
•		•	poss	•	•	••	CAN	•	couldn't not	
•		•	poss	•	•	••	CAN	•	couldn't not	
•		•	neg	•	•	-	IMP/COO MAYBE TO		must/may be/ have to (should)	
•		•	neg	•	•	-	SHALL		should	
•		•	neg	•	•	-	SHOULD		ought to	
•		•	neg	•	•	-	NEED		needn't	
•		•	neg	•	•	-	MAYBE TO		don't/don't have to	
•		•	neg	•	•	-	MUST		mustn't	
•		•	neg	•	•	-	SHALL		shouldn't	
•		•	neg	•	•	-	SHOULD		oughtn't	
•		•	neg	•	•	••	NEED	•	needn't not	
•		•	-	•	•	-	WILL		will	
•		•	-	•	•	-	WILL		would	
•		•	-	•	•	-	WILL		won't	
•		•	-	•	•	-	WILL		wouldn't	
•		•	-	•	•	-	WILL		won't	
•		•	-	•	•	-	WILL		wouldn't	
•		•	-	•	•	••	WILL	•	won't not	
•		•	-	•	•	••	WILL	•	wouldn't not	
•		•	poss	•	•	-	CAN		can	
•		•	poss	•	•	-	CAN		could	
•		•	poss	•	•	-	CAN		can't	
•		•	poss	•	•	-	CAN		couldn't	ability, power, etc.

as [- past], as does Palmer (1979: 9). Each modal can be either [- neg-Aux], as in the forms given above, or [+ neg-Aux], with either *n't* or *not*: a possible exception is MAY, where the negative form *mayn't* is unacceptable to many Standard English speakers. In addition to Hudson's polarity distinctions, we need to recognise the possibility of double negation (as in *can't not*).

Stress on the negative *not* is important in distinguishing certain kinds of modal meaning, as we saw in §8.4.3.7.

Table 8.7 presents the mappings on to syntax, lexicon and stress placement, for all possible combinations of modal semantic options.

In addition to the specific mapping rules for the modal predicate, we need a general rule stating that where an identity rule specifies that two elements are to be regarded as the same, these elements must be mapped on to just one syntactic element. We must also ensure that with a 2-place non-epistemic predicate, the argument introduced by SD1, and marked as either [personal] or [potent] by FA4, is mapped on to the subject of the clause. We can do this by making use of the SUBJECT function provided in Hudson's syntactic description:

$$\left. \begin{array}{l} \text{personal} \\ \text{potent} \end{array} \right\} \text{ is mapped on to SUBJECT}$$

We further need to specify that for a 2-place epistemic predicate ('subjective' modality), the argument marked as [speaker] receives zero realisation in the syntax. Consider again 8.115, whose subjective interpretation was represented earlier as 8.116.

8.115 John may be foolish.

8.116 [For] speaker • is possible • (John • be foolish)

We shall not deal in detail here with the mapping of the embedded predication, representing the 'event' or (in the case of epistemic modality) 'proposition', on to its syntactic realisation, since this would take us outside the specific area of modal meanings. We shall simply note that the second argument of this predication will eventually be realised as the main verb of the clause (i.e. the verb-complement of the modal auxiliary) and any complements it may take, as shown informally below for the sentence in 8.159, whose semantic structure we showed as 8.160:

8.159 John can swim twenty lengths.

8.160 [For] John • is possible • (John • swim • twenty lengths)

8.7 Concluding remarks

We would not wish to claim that every occurrence of any modal could be totally accounted for in terms of the description presented here. The present account does, however, go a long way towards satisfying the criteria discussed in §8.2. The distinctions we have proposed, based largely on revision and reinterpretation of Palmer's work, show a high degree of underlying regularity in the complex area of modal semantics in English. There are, however, areas of irregularity, such that gaps exist in the basic matrix of features, and these are built into our network. The non-discreteness of certain modal categories is accounted for in terms of Leech's notion of

'quantitative stereotype'. The restrictions on combinations of modal semantic options with semantic force options are explained in terms of the non-stative nature of modal predicates, which bars them from occurrence in non-informational predications. Finally, the account offered here is the first to give a totally explicit formal presentation of the interaction of the various features (shown within our network), the realisation of the systemic options in semantic structures, and the mapping of semantic features on to the formal level.

PART III

HYPOTHESES AND

HYPOTHESIS TESTING

9: REALISATIONS OF DIRECTIVE ACTS,
AND THEIR SOCIAL PROPERTIES

9.1 Introduction

In Chapter 1, we set out five claims about modalised realisations of directive acts, which we can rephrase, in the light of our discussions, as follows:

- (i) certain kinds of modalised sentence are potentially directive in function;
- (ii) only some modalised sentences are interpretable in this way;
- (iii) some such sentences are ambiguous as to discourse function;
- (iv) the various possible forms of modalised directive have special properties which can be recognised by native speakers, and are predictable from the linguistic features of the sentences concerned: more specifically, such directives can be arranged on a scale of politeness when used in a given social context, and the relative values are predictable from the semantic force and modal meanings of the sentences;
- (v) modalised directives are classifiable by native speakers as orders, requests or suggestions, and these classifications are also largely predictable from the semantic features named in (iv).

In the present chapter, we shall attempt to provide explanations for (i) - (iii), and to make a large number of detailed predictions about the correlations claimed in (iv) and (v).

Firstly, we shall draw on our description of semantic force and modal meanings, to explain why certain modalised sentences are potentially directive, while others are not. In other words, we shall show (at this stage by means of selected examples only) why certain combinations of semantic features, but not others, can act as realisations of the discourse feature [directive]. Secondly, we shall discuss the fact that certain combinations of semantic features can realise more than one discourse feature: i.e., that certain sentences are ambiguous as to communicative function. Thirdly, we shall discuss the notion of politeness, and its relationship to the classification of directives as orders, requests and suggestions. We then relate semantic force options to politeness, in the realisation of directives. Finally, we shall examine each combination of semantic force and modal verb, and predict, for each, (i) whether the sentence is acceptable or unacceptable as a directive (so providing a full account of the restrictions discussed by means of selected examples earlier), (ii) for those sentences which are acceptable, the relative politeness value in a given social context, and (iii) the classification as an order, request or suggestion. These predictions form the basis of the informant testing programme described in Chapter 10.

9.2 Semantic restrictions on directive discourse function

In order to illustrate the principles involved in explaining why certain types of modalised sentence can, and others cannot, serve as directive acts, let us consider the set of sentences 9.1 to 9.4 below.

9.1 You may open the window.

9.2 May you open the window?

9.3 I may ask you to open the window.

9.4 May I ask you to open the window?

We saw in Chapter 8 that the modal *may* can realise a number of combinations of semantic features. All such combinations include the features [poss, - tentative, modality +, non-modal predication +]; the remaining features can be any of the following:

- + epistemic, ± discourse participant involvement (epistemic possibility)
- epistemic, - discourse participant involvement, constraint on event ('neutral dynamic' possibility)
- epistemic, + discourse participant involvement, constraint on participant or event (permission)

The second use of *may*, indicating that it is possible for something to happen, is normally found only in certain registers of English (e.g. guide books, various types of instructional and technical English - see example 8.90 in Chapter 8): we can discount this interpretation in a conversational context.

Example 9.1 is interpretable in either the epistemic or the permission sense of *may*. In the former case, it is unlikely that the sentence could be interpreted directly:

it is difficult to imagine a circumstance in which a statement of the 'possible that' type could be (very indirectly) interpreted as an instruction to do something. The permission meaning, however, is very readily interpreted as a directive: as Lyons (1977: 838-9) has pointed out, a statement that the addressee has the speaker's permission to do something may be used and understood as a directive, if it is assumed that the addressee does not wish or intend to carry out the action. Telling someone that he has the speaker's permission to do something he does not want to do is a way (and, as we shall see, a rather imperious way) of attempting to enforce the speaker's will.

Now consider 9.2. Here, the situation is reversed with respect to 9.1: the permission interpretation is unlikely, the epistemic interpretation favoured (though many speakers would probably prefer *might* for the epistemic use). This is because it makes little sense for the speaker to ask the addressee whether the latter has his own permission to do something (it will be remembered that the addressee is the source of constraint in a deontically modalised question); on the other hand, it is perfectly sensible to ask if it is possible that someone will do something. As we have seen, epistemic meaning is not connected in any obvious way to directive function, so we might expect 9.2 to be generally unacceptable, as a directive, to informants.

Lastly, let us consider 9.3 and 9.4. With the first person pronoun in a statement, as in 9.3, the non-epistemic interpretation is virtually ruled out, since one does not normally state that one has one's own permission to do some-

thing. It is likely, then, that 9.3 will be unacceptable, as a directive, for most native speakers. 9.4, however, is readily interpretable as a question about whether the addressee will allow the speaker to ask him to do something: it is therefore acceptable as a directive.

Similar arguments will be pursued for other modals and semantic force combinations in §9.4.4. The above discussion should, however, serve to illustrate that the semantic properties of sentences, in particular their semantic forces and modal meanings, can be used to predict which types of modalised sentences will be acceptable, and which unacceptable, as directive acts.

9.3 Ambiguity of communicative function

In §4.5, we postulated that the interpretation of utterances as representing particular types of discourse acts involves two parts: the use of conversational principles of a Gricean type to work out the possible illocutionary acts the utterance can convey; and the deduction, from this and the discourse structure rules, of the specific discourse act being performed. Let us consider, in this light, example 9.5.

9.5 Can you open the window?

Discussion of such examples in the literature tends to assume that *can* has an 'ability' meaning here. In view of the multiple semantic specifications which are realisable as *can*, this point requires comment. Although *can* sometimes represents epistemic possibility in questions, this use

seems to be more common with third person subjects and stative verbs, as in 9.6.

9.6 Can it be true?

The permission interpretation of *can* is ruled out on the grounds that it makes little sense to ask the addressee if he has his own permission to open the window. This leaves us with the 'dynamic' possibility meanings (i.e. [- epistemic, - discourse participant involvement]). The sentence appears not to show voice neutrality:

9.7 ?Can the window be opened by you?

The semantic interpretation [- epistemic, - discourse participant involvement, constraint on participant] (together with the features [poss, - tentative, modality +, non-modal predication +], common to all occurrences of *can*) is thus favoured. As Leech & Coates (1979: 83) have pointed out, the 'ability' interpretation of *can* (which is defined by the selection expression proposed) is favoured when the subject refers to a possible agent, and when the main verb denotes a physical action or activity, both conditions being satisfied in our example.

Having decided on a semantic specification for the modal (and, of course, on closed question semantic force for the predication as a whole), we may now consider what illocutionary acts could be performed by an utterance of 9.5. Searle (1975: 73-4) has given a detailed analysis of how conversational principles apply to sentences of this kind. Applied to our example, the basic argument runs as follows. The speaker has asked a (semantic) question about the hearer's ability to open the window. The hearer assumes

that the speaker is observing the Gricean Co-operative Principle, and therefore that his utterance has some point to it. There are circumstances in which 9.5 could be taken as a genuine attempt to elicit information: for instance, as Searle observes, this might be the case if the speaker were an orthopaedic specialist interviewing a patient with an arm injury. If, however, the hearer can find no reason for the speaker wanting to know the answer, or if it is obvious that the speaker already knows the answer, then it is unlikely that the utterance was intended simply as an informational question, and the addressee must conclude that extra information is being conveyed. Since a preparatory condition on commands/requests is that the hearer be able to do what is asked of him, an affirmative answer to the question would show that this precondition is satisfied. Especially if the physical conditions in the room are such as to make it desirable for the window to be opened, it is likely that the speaker is referring to the preparatory condition for a request involving an act which he wants the hearer to perform. As we saw in §3.3.1.3, because *Can you ...?* is a standard way of indirectly conveying a request, the implicature may be 'short-circuited', so that once the hearer has worked out that the utterance is probably not a straight informational question, the remaining implicatures do not actually have to be calculated.

Principles of this kind, then, allow a decision as to whether the illocutionary force of the utterance is likely to be that of information-seeking or request: in other words, we have (provisionally, at least) resolved the potential

ambiguity of speech act function inherent in 9.5. This is not, however, the whole of the interpretation process since, as we saw in §4.5, a given type of illocutionary act may often serve more than one possible discourse function. As we showed in §6.3.3, the structural possibilities for eliciting and directing moves are identical except for the nature of the head act:

starter or
preface

elicitation or
directive

comment or
prompt

If, then, an utterance of 9.5 is the sole act in the speaker's move, or if it is preceded by something which can act as a starter or preface, and/or followed by something which can be taken as a comment or prompt, then we can deduce that the discourse value of the utterance is the same as its illocutionary value (i.e. it is an elicitation or a request-type directive, depending on which illocutionary type is more likely). Only if the utterance does not fit into the head structural slot in this way is it necessary to find an alternative, secondary discourse function for it; with an example such as 9.5, such an eventuality is rather unlikely.

We see, then, that there may be potential ambiguity in the illocutionary acts which a given utterance can perform, and in the specific discourse function of the act. The former ambiguity can normally be resolved by reference to principles of a Gricean kind, the latter by the rules for discourse structure.

9.4 Politeness and the realisation of directive acts

9.4.1 The status of politeness

It was pointed out in Chapter 1 that English offers a wide range of realisations for directives, and that the choice of a particular realisation is conditioned by the social context. A child who said 9.8 to his mother or teacher would be regarded as impertinent, as would a raw recruit who spoke to his commanding officer in the terms of 9.9.

9.8 Give me that book.

9.9 Pass that rifle.

A bare imperative of this kind would also seem impolite when addressed to a person one had just met for the first time, and something like 9.10 or 9.11 would be much more usual:

9.10 I wonder if you'd mind passing me that book.

9.11 Could you pass that book (, please)?

Conversely, however, it would seem laughably over-polite for the drill sergeant to address his recruits with 9.12, and such a directive would certainly be interpreted as heavily ironic in this context.

9.12 Could I ask you to stand at ease?

It seems, then, that the selection of an appropriate form of directive involves considerations of politeness, and that what counts as acceptably polite depends on the social context. The concept of politeness has been invoked by a number of writers in the area of indirect speech acts.

Heringer (1972: 13) discusses what he calls a politeness condition on requests, namely: "that the speaker believes his addressee would not object to doing what he is being

asked to do." In the course of Heringer's discussion, other more specific politeness conditions are formulated, such as the following, postulated to account for directives involving *may*:

In settings where he is being deferential to the addressee, the performer of an illocutionary act K believes that he has permission of the addressee to perform the volitional acts involved in the carrying out of K. i.e., that the addressee will allow him to carry out these acts. (Heringer 1972: 29)

Such politeness conditions are a subset of the 'intrinsic conditions' on illocutionary acts (see §3.3.2) concerned with the participants' affective 'set' for the act being performed. For Heringer, requests are differentiated from commands only by virtue of the politeness conditions attaching to them.

Green (1973), in her discussion of 'how to get people to do things with words', invokes the notions of authority and power to account for the social distribution of orders, requests, demands, suggestions, pleas, and the like, again noting the implications of politeness or impoliteness in the use of these types of directive in particular social contexts. She points out that orders are differentiated from the other categories in that the speaker believes he has authority to control the volitional behaviour of the addressee (see also Searle's (1969: 66) conditions for ordering), so that orders are most commonly given by those in authority, to their subordinates. On the other hand, "requests are the method used in polite society for getting someone to do something" (Green 1973: 62). Pleas are the opposite of orders, in that

they are polite, and made from a position of subservience, with no particular expectation that they will be granted. Suggestions, Green points out, assume neither authority nor subordinacy, and are essentially concerned with what is best for the addressee, rather than with what the speaker wants done. A similar point is made by Lee, who claims that "suggestion-type imperatives do not have the pragmatic presupposition of agent-authority" (Lee 1975: 107).

Lakoff (1973, 1974), in a plea for the study of pragmatic phenomena, puts forward two general rules of 'pragmatic competence': be clear, and be polite. The clarity rule is, Lakoff suggests, encapsulated in Grice's rules of quantity, quality, relevance and manner (see Grice 1975, 1978, and §3.3.1.1 of the present work). Lakoff points out that these 'conversational rules' are frequently flouted, and suggests that one reason for this is that politeness is, in many social contexts, at a higher premium than clarity, so that the politeness rules take precedence over the clarity rules. Lakoff puts forward three politeness rules (1973: 298; 1974: 19):

1. Don't impose
2. Give options
3. Make addressee feel good - be friendly.

Rule 1 enjoins the speaker not to intrude into the affairs of others, not to use or mention certain of the addressee's possessions without permission, and so on. Various linguistic devices can operate in the observance of this rule: distancing by means of impersonal forms, technical terms, the passive, the use of more formal terms of address, the

avoidance of forms such as *well*, *y'know*, and so forth.

Rule 2 says that it is polite to leave options of interpretation open for the addressee, particularly if the topic of the remark could be construed as in any way distasteful to him. As we shall see, this rule is of central importance in the analysis of directives, where the speaker is seeking to impose his will on the addressee, and so is in reality flouting Rule 1. The use of euphemisms is also related to Rule 2: the hearer is, theoretically, free to avoid the 'unpleasant' meaning by interpreting the euphemism at its face value. Rule 3 is designed to make the addressee feel wanted; its observance produces a sense of camaraderie (which would, of course, be inappropriate in certain situations).

Lakoff also discusses cases where two of the three rules conflict, and suggests that although the rules themselves are probably universal, the order of preference involved in the resolution of clashes may be culturally determined. She also claims that the first rule of pragmatic competence, 'be clear', consisting of Grice's maxims, can be regarded as a special case of the politeness rule, since clarity of presentation will avoid wasting the addressee's time, and so imposing on him.

Leech (1977a) also seeks to incorporate notions of 'tact' (correlating with indirectness) into a basically Gricean framework. The Tact Maxim is invoked where strict conformity to the basic Gricean maxims would produce impoliteness and so disrupt social relations. Invoking Brown & Gilman's (1960) notions of solidarity and power, Leech

suggests that tact is needed where the power relations between speaker and hearer might lead to conflict, and the solidarity relations are insufficient to counter this.

Mohan (1974) also uses the concept of politeness to build on Grice's conversational principles. He argues that when an indirect speech act is performed, principles additional to conversational postulates are required in order to justify the conveying rather than the direct stating of what is being put across. Such justifying principles take the form of secondary implicatures, accounted for by reference to a set of non-conversational maxims, some of which are based on politeness. Thus, for example, the potential directives 9.13 and 9.14 are related to different secondary implicatures, as shown below.

9.13 (= Mohan's 21) You can open the window.

based on:

SAY (a, b, ABLE (b, Q))^{*} → ASSUME (a, ACCEPT
(b, Q))¹

(a assumes that b will agree to open the window)

9.14 (= Mohan's 22) Can you open the window?

based on:

ASK (a, b, ABLE (b, Q))^{*} → PERMIT (a, REFUSE
(b, Q))

(a permits b to refuse to open the window)

On this account, 9.14 theoretically allows the addressee to refuse to do what is being asked of him, and so is polite, while 9.13 assumes he will do it, and so is relatively

¹ For explanation of the notational conventions used in stating implicatures, see §3.3.1.2.

impolite. The close relationship with Lakoff's 'Give options' rule is obvious, although the mechanism for incorporation of the rule within an account of indirect speech acts is more fully worked out in Mohan's study.

Other writers on indirect speech acts and on the modals have also invoked politeness considerations. Fraser (1973: 301) proposes, as part of the deep structure of requests, a category of 'mitigation marker', which "stands for a class of morphemes which indicate the politeness level of the sentence." Searle (1975: 76) also claims that "politeness is the most prominent motivation for indirectness in requests", and Lee (1975: 105) states that "an important factor in determining the different sentential types of the same illocutionary force is the deference condition in speech acts". Ney (1976: 14) also calls upon the notion of politeness in distinguishing various request forms.

The concept of politeness as an important factor in the selection of appropriate forms of a speech act is thus widely invoked in the literature; it is not, however, without its critics. Sadock (1974: 113-4), and Lyons (1977: 748-9) argue against Heringer's analysis of requests as deferential commands. Sadock points out that certain requests are inherently rude because of their lexical content; Lyons claims that a request can be made politely or impolitely, and that an impolite request is not a command. Davison (1975: 149 ff.) offers a number of arguments against politeness as a key factor in indirect speech acts: politeness is hard to define, and is a property of individuals rather than of situations; polite people do not always use indirect

speech acts, and not all utterances in polite discourse are indirect; utterances can be polite without being syntactically marked for it; politeness involves pleasant and unpleasant things, but indirect speech acts are involved mainly with the breaking of bad news; some illocutionary acts can be performed indirectly, others cannot, and politeness cannot explain this.

Certain of the arguments summarised above are rather flimsy: politeness is not exclusively a property of either individuals or situations, but is rather a property of the behaviour (both linguistic and non-linguistic) of individuals in situations of communication; politeness can certainly be shown in ways other than syntactic (e.g. lexically or intonationally), but this merely means that politeness is not itself a syntactic matter. Where the critics are correct is in pointing out that we cannot regard politeness as an inherent property of sentences, forming part of some syntactic or semantic deep structure. It would be quite wrong to think of the relationship between the form of a speech act and politeness as simple or unidimensional. Indeed, in the area of directives, the work of Ervin-Tripp (1976) has shown very convincingly that there is a complex interplay of factors (including familiarity, authority status, territorial location, difficulty of the task required, the assumption of rights and duties, and the likelihood of compliance) at work in determining the selection of appropriate forms of speech act. Politeness itself can be regarded as a kind of mapping function between these various social contextual features and the realisations of speech acts; it is thus a complex concept.

This should not, however, lead us to abandon the notion of politeness scales in the analysis of directives, as Ervin-Tripp, Sadock and Davison seem to advocate. For it is surely the case that in a given social context and for a given propositional content, certain realisations of directives will be interpreted as more polite than others. Furthermore, we may be able to make predictions about the way in which politeness judgments are likely to change if certain features of the social context or propositional content are altered. Leech (1977a) has proposed that three dimensions within a 'pragmatic space' interact to determine the degree of 'tact' required in a given social context. The degree of tact needed increases with the degree of power of addressee over speaker, with social distance between the participants, and with the disadvantage or 'cost' of the act to the addressee. This means, for instance, that a directive which would not appear impolite when addressed to a person of lower power, known well to the speaker, might well seem impolite if addressed to a social equal who is merely an acquaintance, and that a directive which might be appropriate for the securing of some trivial service could appear insufficiently tactful if the cost to the addressee were higher.

In the present work, we shall take as a 'base line' context the case of acquaintances (not close friends) of the same age, sex and power status, involved in the giving and receiving of directives whose propositional content is not likely to be of high cost to the addressee, e.g. the act of opening a window. This 'neutral' social context will be the basis of our discussion in the following sections, and of

the experimental testing of hypotheses relating to politeness reported in Chapter 10.

9.4.2 Politeness and the classification of directives

We may now make predictions regarding the relationship between politeness, within our 'neutral' social context, and the classification of directives as orders, requests or suggestions. We predict that directives classified independently by informants as orders would be regarded as impolite, while those classified as requests would be considered more polite. We have seen that in a suggestion, unlike the case of an order or request, authority is not at stake. The maker of a suggestion is, in a sense, trying to get the addressee to do something by influencing his opinion in a certain direction, but the action envisaged is in the addressee's interest, rather than being the wish of the speaker. Since the speaker is not trying to get anything done for his own ends, the main motives for politeness are absent. If there is any 'softening' at all in suggestions, it is likely to result from the speaker's unwillingness to appear presumptuous in putting forward ideas for the addressee's consideration. We would predict, then, that directives classified as suggestions would be neither particularly polite nor impolite.

We can also make predictions regarding the range of politeness available within orders, requests and suggestions. Although, in situations where orders can properly be given, politeness is often not expected, it is also true that, except perhaps in very strongly institutionalised settings, people tend to avoid too extreme an exercising of their

authority, or at least appear to do so. We might expect, then, that directives exist which, although interpreted as orders, are still slightly softened in some way, though we shall expect a rather narrow range of politeness. Requests, on the other hand, are the vehicles *par excellence* of directive function, and might be expected to show a wide range of politeness, from fairly neutral to extremely polite. If, as we have suggested, politeness is not really at issue in suggestions, we might expect a small range (possibly even the smallest range) of politeness here. We thus predict that the range of politeness available will vary as follows:

requests > orders > suggestions

9.4.3 Semantic force and politeness in the realisation of directives

It seems to be generally agreed in the literature that for a given propositional content, modalised questions are normally more polite than the corresponding statements, as realisations of indirect directives (see Heringer 1972: 43, Lakoff 1974: 44 ff., Mohan 1974: 454, Forman 1974: 166). The reason for this is quite simple: a question allows (or at least appears to allow) the addressee the option of refusal, while a statement does not. Questions thus conform to Lakoff's 'Give options' rule, but statements do not. Green's claim (1973: 62) that requests are most often realised as whimperatives also accords with these observations. We would thus predict that in most social contexts, and certainly in our 'neutral' context, 9.16 would be more polite than 9.15, and 9.18 more polite than 9.17.

9.15 You will open the window.

9.16 Will you open the window?

9.17 You can open the window.

9.18 Can you open the window?

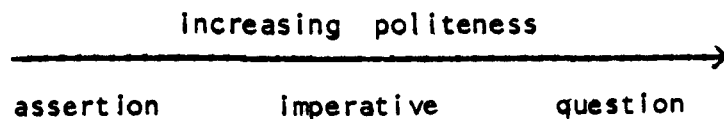
Questions are also predicted to be more polite than the corresponding forms with Imperative syntax and 'non-informational' semantic force, since again the latter cut off the addressee's options (see Searle 1975: 74). Imperatives to which question tags have been added (that is, predications marked semantically as [- informational, + question tag modification]) would seem to fall between straight imperatives and Interrogatives. As pointed out by Lakoff (1972a: 914) and Lyons (1977: 749, 766) the tag question still allows the hearer the option of refusal. We might thus expect predications with the features [- informational, + question tag modification] to be more polite than those marked simply as [- informational] but less polite than those with the feature [closed] (i.e. straight questions). The polarity of the tag might also affect relative politeness. Lyons (1977: 766) suggests that a negative tag is used when the speaker has reason to believe that the addressee may not comply, and that it is commonly associated with paralinguistic features indicating impatience or annoyance. We might also suggest, however, that a speaker may, for the sake of politeness, pretend to think that the hearer will not be willing to demean himself by doing what is required of him, in which case a negative tag would be more polite than a positive. This also fits in with Lakoff's (1972a: 914) claims for invitations, namely that 9.19 is more polite than 9.20.

9.19 (= Lakoff's 13) Come in, won't you?

9.20 (= Lakoff's 16) Come in, will you?

We can thus discern conflicting factors in the interpretation of negative as against positive tags, and presumably the same factors arise for positive and negative whimperative questions, too. We shall make no prediction here about their relative politeness; however, this is clearly an area where the results of informant testing should prove particularly illuminating.

Another such area is the relationship between imperative-form directives and modalised statements. Feldman (1974: 156) and Householder (1971: 86-7), for example, treat modalised declaratives as 'softened' or 'polite' commands. Lakoff (1974: 46) argues that although it is demeaning to be expected to believe someone when a statement is made, it is even more demeaning to be expected to comply with a direct imperative, which leaves no options. Mohan (1974: 454), however, shows that while statements have an impolite secondary implicature, imperative-form sentences have no such implicature, polite or impolite. He thus predicts the order (using his terms):



Again we have a situation where two approaches yield different predictions, which can be tested by informant methods.

Let us turn now to the politeness ranking of performatives and embedded performatives. Since straight performatives, such as 9.21 and 9.22 below, are the most transparent

kind of directive, making the nature of the speech act absolutely explicit, we might expect those with a 'command' performative to be the least polite directives of all in a neutral, non-status-marked situation.

9.21 I order you to open the window.

9.22 I tell you to open the window.

Performatives with *request* or *ask*, however, would seem to be unambiguously requests, and so would be expected to be more polite than imperatives or modalised declaratives, but less polite than whimperatives, on account of their greater degree of explicitness.

9.23 I request you to open the window.

9.24 I ask you to open the window.

The performative can also be embedded inside a modal construction, as in 9.25 - 9.27.

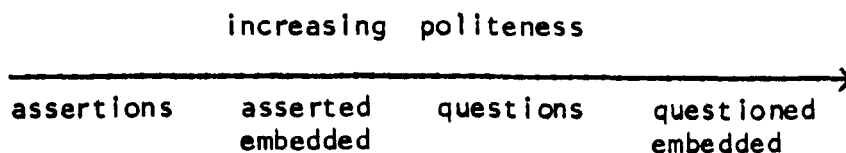
9.25 I must ask you to open the window.

9.26 I can ask you to open the window.

9.27 Can I ask you to open the window?

As we shall see in §9.4.4.4, forms with performative verbs embedded to *must*, as in 9.25, have been interpreted in terms of the speaker's attempt to excuse himself for performing the speech act. If this interpretation is valid, we should expect these particular forms to be more polite than the corresponding bare performatives. Examples such as 9.26 and 9.27 will also be discussed further in §9.4.4.4, where individual modal types are dealt with; meanwhile, we should note that the question semantics of 9.27 adds a degree of politeness by allowing the addressee the option of refusal, as in whimperative questions, while the corresponding statement,

9.26, allows no such options. Mohan (1974: 454) predicts that questions with embedded performatives, such as 9.27, will be more polite than the corresponding whimperative questions, because the latter solicit acceptance (and so are a minor infringement on the rule 'Don't impose') while the former do not. Furthermore, a statement with an embedded performative, such as 9.26, does not carry the impolite secondary implicature shown by the corresponding modalised second person statement without any performative; the form with embedded performative is thus predicted to be more polite. Mohan therefore predicts the following politeness ordering for the various types:



Putting together the various strands of our discussion on the relationship between semantic force and politeness in directives, we arrive at the composite picture shown overleaf. This picture is, however, complicated by the fact that, as we shall see in the following section, different modals can themselves contribute different degrees of politeness to directives in which they occur.

We may also make predictions concerning the sub-classification of the above directive types as orders, requests or suggestions. We might expect that those forms whose semantic properties allow the option of refusal (i.e. question-type directives and tagged types, together with performative types

i n c r e a s i n g p o l i t e n e s s



{ semantic force (imperative syntax) statement	'non-informational'	statement with	statement with	'non-informational'	question	question with
		embedded command	embedded request	semantic force,	(positive)	embedded
		performative	performative	with question tag		request
				modification		
				(positive)		

(Bracketing indicates that no predictions are made concerning
the politeness ordering of the bracketed items)

involving request verbs) would be interpreted as requests, while those which do not allow such an option (imperatives, modalised statements, statements with embedded command performatives, bare command performatives) would be interpreted as orders. Again, however, the influence of individual modal meanings is important, so that certain forms are likely to be interpreted as suggestions, rather than as orders or requests, as discussed below.

9.4.4 Modals in the realisation of directives

In this section, we shall take each semantic force type in turn, and attempt to answer three questions concerned with the role of the modals in the realisation of directives. Firstly, we must ask which modals are acceptable, and which are unacceptable, in directives with particular semantic force types, and we must try to account for unacceptability in terms of the semantics of the modals concerned. In other words, we shall be predicting the possible mappings of directive acts on to the modal semantic categories discussed in Chapter 8. Secondly, we must attempt to predict, again from the semantics of the modals, which modals will be most polite, and which least polite, when combined with a given semantic force to realise a directive in our neutral, non-status-marked social context. Thirdly, we shall suggest likely categorisations of modalised directives as orders, requests or suggestions. In practice, the three aspects are linked, and will be discussed together.

9.4.4.1 Modals in directive statements

Various authors (see Boyd & Thorne 1969: 59, Lakoff 1972a: 926, Mitchell 1974: 18) treat statements containing second person *will* as commands, though some soften the force by writing in terms of a "polite command" (Householder 1971: 86) or "request or command" (Antinucci & Parisi 1971: 37). Heringer (1972) accounts for this type of indirect speech act in terms of the following rules (see also §3.3.2).

An illocutionary act K is performed by asserting that an intrinsic condition on K holds or by questioning whether an intrinsic condition on K which is a matter of belief only (not knowledge) holds. (1972: 28)

The performer of K believes that all acts involved in the performance of K (save for K itself) will occur in the future. (1972: 34)

As pointed out by Forman (1974: 167), it would be imperious of the speaker to assume that he knows better than the addressee (or rather, we might wish to say, just as well as the addressee - see §7.3) whether the addressee will in fact carry out the action concerned.

There is, however, a second possible explanation for the impoliteness of statements with *will*. If we postulate that *will* here has a volitional meaning (i.e. has the features [- epistemic, - discourse participant involvement, constraint on participant, - poss/nec] rather than indicating the confident (epistemic) prediction of a future event, then it is clearly impolite to assume that the addressee is willing to do what is being asked of him. Presumably we should want to propose the same semantic interpretation of *will* in

statements as in the corresponding whimperative questions, which are analysed in terms of volition by, for example, Quirk *et al.* (1972: 100), Leech (1971: 78), and Palmer (1974: 109). As evidence for the volitional interpretation, we may cite the fact that, as pointed out by Palmer (1974: 107), the tentative form *would* is not used in connection with futurity; it is, however, standardly used in whimperative requests. Against this, it could be argued that such uses of *would* and other 'hypothetical' modals are in reality conditional, with an implied *if*-clause of the type ... *if I asked you to*. However, the past tense forms of non-modal verbs can be used with tentative meaning in clearly non-conditional cases such as 9.28, and it would seem preferable to propose a unitary explanation for all tentative or hypothetical uses of the past tense.

9.28 I wanted to ask you if you could spare a minute. We therefore propose that *will* (and *would*), in directly used statements, as well as in whimperatives, have a volitional meaning. Indeed, Heringer himself proposes that indirect speech acts such as 9.29:

9.29 (= Heringer's 3.39n) Would you (be kind enough
to) let me leave?

are based on the following intrinsic condition:

In settings where he is being deferential to the addressee, the performer of K believes that the addressee is willing for all acts involved in the performance of K to take place, i.e., that the addressee does not object to any of the acts involved in K occurring. (Heringer 1972: 35)

If our interpretation of *will/would* as volitional is correct,

then Heringer is wrong to claim that the above condition is deference-based, since *will*-statements are, we have proposed, impolite.

The possible use of *would* in directive statements seems not to be discussed in the literature, and we can indeed suggest an explanation for its probable unacceptability. The tentative nature which is part of the semantic specification of *would* is incompatible with the very strong position taken by the speaker in assuming the addressee's own willingness to do what is asked of him. If it does indeed turn out to be the case that informants reject *You would ...* statements as directives, this provides further evidence for treating *would* as volitional here rather than conditional; for there is nothing semantically irregular about a sentence such as 9.30:

9.30 You would do it if I asked you to.

and one would therefore expect, under the conditional hypothesis, that the *if*-clause would be deletable as in a whimperative.

Second person statements with *can* are regarded as 'tactful' or 'mild' imperatives by Leech (1969: 222, 1971: 71) and Zandvoort (1975: 65). Leech, however, also claims that they are appropriate only to situations involving familiar participants, and would appear rather impolite if used to a stranger. If this is so, we might expect *can*-statements to be regarded as somewhat impolite in our neutral non-status-marked social situation involving acquaintances. On the other hand, Forman (1974: 167) classifies *You can ...* directives as suggestions, which, we have claimed, are neither

particularly polite nor impolite. We shall now propose an explanation for this diversity of interpretation, in terms of the multiple semantic function of the modal *can*. This modal form does not normally occur with epistemic meaning in statements, so we can assume that in *You can ...* constructions it is to be marked as [- epistemic]. As we saw in §9.3, three types of non-epistemic meaning are realisable as *can*, and are differentiated as follows:

[+ discourse participant involvement] (permission)

[- discourse participant involvement, constraint on participant] (ability, power)

[- discourse participant involvement, constraint on event] (general 'dynamic' possibility)

If the modal is interpreted in terms of permission, the very stating of this permission implies the addressee's need to obtain it. The speaker can thus be seen as putting the addressee in a humble position, and the directive will be interpreted as somewhat impolite. If *can* is seen as signalling ability or general possibility, however, there is no humbling of the addressee; rather, the speaker is pointing out to the hearer what it is possible for the latter to do. Heringer (1972: 20), by explaining *can*-directives solely in terms of the following intrinsic condition on ability, misses the permission interpretation, and so is unable to account for multiple categorisation of such directives:

The performer of an illocutionary act K believes that the performers of all the volitional acts involved in the carrying out of K are in fact able to perform those volitional acts.

In view of the complex semantic nature of *can*-statements, we predict that some informants will classify them as orders and rate them as relatively impolite, while others will classify them as suggestions and rate them as neither particularly polite nor impolite.

You could ... statements are regarded as suggestions by Forman (1974: 167) and by Boyd & Thorne (1969: 73), while Leech (1969: 237, 1971: 121) sees them as a tentative version of the 'familiar instruction' use of *can* discussed above. Diver (1974: 345) places *You could ...* at the bottom of his 'Scale of Imperativeness', below statements with *must*, *should* and *ought*. As with *can*, ability and general possibility readings are available for *could*; however, the tentativeness expressed in this modal can be seen as clashing with the strong position involved in the stating of permission by the speaker, so that we should not expect a permission interpretation of *You could ...* statements. We shall, therefore, predict that such statements will be classified predominantly as suggestions, and will be rated as neither particularly polite nor impolite, though somewhat more polite than statements with *can*. It should be noted that Heringer's claim (1972: 43), that tentative modals are not used in assertions acting as indirect speech acts, is contradicted by the existence of directives with *could*.

Second person statements with *shall* are discussed rather little in the literature, though Jespersen (1932: 270) states that they can be used as commands, and both he and Twaddell (in the later edition of his book, 1965: 15) regard them as less polite than the corresponding statements with *should*.

You shall ... is, in fact, rather rare in present-day English, probably because its meaning (viz. that the speaker guarantees a future action or event involving the addressee) is unacceptable socially in an increasingly egalitarian society. We therefore predict that some informants will not accept such statements as directives. Those who do regard *shall*-statements as acceptable might be expected to rate them as impolite, in view of the semantics of the modal.

As pointed out by Householder (1971: 87), second person statements with *may* can often achieve the speech act force of a command. The explanation for this is easily seen from the semantics of the modal: *may*, which when non-epistemic is specifically marked as [+ discourse participant involvement] for conversational registers of English, implies that the speaker is in a position to permit the addressee to carry out the speaker's wishes. This is indeed the explanation advanced by Heringer (1972: 32). We expect that *You may* ... statements will be classified predominantly as orders by our informants, and rated as impolite.

Second person *might*-statements are classified as suggestions by Forman (1974: 167), Boyd & Thorne (1969: 73) and Anderson (1971: 79), and as "suggestions or requests" by Palmer (1974: 129). Leech (1969: 237, 1971: 121) regards *might* as an equivalent of *could* in the toned-down 'familiar instruction' use. Diver (1964: 345) places *might* below *should* on his imperativeness scale, but above *could*. An added complication with *might*, which also applies to *could*, is that it can be used to indicate reproach, as pointed out

by Leech (1971: 121). This is, however, distinguished from the suggestion use in the spoken language by stress and intonation: the reproach use has heavy stress on the modal, and falling-rising tone. We can thus ignore this use if the modal is unstressed and falling tone is used. Despite the wide acceptance of *might*-statements as suggestions, the present writer finds the form with unstressed *might* distinctly odd as a directive. A possible reason for this can be seen in the clash between the speaker's own commitment to a strong position in permission-stating, and the expression of tentativeness in the modal form selected (cf. also our earlier discussion of *would* and *could*). The frequent use of *might* to express possibility, rather than permission, is an added factor. We therefore predict here that at least some informants will regard *might*-statements (with unstressed modal and falling tone) as unacceptable in the directive function, although the acceptance rate for the written form may be higher. Those who do accept these statements as directives would be expected to classify them as suggestions, and to rate them as intermediate in politeness.

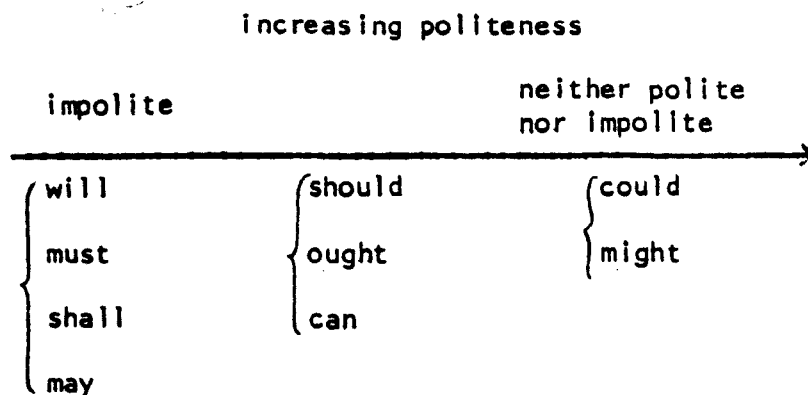
Second person *must*-statements are described as commands by Zandvoort (1975: 69), as polite commands by Householder (1971: 87), and as equivalent in force to a performative order by Kakietek (1970: 78). Diver (1964: 345) places these at the top of his imperativeness scale for modalised statements, though below imperatives. It is obvious that the statement of what it is necessary for someone to do indicates a rather high degree of coercion. We thus predict that

You must ... statements will be classified as orders, and rated as impolite.

You should ... statements are regarded as suggestions by Forman (1974: 167). We saw earlier that both Zandvoort and Jespersen regard them as less forceful, and so presumably more polite, than statements with *shall*. Diver (1964: 345) places *You should* ... second on his 'Scale of Imperativeness', below *must*, but above *might* and *could*. If *should* is a tentative equivalent of *must*, as we have suggested, then we should expect it to be the more polite of the two modals. Note that, according to our discussion in §8.4.3.3, *should*, like *must*, is open to an interpretation in which the speaker does not hold himself responsible for the constraint (i.e. non-epistemic *should* and *must* can be either [+ discourse participant involvement] or [- discourse participant involvement]). It is thus not necessarily the case that the speaker himself takes a strong position when using a *You must/should not* ... statement, and he is thus free to express tentativeness in the modal. Compare this with the case of *may/might* discussed earlier: in most registers, non-epistemic *may/might* are [+ discourse participant involvement], and there is, as we have seen, a clash between this involvement in a strong position, and the expression of tentativeness. We predict, then, that most informants will classify *should*-statements as suggestions, though some may well see them as orders in view of the element of obligation involved. We should expect *should* to be rated for politeness above *must*, but below *could* and (if acceptable) *might*, which do not involve obligation.

Ought statements are similar to those with *should*: indeed, for the present writer they are of equal strength, although both Jespersen (1932: 121) and Zandvoort (1975: 70) claim that *ought* is the stronger modal. There is no basis for such a claim in the semantics of these modals as presented in Chapter 8, and we shall therefore leave open for empirical investigation the significance of any difference in the politeness rating of the two modals.

We may now summarise our predictions concerning directly used second person modalised statements. It is predicted that *would* will be generally unacceptable, and *shall* and *might* unacceptable to at least some informants. *Will*, *shall*, *may* and *must* will, it is claimed, be classified as orders, while *could*, *should*, *ought* and *might* will be regarded predominantly as suggestions. Statements with *can* will probably be classified by some as an order, by others as a suggestion. The predicted politeness ranking is:



The bracketing here indicates that we are making no predictions regarding relative politeness within the bracketed groups, but are leaving this as a matter for experimental investigation.

9.4.4.2 Modals in directive questions ('whimperatives')

Before considering the individual modals in relation to directly used questions, we shall make two points of considerable generality. Firstly, those authors who admit politeness as an important factor in directives show strong agreement over the claim that in directive questions (Sadock's 'whimperatives'), the syntactically past tense modals indicate a higher degree of politeness than the present tense forms (see Twaddell 1965: 15; Leech 1969: 236, 1971: 120; Palmer 1974: 127, 1979: 87, 135; Ney 1976: 15; Fraser 1973: 301; Heringer 1972: 43). This is, of course, to be expected from the meaning encapsulated in the feature [+ tentative] in the semantic specification of these modals.

Our second claim concerns modals with a semantic specification including the feature [+ discourse participant involvement]. Such modals will, if used in a question, invite the addressee to state whether he will cause the subject of the sentence to be under the appropriate constraint. Since this is not normally a sensible question (a possible exception being the case of *Shall you ...?* - see later), we shall in general expect modals interpreted as [+ discourse participant involvement] not to occur in questions. We shall deal with particular instances of this claim as they arise.

It is generally agreed that *will*, *would*, *can* and *could* can all occur freely in whimperatives, and have the illocutionary force of requests. Heringer (1972) explains the occurrence of these modals in indirect speech acts in terms of the general rule for the performance of such acts by the

questioning, as well as by the assertion, of intrinsic conditions, together with the conditions discussed earlier in connection with *can-* and *will-*statements. An example of the *Can you ...?* type was discussed in detail in §9.3. As we have seen, *will/would* are probably better treated as marking volition, rather than futurity as in Heringer's analysis.

The position with regard to the corresponding negative modals is rather more complicated. As we saw in §9.4.3, there are conflicting factors in the interpretation of negative modalised questions and question tags. Green (1973: 73) claims that *won't* is more polite than *will*, and Close (1975: 264) and Zandvoort (1975:74) regard *Won't you ...?* as signalling an invitation; Fraser (1973: 303), however, places *won't* below *will* on a scale of politeness. Here, as with the corresponding tags, we shall look to our informant tests to clarify the situation.

Both *wouldn't* and *couldn't* are accepted in whimperatives by a number of authors (see e.g. Sadock 1970: 229, Green 1973: 59, Lee 1974: 36). In a later publication, however, Sadock (1974: 105) claims that these modals are unacceptable in whimperatives in the majority dialect (of American English), although they do occur in some dialects. They are certainly possible in the British English dialect of the present writer; although *wouldn't* seems more unusual than its related forms *would* and *won't*, no good semantic reason for this is apparent. Jespersen regards these forms as polite requests, while Forman (1974: 167) classifies *Couldn't you ...?* as a suggestion. This latter classification accords with the present

author's intuitions, and is perhaps natural in view of the paraphrases *Wouldn't you be able to/Wouldn't it be possible for you to ...?*. On the other hand, *wouldn't*, if accepted by informants, might be expected to be classified as a request, since, like *will*, *would* and *won't*, it appeals to the addressee's willingness to perform the act for the speaker's benefit.

It might be expected that whimperatives with *can't* would be classified as suggestions, though somewhat less polite than those with *couldn't*. However, as Green (1973: 73) has pointed out, such whimperatives are peculiar in that their force can depend on the lexical content of the directive. They can indeed be interpreted as suggestions in cases such as 9.31:

9.31 (= Green's 69a) *Can't you put the meat on first?*
With a different kind of propositional content, however, they may be interpreted as impolite orders, as in 9.32:

9.32 (= Green's 69b) *Can't you be a little quieter?*
This diversity of interpretation is evident in a comparison of two accounts from the literature: for Forman (1974: 167) *Can't you ...?* is a suggestion, while for Fraser (1973: 303) it comes at the bottom of the politeness scale for modals, being only a little more polite than a bare imperative. We can perhaps offer a tentative explanation for the ambivalence of *Can't you ...?* in terms of the multiple semantic specifications of *can't*. The permission interpretation is ruled out because, as we have seen, [+ discourse participant involvement] modals are not normally expected to occur in questions with *you* as subject. As we saw earlier for the positive form

can, epistemic meaning is also unlikely with a second person subject and a main verb representing an action. We are left with the 'ability' and 'general possibility' meanings. In the case of certain types of action, in certain kinds of context, it may be obvious to both speaker and hearer that the hearer has the ability to carry out the act concerned, but the speaker may still concede that there might be other factors which could affect the possibility of the action. In such cases, there is nothing impolite about the use of *can't*. However, in cases where the possibility of the act is less likely to be affected by unforeseen circumstances, either because of the nature of the act or the context of interaction, even a question about the general possibility of the act makes little sense unless there is some ulterior motive for it. We noted in §8.4.3.7 that negative interrogatives show that the speaker feels he has grounds for considering that the answer should be affirmative. In view of this, we may suggest that the utterer of a *Can't you ...?* question thinks the addressee does indeed have the ability to do what is being asked, but is casting doubt, not on this ability, but indirectly on the hearer's willingness to act. If this is so, then the implication of the addressee's unwillingness to comply with a reasonable request could be considered impolite. We predict, then, that *Can't you ...?* will be classified as an order by some informants, but as a suggestion by others, and that it will accordingly be rated as either impolite or neither polite nor impolite.

Shall you ...? is ruled out as a directive by Fraser (1973: 301) and Ney (1976: 15). Leech (1969: 229) also notes that second person questions with *shall* are rare. *Shall* does occur in first person questions, where it invites the addressee to make a decision on the basis of his own judgment. It seems that this must normally be a decision about someone else's action, though it is not easy to see why this should be so, since this is the one case where imposition of a constraint (here, an undertaking to act) by the addressee on himself does make some sense. Note, however, that *shall* does fit into the general pattern of non-occurrence of [+ discourse participant involvement] modals in directive questions. There seems to be no discussion of *Shan't you ...?* questions in the literature, but we might expect these to be no more acceptable than the positive form.

May you ...? is ruled out as a whimperative by Green (1973: 59, 70), Sadock (1974: 105) and Ney (1976: 15). *Mayn't you ...?* is also ruled out by Green and Sadock. An explanation for this unacceptability was given in §9.2: it is not sensible to ask someone whether he has his own permission to act. Note that this explanation differs from that of Heringer (1972: 30-31), who assumes that in a second person question it is still the speaker who is the source of permission.

Green (1973: 64) accepts *might*, and also *mightn't*, in whimperative suggestions, and Forman (1974: 67) recognises the uncontracted form *Might you not ...?* as a suggestion. The present writer, however, finds these very odd as directives, and this is exactly what would be expected by analogy

with the non-tentative form *may*(n't). *Might* is certainly very much more common as an epistemic modal than in its permission sense, and it is likely that informants will interpret *Might you ...?* as *Is it possible that you will ...?* and so reject it as a directive.

Gordon & Lakoff (1971: 65), Fraser (1973: 301) and Ney (1976: 15) reject *Must you ...?* as an indirect positive directive. Gordon & Lakoff (1971: 81) and Green (1973: 71), however, point out that *Must you ...?* can convey a directive not to perform the act concerned, though Green regards it a hint rather than a true 'impositive'. Gordon & Lakoff's explanation for this phenomenon must be rejected. They argue that since a request not to do something can be conveyed by *Can you not ...?*, and since *can* and *must* are linked by equivalence under negation ('necessary ... not' \equiv 'not possible'), the same negative request can be conveyed by *must*. However, it is not true that 'possible ... not' is equivalent to 'necessary', as the postulated equating of *can ... not* with *must* would imply. We must therefore look elsewhere for an explanation. We cannot unequivocally reject *Must you ...?* on the same grounds as questions with *may*, since *must* can have a [- discourse participant involvement] interpretation as well as the nonsensical one in which the hearer is being asked whether he will impose an obligation on himself. We may note, however, that negative directives with *Must you ...?* normally have heavy stress on the modal, implying 'Is it really the case that you are obliged to ...,' and hence indirectly suggesting that it would be better not to perform the act.

Green (1973: 71-2) also rejects *Mustn't you ...?* as a directive, pointing out that *Don't you have to ...?* is, however, acceptable. As we noted earlier, negative modals in questions can be interpreted as 'Isn't it the case that you are obliged ...?', and so on, so that it might be expected that either *Mustn't you ...?* (with no discourse participant involvement) or *Don't you have to ...?* could be used as a reminder of the necessity of carrying out an action. The fact that the unambiguously [- discourse participant involvement] *don't have to* is favoured over *mustn't* could be interpreted as indicating that the deontic function of *must(n't)* is primary (see also Palmer 1979: 100), so that in conditions where this sense would be inappropriate, the clearly marked [- discourse participant involvement] counterpart is used.

Summarising, then, we expect native speakers to reject *Must you ...?* and *Mustn't you ...?* as positive directives.

Should/shouldn't/ought/oughtn't you ...? present some parallels with *Must/mustn't you ...?*, as expected from their shared feature [nec]; there are also some differences. Sadock (1974: 105) and Ney (1976: 15) rule out *should* in whimperatives; Green (1973: 70) claims that most whimperatives are ungrammatical with *should*, although a few might be interpreted as suggestions or hints; Lee (1974: 36) accepts *Should you ...?* as a 'perlocutionary suggestion', but claims that it fails the tests for 'illocutionary suggestions' (see also §3.3.3); Forman (1974: 168) regards *Should you ...?* whimperatives as negative suggestions. As we saw in Chapter 8, *should* can be seen as a tentative counterpart of *must*. The weakening of the obligational sense by the feature

[+ tentative] produces a meaning paraphrasable roughly as 'Would it be advisable for you to ...?', which could be interpreted as a suggestion to act. The interpretation is, however, crucially dependent on stress and on the propositional content. We noted earlier that with heavy stress on the modal, *Must you ...?* could be taken as a negative directive: similarly, stressed *should* would lead to the interpretation 'Would it really be advisable ...?' and hence to a recommendation not to act. *Shouldn't you ...?*, on the other hand, is interpretable only as a positive directive: both Green and Forman classify it as a suggestion to act. As with *Mustn't you/don't you have to ...?*, we interpret *Shouldn't you ...?* as 'Isn't it the case that it would be advisable to ...?'. Note, however, that the situation differs from that with the non-tentative modals, in that there is no unambiguously [- discourse participant involvement] counterpart of *shouldn't* to parallel the use of *don't have to* in place of *mustn't*. We expect, then, that informants will accept *Shouldn't you ...?* as a suggestion, and rate it as neither particularly polite nor impolite, but some will reject *Should you ...?* because it can be used to recommend non-action.

In view of the semantic equivalence of *should* and *ought to* proposed in Chapter 8, we might expect these two modals to behave very similarly. Forman (1974: 168) does indeed regard *Ought you to ...?*, like *Should you ...?*, as a negative suggestion. Gordon & Lakoff (1971: 65), however, reject *Ought you to ...?* as an indirect speech act. One additional problem in this area is that some dialects do not use the form *oughtn't*, at least in the interrogative (see

Forman 1974: 168). We might expect a somewhat mixed response from informants here: some would probably reject one or both of *Ought you to ...?* and *Oughtn't you to ...?*; those who accept one or both forms might be expected to classify them as suggestions, and to rate them as neither polite nor impolite.

Let us now summarise our predictions regarding the acceptability, politeness rating and classification of questions with different modals. We expect that questions with those modals which normally have a [+ discourse participant involvement] interpretation (*may/might*, *shall*, and their negative forms), also *must(n't)*, whose deontic function is probably primary, will be unacceptable as directives. We predict that questions with *will/would* and their negative forms (if indeed *wouldn't* is accepted), also *can/could*, will be classified as requests and rated as relatively polite; also that *couldn't*, *shouldn't* and *oughtn't* (where this last is accepted) will be classified as suggestions, and rated as neither particularly polite nor impolite. We expect some informants to classify *can't* as an order in questions, and rate it as impolite, while others classify it as a suggestion, and rate it as neither polite nor impolite. It is also predicted that some informants will reject *should* and *ought* in questions because of their possible interpretation as negative suggestions, while others will accept them, classify them as suggestions, and rate them as neither especially polite nor impolite.

9.4.4.3 Modals in directives containing question tags

Acceptability judgments are rather clearer for modalised tags on imperatives than for the corresponding whimperatives. None of the modals *shall*, *should*, *ought*, *may*, *might*, *must* is accepted in tags by any author: Green (1973: 59) rejects *should*, *might*, *mightn't*; Sadock (1974: 105) *should*, *may*, *might*; Lee (1974: 36) rejects *should*, *must*, *mustn't*, and queries *shouldn't*. On the other hand, there is also good agreement that *will*, *won't*, *would*, *can*, *can't* are all acceptable in tags on imperatives, although Davison (1975: 173) has unexplained reservations about *can*. Sadock, although accepting these modals plus *couldn't* and *wouldn't* in an early paper (Sadock 1970: 229), later makes the same claim about *couldn't* and *wouldn't* in tags as in full questions, viz. that they are unacceptable in the majority dialect, though acceptable in some minority dialects (Sadock 1974: 106).

Since tags are regarded as semantically related to full questions, it might at first sight be expected that they would behave similarly to whimperatives in the acceptability or unacceptability of particular modals. If this were so, it would be predicted that *shouldn't* and *oughtn't* would be acceptable in tags, as well as *couldn't* and *wouldn't*, and that while some informants might reject *should* and *ought* in tags, others would accept them. Yet all these modals have, as we saw above, been rejected as unacceptable in tags by one or more authors. It is no doubt significant that all, with the exception of *wouldn't* (which the present author finds somewhat unhappy in whimperatives too), are modals

which can only be used whimperatively to make suggestions, while all those modals which appear to be clearly acceptable in tags can convey requests (or, in the case of *can't*, perhaps an order) when used in whimperatives. It seems to be the case that a directive which begins by sounding like a straight order to do something for the speaker's benefit, cannot then take a tag which would lead to interpretation in terms of a suggestion as to what might be done, since suggestions carry no implication of speaker benefit.

We predict, then, that only *will*, *would*, *won't*, *wouldn't* (if acceptable in whimperatives also), *can*, *can't* and *could*, will be acceptable in tags on imperatives. Since this form of directive still allows the addressee the option of refusal, we expect that the predominant classification will be as requests. In the case of *can't*, however, since we have ruled out the suggestion-making interpretation of the modal, we are left with the stronger interpretation (see discussion in §9.4.4.2), so that we might expect tagged imperatives with *can't* to be classified mainly as orders. We shall expect tagged imperatives to be rated rather lower for politeness than their whimperative counterparts, as discussed in §9.4.3. Since, in a tagged imperative, the main body of the directive is imperative, the tag simply being appended, we might expect a rather smaller range of politeness than for the corresponding whimperatives.

9.4.4.4 Modals with embedded performative verbs

We saw in §9.4.3 that expressions with performative verbs embedded inside a modal are predicted to be more polite

than bare performatives, and that questions are claimed to be more polite than statements here as in the ordinary modal constructions. It remains to discuss which modals can be combined with the verbs of requesting or ordering (the most important being *ask* and (more rarely) *tell*), and how these factors interact with statement or question semantic force. Clearly, as discussed earlier, we expect the use of *ask* to be more polite than that of *tell* in an otherwise identical pair of directives.

Let us first consider first person statements with embedded performatives. Fraser (1975: 188) distinguishes between 'strongly performative' examples, which are readily seen as counting as the act denoted by the performative verb, and 'weakly performative' instances, which are often of dubious acceptability in a reading where they count as the relevant speech act. *Must* is strongly performative with a large number of verbs; Fraser's explanation is that if someone has an obligation to perform some act, it can be inferred that he will perform it, if there is nothing to suggest the contrary. A general 'principle of efficiency' states that where, as in this case, a further utterance (i.e. a plain performative) would be redundant, one can infer that the speaker need not make such a further utterance, but will behave as if he had made it, and expect the addressee to do the same. Hence the construction of *I must* with a performative verb substitutes for the corresponding plain performative. According to Fraser, the motivation for using the modal construction rather than the bare performative is that

must implies that the speaker is under a compulsion to perform the speech act. The speaker is thus excusing himself for having to ask or tell the hearer to do something. Because of this, hedging with *must* is not appropriate where the act is of benefit to the hearer (e.g. with *promise*). Fraser claims that with directive verbs, the power relations implicit in the verbs dictate whether *must* will be strongly or weakly performative. With verbs implying speaker authority (e.g. *command, order, demand*) and with those implying subservience (e.g. *beg, implore, plead*), *must* is weakly performative. Fraser attempts to explain this by claiming that a speaker with authority would not wish to avoid responsibility, because the intention of the act is to get the addressee to do something by virtue of that authority; also, a speaker in a powerless position would not seek to avoid responsibility, because people are expected to help one another. Both the data and the explanations here seem rather suspect; if Fraser is right, however, we should expect *I must tell you to ...* to be of low acceptability to informants. On the other hand, Fraser claims that with power-neutral verbs such as *ask* or *request*, the speaker might want to excuse himself for causing inconvenience to the hearer. In this case, *I must ask you to ...* will be strongly performative, and classified as a request.

Fraser (1975: 199) suggests that *can* is strongly performative only when an adverbial such as *now, finally, at last* is present. We might thus expect *I can tell you to ...* and *I can ask you to ...* to be weakly performative, and their acceptability doubtful. It should be noted, however, that

both Heringer (1972: 25) and Mohan (1974: 154) appear to accept the *I can ask you to ...* type as indirect speech acts.

Fraser treats *will* as strongly performative when combined with a verb indicating an act which is not of benefit to the addressee. His reason here is that if a speaker expresses an intention to do something, it can normally be inferred that he will perform the act, unless there is evidence to the contrary. If this is so, we should expect *I will tell you to ...* and *I will ask you to ...* to be acceptable. Like Fraser, we may take *shall* as equivalent to *will* in this first person usage.

Passing now to performatives embedded to the permission modal *may*, we may note that Heringer (1972: 29-30) considers such speech acts to be based on the following intrinsic condition:

In settings where he is being deferential to the addressee, the performer of an illocutionary act K believes that he has permission of the addressee to perform the volitional acts involved in the carrying out of K, i.e. that the addressee will allow him to carry out these acts.

Heringer claims that assertions based on this condition (e.g. *I may ask you to ...*) are unacceptable, because an indirect speech act may be performed only by questioning a deference condition, not by asserting it. That is, it is impolite for the speaker to assert that he has the addressee's permission to perform the speech act, and this clashes with the deferential nature of the intrinsic condition. However, it is debatable whether the addressee's permission is at issue

here, since this is normally the case only in questions. Rather, in a statement, it is the speaker's own authority which is involved, so that *I may* must be interpreted as a statement of permission to oneself. As we noted in §9.2, this is clearly an odd kind of act to perform, which presumably explains the general lack of a permissive interpretation (as opposed to a possibility interpretation) for *I may*. Either on this reasoning or on Heringer's we should expect *I may ask/tell you to ...* to be unacceptable as a directive.

There is little discussion in the literature on the use of tentative modals in sentences with embedded performatives. Presumably Heringer's claim, that tentative modals do not occur in assertions used to make indirect speech acts, would carry over to this type of sentence; we saw earlier, however, that this claim led to some rather dubious predictions about the use of ordinary modal assertions as indirect speech acts. Fraser (1975: 207-8) claims that *would* is strongly performative, and acceptable, only where it can be viewed as the consequent to an implicit conditional antecedent of the type 'If you were to ask my opinion', and that *would* is therefore of dubious acceptability with performatives such as *request*, where the speaker's opinion as such is not at issue. A rather simple explanation for the marginal acceptability of *would* suggests itself: if, as Fraser has suggested, *will* combined with a power-neutral verb of requesting has a strongly performative interpretation, we might expect this to clash with the tentative meaning of the modal.

If, as has been claimed, *can* and *may* are of dubious acceptability with verbs of requesting, we might expect *could* and *might* to be unacceptable for the same reasons. This leaves *should*, which Fraser claims is rather rare in embedded performative constructions. Here, because the obligation is weaker than for *must*, the speaker has the option of not complying with it (see Leech 1969: 213-4) and Palmer 1979: 100-1, for a discussion of *should/ought to* in relation to 'non-actuality'). Since the speaker is not compelled to ask the addressee for the favour, the 'excuse' motivation suggested by Fraser for *must* is not applicable here, and we might expect *should*, also *ought to*, to be unacceptable.

We turn now to modal questions with embedded performatives. Heringer's intrinsic condition on the ability of the participants to carry out the acts involved would predict that *can/could* should be acceptable here. Indeed, both Heringer (1972: 25) and Mohan (1974: 454) accept *Can I ask you to ...?* The corresponding questions with *may* are also accepted by Heringer (1971: 27), Mohan (1974: 456), Gordon & Lakoff (1971: 29); and Searle (1975: 67) has an example of *Might I ask you to ...?* Heringer's explanation here is that although it is impolite to assert that one has the addressee's permission to perform an act, it is perfectly in accordance with the appropriate deference condition to question whether this is so. Since we saw in Chapter 8 that *can/could* can also be used with a permission meaning, this gives an added reason for expecting that these modals will be acceptable in questions with embedded *ask*. For both *can/*

could and *may/might*, we expect the tentative form to be more polite, as usual. All are predicted to be classified as requests.

Although *can/could* and *may/might* can co-occur with *ask* in questions, they appear to be unacceptable with *tell*. Gordon & Lakoff (1971: 79) simply note this as a problem, but Lee (1975: 106-7) proposes an explanation in terms of incompatibility between the speaker's own authority (as indicated by *tell*) and his assumption that the addressee has the option of permitting (indicated by *May I?*). We may generalise this explanation to cover the *can/could* case too: the fact that the speaker has chosen to phrase his speech act as a question gives the addressee a means of blocking the intended effect, and this option-giving is again incompatible with the speaker authority inherent in *tell*.

Lee also makes a distinction between modal-plus-performative expressions which ask for the addressee's permission (as in the examples discussed above) and those which express the speaker's frame of mind in performing the act concerned. The latter category includes the use of the *I must ask you to ...* type. Lee (1975: 107-8) points out that "the speaker's own internal feeling is not something to ask the addressee about; hence constructions of the latter type use a declarative sentential pattern, with the speaker as subject". Lee's explanation here, however, is incorrect. As we have seen, in questions containing modals interpreted as [+ discourse participant involvement] it is the addressee who is the potential source of constraint, not the speaker. Thus in the [+ discourse participant involvement] interpretation of

Must I tell/ask you to ...? the speaker is asking the addressee whether he wishes to put the speaker under an obligation to perform the act of asking or telling. This clashes with the fact that orders and requests are made for the speaker's benefit, and may even involve some inconvenience for the addressee. Even under the [- discourse participant involvement] interpretation of *must*, it does not make much sense to ask the hearer about the obligation on the speaker, if the point of the utterance is to get the addressee to act. There is an added complication here, not mentioned by Lee: as with *Must you ...?*, discussed in §9.4.4.2, strong stress on the modal leads to a different interpretation, in which the overall effect is of a negative directive ('Must I really ask/tell you to ...?'). We may expect, however, though not for the reasons given by Lee, that with an unstressed modal *Must I ask/tell you to ...?* will be unacceptable to many informants. The same reasons block the acceptability of *should/ought to/shall* in such constructions. The reason for the unacceptability of *Will I ask/tell you to ...?* is of a different kind: it makes no sense to ask the addressee about one's own volition.

9.4.5 Hypotheses: a summary

In the course of our discussion of the mapping relations between discourse directives and the semantic level, we have formulated a number of hypotheses, which will form the basis of the informant testing programme to be described in Chapter 10. These hypotheses are brought together in summary form below.

9.4.5.1 Hypotheses concerning acceptability and classification

Predictions, based on the semantic properties of the modals as discussed in Chapter 8, have been made concerning the acceptability, as directives, of sentences with particular combinations of modal verb and semantic force. We have also predicted the classification of acceptable directives as orders, requests or suggestions. Both sets of predictions are shown in detail in Table 9.1.

9.4.5.2 Hypotheses concerning politeness

9.4.5.2.1 Politeness and classification

H1 : Those directives classified predominantly as requests will be rated as relatively polite.

H2 : Those directives classified predominantly as orders will be rated as relatively impolite.

H3 : Those directives classified predominantly as suggestions will be rated as neither particularly polite nor impolite.

H4 : The politeness ranges for the three act types will be in the order:

requests > orders > suggestions

9.4.5.2.2 Politeness and semantic force

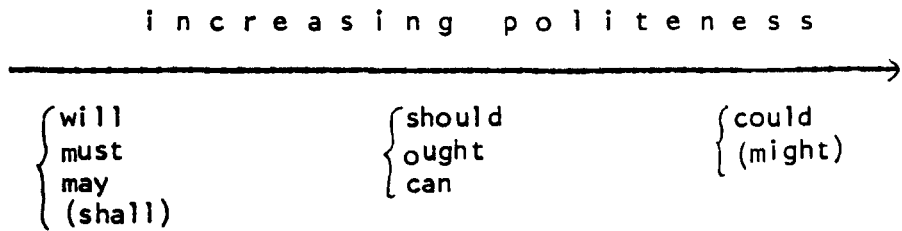
H5 : Within the limits imposed by the acceptability of particular modals in combination with particular semantic forces, the politeness ordering of the semantic force types, for a given modal form, will be:

MODAL VERB	SEMANTIC FORCE / POLARITY								
	- QUESTION - EXCLAM. (= STATEMENT)	POSITIVE QUESTION	NEGATIVE QUESTION	- INFO. POS. TAG.	- INFO. NEG. TAG	STATEMENT PERFORMATIVE		QUESTION PERFORMATIVE	
						ASK	TELL	ASK	TELL
Ø				O		R	O		
can	O/S	R	O/S	R	O/S	U	U	R	U
could	S	R	U/S	R	U/S	U	U	R	U
will	O	R	R	R	R	R	O	U	U
would	U	R	U/B	R	U/R	U	U	U	U
shall	U/O	U	U	U	U	R	O	U	U
may	O	U	U	U	U	U	U	R	U
might	U/S	U/S	U/S	U	U	U	U	R	U
must	O	U	U/S	U	U	R	U/O	U	U
should	S	U/S	S	U	U	U	U	U	U
ought	S	U/S	U/S	U	U	U	U	U	U

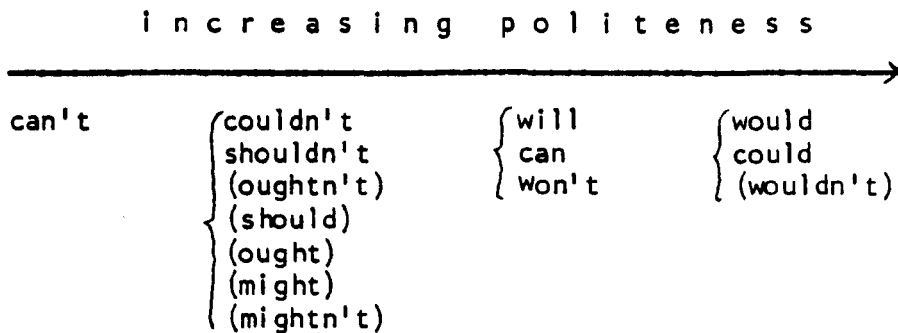
Key: U = unacceptable, O = order, R = request, S = suggestion
 X/Y some informants will give X, others Y, both in considerable proportions

Table 9.1: Hypotheses regarding acceptability and classification

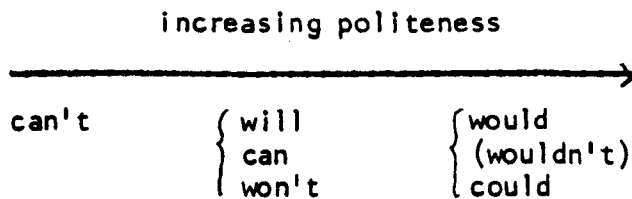
H9 : In modalised statements, the modals will show the following politeness ordering:¹



H10: In modalised questions (whimperatives), the modals will show the following politeness ordering:



H11: In directives with non-informational semantic force (imperative syntax) plus a question tag modification, the modals will show the following politeness ordering:



¹ The use of round brackets to enclose a modal indicates that this modal is predicted to be unacceptable to some informants (see Table 9.1). No predictions are made about the relative politeness of modals linked by curly braces.

10: HYPOTHESIS TESTING

10.1 Introduction: aims and overall structure of the informant testing programme

The informant testing programme described in this chapter was designed to test the hypotheses concerning the acceptability, classification and relative politeness of directives, which were set out in §9.4.5.

In Chapter 9, we discussed the semantic features of 'semantic force' and polarity underlying nine formal classes of potentially directive modalised sentences:

<u>Semantic features</u>	<u>Formal reflexes</u>
- question, - exclamation	declarative
+ question, closed, + ve	interrogative, + ve
+ question, closed, - ve	interrogative, - ve
- informational plus + ve question tag modification	imperative plus + ve tag
- informational plus - ve question tag modification	imperative plus - ve tag
- question, - exclamation, with embedded request performative	I modal ask you to ...
- question, - exclamation, with embedded command performative	I modal tell you to ...
+ question, closed, with embedded request performative	modal I ask you to ...?
+ question, closed, with embedded command performative	modal I tell you to ...?

For each of these nine formal classes, there are ten different modal possibilities for testing: *can, could, will, would, may, might, must, shall, should, ought*. In addition, for comparative purposes, three non-modalised forms were included: the bare imperative (with 'non-informational' semantic force), *I ask you to ...* (bare request performative), *I tell you to ...* (bare command performative). The total list of forms investigated thus ran to 93 items.

Each of these 93 items was set in a sentence concerned with the act of opening a window, which is not complicated by considerations of distastefulness, property ownership, duty, and the like. Native English speakers were then asked to judge whether each of the 93 test items was a possible way of trying to get someone to open a window. The informants were also asked to classify each acceptable sentence as an order, request or suggestion. This procedure gave a list of 35 acceptable directives (in both pilot and final investigations - see below), which were then used in a further test. Informants were now asked to rate these sentences on a scale of politeness, as a means of getting an acquaintance of the same age and sex to open a window.

The data from these investigations were subjected to appropriate statistical tests in order to substantiate or refute the hypotheses put forward.

A pilot study on a small sample of informants was first conducted; the methods used and results obtained are discussed in §10.2 below. Modifications to the methodology of testing were made as a result of the pilot study, and a larger scale investigation was then carried out. The final results are discussed in §10.3.

10.2 The pilot study

10.2.1 The informant sample

The pilot sample for studies on the acceptability of directives consisted of 10 first year undergraduates from the English Department of the University of Nottingham, and 29 first year students of Modern Languages and English at the City of Birmingham Polytechnic. For the later politeness rating studies, 8 Nottingham students and 25 Birmingham students were available, with considerable though not complete overlap with the initial groups. Informants were asked to supply their name, sex, age, main and subsidiary subjects, and a list of places they had lived in, with dates. Most of this information was not, in fact, used in the analysis, but was collected just in case any striking anomalies occurred, which might be traceable to variables of a dialectal kind. The heavy bias of the sample towards females, dictated by availability of informants (only 3 males in the whole sample) meant that no comparison between males and females could be undertaken.

10.2.2 Methodology of testing

10.2.2.1 Acceptability tests

The order of the 93 test sentences was randomised, and the list presented in typewritten form (see Appendix B) to approximately half the informants. The other half were given the items in reverse order, so that any possible effects of habituation or boredom in this rather long test could be tested and controlled for. The informants were asked to

decide, for each sentence, whether it could be used as a way of getting someone to open a window. If not, the informant was asked to circle the letter U (for 'unacceptable') by the sentence on the sheet. If the sentence was considered a possible directive, the informant was to circle one of the letters O, R or S, according to whether (s)he would classify it as an order, request or suggestion. All instructions were presented in written form (see Appendix B). The informants were asked whether they understood the instructions, and any unclear points (of which, in the event, there were very few) were cleared up before the test began.

10.2.2.2 Politeness rating tests

From the results of the acceptability test, a list of 35 'acceptable' directives was obtained (for criteria, see §10.3.3). It is clear that the relative politeness of a given lexicosyntactic form may be modified considerably by stress and intonational features. Compare, for example, the following (notational conventions as in Halliday 1970c):

- // 1 You might / open the / window //
(only marginally acceptable, or at least uncommon)
- // 1 You / might / open the / 4 window // (remonstrating)
- // 2 Must you / open the / window? // (unacceptable/rare)
- // 53 Must you / open the / window? // (exasperated)

Since, in the present study, we are concerned only with the effect of semantic differences mediated by syntactic and lexical choices, it is important that the effects of stress and intonation should be eliminated as far as possible. For this reason, the test sentences were presented both in writ-

ten form and on a tape pre-recorded by the author. In the taped version, standard unmarked intonation patterns (see Halliday 1970c) were used for the different formal types, as follows:

Declaratives: // 1 You modal / open the / window //

Interrogatives: // 2 Modal you / open the / window? //

Imperatives (± tag) //1 Open the / window //2 modal you?

It is, of course, highly desirable that in further work the effects of stress and intonation should be investigated; however, any attempt to incorporate these variables here would have created an intolerable burden for informants already faced with a rather difficult task.

Each test item on the tape was read twice, with a pause of 15 seconds between readings to allow the informant to make an initial judgment. The second reading of one sentence was separated from the first reading of the next by a pause of 5 seconds. The order of the 35 items was randomised, and half the informants were given the test in one order, half in the reverse order.

The informants were given written instructions asking them to imagine that they were trying to get an acquaintance (not a close friend) of the same age and sex to open a window. They were then asked to rate each sentence on a 7-point scale of politeness from 1 (very impolite) through 4 (neither particularly polite nor impolite) to 7 (very polite), and to circle the appropriate number next to the sentence on the written sheet (see Appendix B). Informants could circle U if they felt the sentence was unacceptable, but were asked

to use this only after very careful consideration.

10.2.2.3 Re-testing

It was hoped that all informants could be re-tested on politeness ratings after 3 - 4 weeks, to check for reliability of the procedure. Unfortunately, because of administrative difficulties, only the Nottingham students could be re-tested, and then only 7 were available. The results, although giving a very crude idea of reliability, are certainly not to be accorded any statistical significance.

10.2.2.4 Changes in methodology suggested by the pilot run

Informants were asked for comments on the way in which the tests had been presented, and on their own difficulties in carrying out what was required of them.

It was generally agreed that the spoken version of the rating tests was necessary because the politeness rating depended on 'how the sentence was said'. A few informants suggested that it might have been better to dispense with the written version altogether, since this would make respondents concentrate more closely on the spoken version. It was, however, decided to keep the written form of the test, for two reasons: the tests already require considerable concentration, and it seemed unwise to increase the burden; further, if the sentences spoken on tape were simply given numbers on the test sheets, it would be very easy for an informant who had missed out one item to carry straight on along the coding sheet, until (s)he noticed that the number allotted to the sentence on the tape no longer corresponded to that on the sheet.

It was also decided to extend the dual medium form of presentation to the acceptability tests. An advantage of the purely written presentation was that tests could be given to students to complete in their own time if necessary, so easing the problem of organising testing sessions. It is clear, however, that if we wish to eliminate as many unacceptable sentences as possible before the rating tests, and if we wish to compare the classification of directives with their politeness rating, then we should use both spoken and written presentation in all tests. Because of the length of the acceptability tests, it seemed best to split them into two batteries of 46 and 47 items respectively.

Almost all the informants agreed that the pauses between spoken sentences were too long, and that half the period given between the two readings of each sentence would have been sufficient. The pauses between repetitions were therefore set at 8 seconds for acceptability testing, and at 10 seconds for politeness rating, where the greater number of alternative choices is likely to make a decision more difficult. The pause between the second presentation of one sentence and the first reading of the next could, it was felt, be reduced to 3 seconds for acceptability tests and 5 seconds for rating tests.

There was some disagreement among informants about the usefulness of repeating the test items. Since, however, at least some informants claimed to find repetition useful in allowing them to decide finally on an answer, it was thought advisable to retain this feature of the presentation.

In view of the strict control of stress, intonation, voice quality and loudness aimed at in the test material, it was perhaps inevitable that some informants should find certain utterances somewhat unnatural as examples of 'real language'. It is, after all, usual to combine syntactic and lexical signals, not only with appropriate reinforcement from stress and intonation, but also with paralinguistic indicators of attitude. It is clear, however, for the reasons discussed earlier, that we must maintain strict control of as many 'irrelevant' variables as possible, if we are to compare validly the effects of various semantic factors, as reflected in lexicosyntactic choices.

As will be seen below, there was no significant effect of order of presentation of test items on the response of informants, for the great majority of sentences. It was therefore decided that a single order of presentation would suffice in the final investigation, so simplifying considerably the administration of the tests. As many informants as possible would be re-tested on politeness ratings after 3 - 4 weeks.

10.2.3 Results of the pilot investigation

10.2.3.1 Computational procedures used in the analysis of results

Even with a small sample of informants, the computational labour involved in analysing the data is considerable. The data were therefore coded on computer cards, and programs run to effect the necessary calculations. Part of a suite of 'package' programs 'Programmed Methods for Multivariate Data (PMMD)' (Youngman 1975) was used to calculate

the percentages of responses falling into particular categories, to prepare cross-tabulations of variables, and to perform chi-square tests for association of variables where appropriate. Special programs were written by the author in the language SNOBOL 4 to carry out tasks not covered by the PMMD package (see Appendix D). Essentially, these programs were needed to calculate medians for politeness rating scores, and to perform tests of significance of the differences between sets of paired scores for different directives. Further details will be given during the course of the following discussion.

10.2.3.2 Limitations on the interpretation of the pilot results

Although full details of the pilot results will be given, we clearly cannot place too much reliance on them, in view of the rather small size of the sample, and the fact that they are based on only a first attempt at an appropriate methodology. We therefore regard these results as merely suggestive of patterns which may be confirmed or altered in the main study, based on a much larger sample and, it is hoped, improved methodology.

10.2.3.3 Acceptability

The percentages of responses falling into the 'order', 'request', 'suggestion' and 'unacceptable' categories were calculated using the DRAX component of the PMMD package. The results are given in full in Table C.1 of Appendix C, and are summarised in Table 10.1, showing the degree of accep-

ACCEPTABILITY	SEMANTIC FORCE / POLARITY										
	QUESTION - ENCLAMATION (= STATEMENT)	POSITIVE QUESTION	NEGATIVE QUESTION	- IMPR. POS. TAG.	- IMPR. NEG. TAG.	STATEMENT PERF.		QUESTION PERF.			
						ASK	TELL	ASK	TELL		
0 - 9				shall must	mustn't						
10 - 19				may might should ought	mayn't mightn't shouldn't oughtn't						
20 - 29	would		mayn't					will would	will would		
30 - 39		may shall	shouldn't mustn't		wouldn't						
40 - 49			mightn't								
50 - 59		might must				can	would might can	should	should		
60 - 69		should	wouldn't		couldn't		should ought may	shall ought	can could may might shall ought		
70 - 79		ought					could might will shall would	ought will shall	must		
80 - 89	shall		oughtn't		can't		will d modal	must			
90 - 100	would should ought will may might can could	will would can could	won't can't couldn't shouldn't	will would can could	won't		must	can could may			

Table 10.1

Source of acceptability for the 2) form tested: pilot run

tance of each form, by class intervals of 10%. As might be expected, acceptability was not a clear-cut matter: indeed, there was a fairly high degree of tolerance for a wide range of forms. It is noteworthy that the most decisive rejections were of a variety of modals in tags on imperatives: 12 of these forms were rejected by 80% or more of the informants, one (*wouldn't*) by more than 60% and a further one (*couldn't*) by more than 30%. All 12 of the firmly rejected tags had been predicted as unacceptable, and it had also been forecast that *wouldn't* and *couldn't* would be unacceptable in tags for at least some informants. All the tagged imperatives predicted as unreservedly acceptable were in fact accepted by 80% or more of the sample.

6 modals were rejected in whimperative questions by more than 50% of the informants; of these, 4 had been predicted as unacceptable, and the other 2 as acceptable to only some informants. 5 further modals were rejected in whimperatives by between 20 and 50% of the sample; all had been predicted as unacceptable to most or at least some informants. All the 7 whimperatives predicted as unreservedly acceptable were indeed accepted by 80% or more, as were also two forms (*couldn't*, *wouldn't*) which were suggested as acceptable to some, but not all, the informants.

7 out of the 10 modals had been predicted as acceptable in statements, one (*would*) unacceptable, and 2 (*shall* and *might*) acceptable to some. This was indeed found to be the case, except that a higher proportion than expected accepted *shall* (87%) and *might* (95%). A probable explanation for the high acceptance rate of *shall* and *might* is that since the

sentences were presented only in the written form, informants were free to interpret the modal as stressed, perhaps a more acceptable usage than with an unstressed modal.

The data on embedded performatives are rather less clear-cut, in that informants tended to accept a variety of these forms more readily than had been expected. *Will* and *would* were rejected in interrogatives with *ask* and *tell* by 70% or more of the informants, but all other forms were accepted by at least 50%. It is nevertheless significant that 5 of the forms predicted as acceptable (*can/could/may ask*, in the interrogative; *will/must ask* in the declarative) were accepted by over 80% of the informants. The only other form to achieve such a high degree of acceptance was *Must I ask you to ...?* The explanation for this, as for the acceptance of *You shall ...* is probably that informants interpreted the written form in terms of a stressed modal. In accordance with this, the parallel form with *tell* was accepted by a substantial, though somewhat lower, proportion of the sample.

In the subsequent analysis of classification and politeness rating, it was decided to study only those directives accepted by 80% or more of the informant sample. This cut-off is, of course, necessarily arbitrary; it, does, however, represent a high degree of consensus, and gives a manageable list of 34 directives, to which one with 77% acceptance (*Might I ask you to ...?*) was added so that comparisons could be made within the set *Can/could/may/might I ask you to ...?*

10.2.3.4 Classification as an order, request or suggestion

Table 10.2 summarises the data on classification by showing which forms are classified mainly as orders, as requests or as suggestions, and which have several categorisations of comparable magnitude. The criterion used was again necessarily arbitrary: a figure of at least 60% classification as one particular kind of act appeared to sort out the data into fairly well-defined groups. Table 10.2 also shows the predicted classification for each directive in brackets. The figures below each entry represent politeness ratings, and can be ignored for the present.

The degree of correspondence between predictions and results is very high. All non-performative modalised forms predicted as requests were in fact classified as such. The correspondence for suggestions and orders is also high, although some forms predicted to fall in one of these categories had mixed classifications (e.g. *You should ...*, *You may ...*).

10.2.3.5 Politeness rating tests

10.2.3.5.1 Statistical techniques

The 7-point scale used in assessing politeness is essentially an instrument for ordinal measurement: it would be unjustifiable to assume that the points on the scale represent equal intervals, but it is reasonable to claim that a directive given a score of, say, 5 on the scale is ranked, by a particular informant, above a directive scored as 4 or 3. In view of this it was not appropriate to use the mean as a measure of central tendency, or the parametric 't' test as a

test of significance between the central location of two samples. Instead, the median, a measure based on ranking, was used as a measure of central tendency, and the 'sign test' (see e.g. Ferguson 1971: 324) was performed to estimate the significance of differences between ratings of particular pairs of directives. This test is based on the direction of the difference between the scores allocated by each informant to two test items. Since only the direction, and not the magnitude, of the difference is taken into account, the sign test is not particularly powerful. Our results will therefore represent a somewhat conservative picture of the differences involved, since it is possible that we shall be led to reject as non-significant certain differences which are in fact real.

As an example of the principles and computations involved in the sign test, let us consider the scores for the first two directives in the test list:

- (1) You could open the window.
- (2) You may open the window.

The relevant data are shown in Table 10.3. Where a zero appears in the column for one of the test items, this indicates that the informant either regarded the directive as unacceptable, or failed to give a response. In such a case, the informant was dropped from the particular pairwise analysis concerned.

Dir.1	Dir.2	Sign of difference	Dir.1	Dir.2	Sign of difference
1	4	-	5	4	+
5	2	+	2	2	0
3	2	+	1	4	-
1	2	-	1	3	-
4	4	0	1	1	0
4	3	+	2	1	+
5	4	+	1	1	0
3	2	+	5	5	0
5	4	+	3	4	-
4	6	-	3	2	+
4	3	+	3	3	0
0	7	omitted	2	0	omitted
2	2	0	4	4	0
5	4	+	3	3	0
3	2	+	3	4	-
4	3	+	3	7	-
4	5	-			

Table 10.3: Data for sign test for the first two test items

The null hypothesis is that there is no significant difference between the sets of ratings; that is, that they come from the same population or two identical populations. The alternative, or experimental, hypothesis is that there is a significant difference at the 5% level, though in this case the direction of the difference is not predicted. We first find the sign of the difference between each pair of ratings, subtracting consistently in one direction. This gives us 13 positive differences, 9 negative differences and 9 zero differences, for the case we are considering. We now calculate D, the difference between the number of positive and negative differences, and use the value of D, together with the total number of pairs with non-zero differences (N), to calculate a normalised 'z-score', as follows:

$$z = \frac{D - 1}{\sqrt{N}} = \frac{(13 - 9) - 1}{\sqrt{22}} = 0.64$$

Referring this value to the table of areas under the normal curve, we find that there is a 26.11% probability (i.e. $p = 0.2611$), in a non-directional (2-tailed) test, of obtaining a z-value equal to or greater than the observed value, merely by chance. We cannot therefore reject the null hypothesis in this case.

Since no package program for the sign test was readily available, a SNOBOL 4 program was written by the author, to compute the median for each set of scores and perform a sign test on each possible pair of test items. The program is given in full in Appendix D. The significance level is output for each application of the test, for both directional and non-directional cases. In tables of results an asterisk convention will be used to indicate significance level, as follows: $p \leq 0.001$, three asterisks; $p \leq 0.01$, two asterisks, $p \leq 0.05$ (the criterial level for the present study) one asterisk; $p > 0.05$, no marking.

10.2.3.5.2 Hypotheses relating politeness to classification

The relevant hypotheses, set out in §9.4.5.2.1, are repeated here for convenience:

H1: Those directives classified predominantly as requests will be rated as relatively polite.

H2: Those directives classified predominantly as orders will be rated as relatively impolite.

H3: Those directives classified predominantly as suggestions will be rated as neither particularly polite nor impolite.

H4: The politeness ranges for the three speech act types will be in the order:

requests > orders > suggestions

The data relevant to these hypotheses are summarised in Table 10.2. Hypotheses H1 and H2 are clearly supported: directives classified as requests have ratings ranging from just below the mid-point of the scale to the very top, the median of the median values being 5.08, clearly on the 'polite' side of the mid-point; orders have median scores in the range 1.09 to 3.04, but all except one are in the range 1.09 to 1.67, the median of the medians being 1.33, near the bottom of the scale. On the whole, suggestions receive rather lower scores than predicted; nevertheless, the median of the medians does lie quite close to the mid-point, at 3.36, and it is absolutely clear that in general suggestions lie between orders and requests in politeness within the given social context.

A further way in which we can test hypotheses H1 - 3 is by measuring the correlation between the proportion of informants classifying a particular directive as a certain type of act; and the median politeness rating for that directive. If our hypotheses are correct, there should be a strong positive correlation between politeness rating and percentage classification as a request, a strong negative correlation for orders, and a near zero correlation for suggestions. The actual values calculated for the Pearson product-moment correlation coefficient are:

requests: $r = + 0.805^{***}$
orders: $r = - 0.782^{***}$
suggestions: $r = - 0.078$

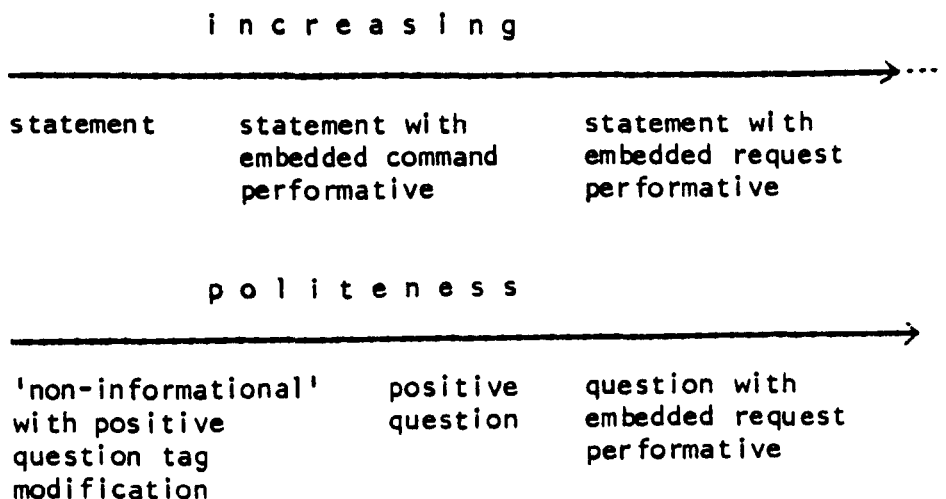
Again, the findings support our hypotheses in a very striking manner.

Hypothesis H4 is also supported by our data, since the ranges for requests, orders and suggestions are 3.17, 1.95 and 1.06 respectively. However, it is worth noting that apart from the clearly untypical *I must ask you to ...* the range for orders is only 1.09 to 1.67, or 0.58, which is smaller than that for suggestions.

10.2.3.5.3 Hypotheses relating politeness to semantic force

Hypothesis H5, relating politeness to semantic force for positive modalised directives, is repeated below:

H5: Within the limits imposed by the acceptability of particular modals in combination with particular semantic forces, the politeness ordering of the semantic force types, for a given modal form, will be:



This overall hypothesis subsumes a number of sub-hypotheses relating pairs of semantic forces for individual modal forms. The directional sign test data relevant to these sub-hypotheses are given in full in Table C.3, Appendix C, summarised in Table 10.4 (together with data relating to hypotheses H6 and H8 - see below). All but three of the sub-hypotheses are supported. The exceptions are that for both *can* and *would* (but not for *will* or *could*) the question and tag directives are not significantly different in politeness, and that *I must tell you to ...* and *You must ...* again show no significant difference. It is clearly prudent to see whether these results are confirmed by the final investigation with a larger informant sample, before attempting any explanation.

Table 10.4 also shows comparisons whose results were not predicted in our hypothesis (for details see Table C.4, Appendix C). Since the direction of any difference is not predicted, a non-directional (2-tailed) sign test is needed here, as opposed to the directional (1-tailed) test used for the above comparisons where the direction of difference was predicted. The most interesting and important finding is that negative modals are less polite than positive modals, whether in a whimperative question or a tag (see discussion in §9.4.3). The form *Must I ask you to ...*, which was predicted to be unacceptable but was in fact accepted, is rated impolite with respect to *I must ask you to ...*, and this would suggest that the informants are adopting an interpretation 'Must I really...' despite the unstressed modal.

Hypothesis H6 concerns the non-modalised directives investigated:

H6: The non-modalised directives investigated will show the politeness ordering:

i n c r e a s i n g p o l i t e n e s s

—————→
bare command bare non-informational bare request
performative (imperative syntax) performative

Data for the two relevant comparisons are shown in Table 10.4, and support our hypothesis (see Table C.5, Appendix C, for details).

Hypothesis H7 is concerned with the range of politeness in whimperative questions and tagged directives:

H7: The 'non-informational plus question tag modification' type will have a smaller politeness range than the question (whimperative) type.

Relevant data can be obtained from Table 10.2: the range for whimperative questions is 1.91 to 5.76 (= 3.85), while that for tagged forms is 1.26 to 5.00 (= 3.74). There is thus little difference between the ranges. If, however, we omit *can't* from the analysis, as a somewhat special case (see discussion in §9.4.4.2 and §9.4.4.3), the ranges are 1.91 for questions and 1.39 for tagged forms, showing a rather greater, though still not large, difference in the predicted direction.

10.2.3.5.4 Hypotheses relating politeness to modal semantics

H8: For any given modal lexical item, and any given semantic force, the tentative modal (if available) will be more polite than the corresponding non-tentative modal.

Data relevant to this hypothesis are shown in detail in Table C.6, Appendix C, and summarised in Table 10.4. *Could* is rated as more polite than *can* in positive and negative questions and in tags, but not where a request performative is embedded to the modal, or in a directive statement. Similarly, with *may/might*, the differences are non-significant for the statement and embedded request performative directives. *Will/would* shows a significant difference for tags, but not for whimperative questions. Again, we shall not attempt an explanation of these findings until we see whether they are confirmed by the final investigation.

Hypothesis H9 deals with the effect of individual modals in statements:

H9: In modalised statements, the modals will show the following politeness ordering:

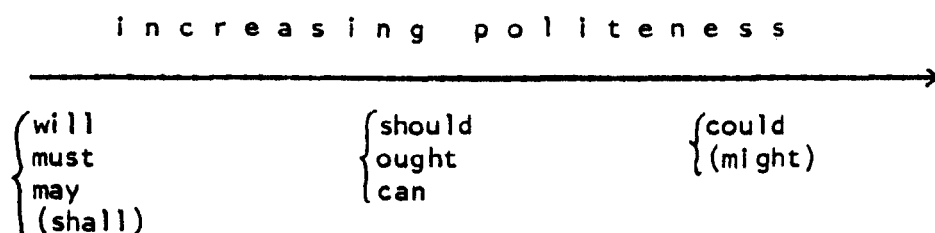


Table 10.5 shows the relevant comparisons (for detail, see Table C.7, Appendix C). There are clear differences, in the predicted direction, between members of the *should/ought/can* group and *will/must/shall*. Comparisons with *may*, however, do not turn out as predicted, because informants rated *You may ...* higher than expected (median 3.33) and, as noted earlier, more informants classified it as a suggestion than as any other speech act type. Thus *You may ...* is actually rated as significantly more polite than *You should ...*, and

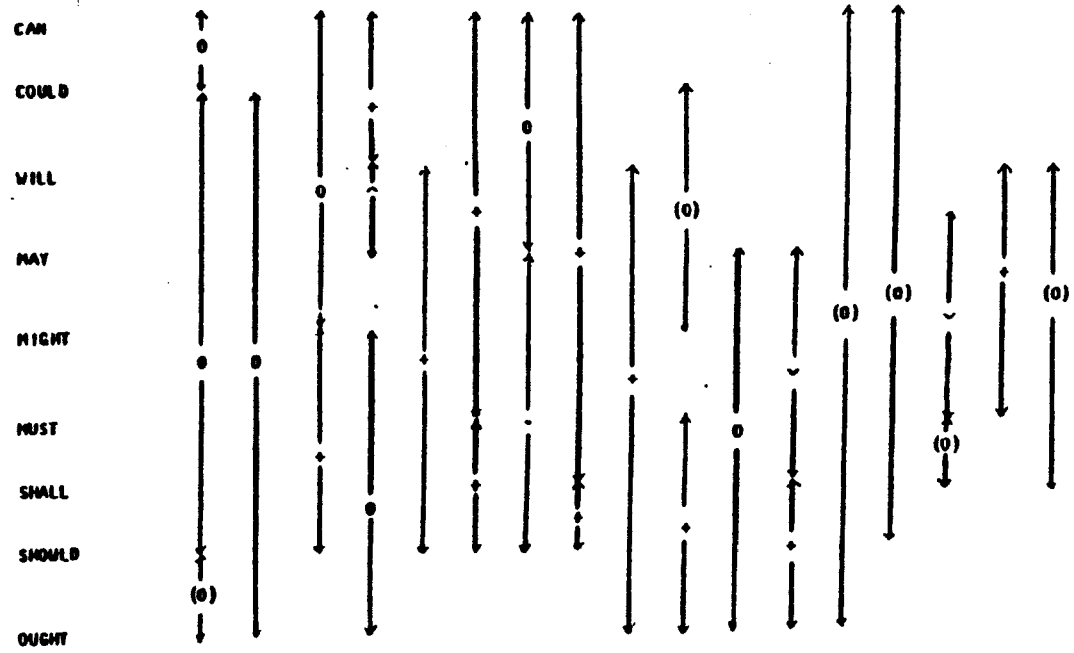


Table 10.5
The effect of individual modals on politeness
in statement directives: pilot run

Key to symbols:

- + : difference significant and in predicted direction
- : difference significant, but direction opposite to that predicted
- 0 : no significant difference in case where such a difference predicted
- (0) : no significant difference; none predicted
- A > B : A significantly greater than B, where no prediction made

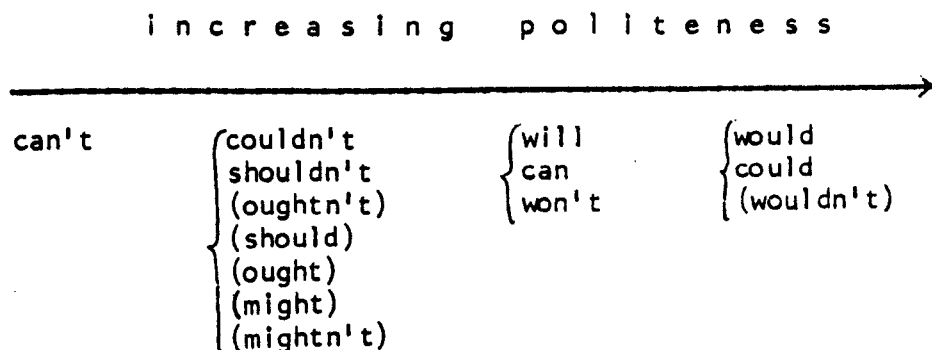
as showing no significant difference from *You can ...* or *You ought ...*. Of the six pairs available for testing in the *should/ought/can* and *could/might* groups, only one (*You might ...* and *You should ...*) shows a significant difference. Clearly, if confirmed by the final run of testing, these results and those involving *may* will need to be accounted for.

Table 10.5 also shows the results of comparisons between modalised statements for which the ordering was not predicted (for detail, see Table C.8, Appendix C). *You may ...* again stands out, as being more polite than *will/shall/must*. *You must ...* appears to be more polite than *You will ...*; all other pairs show non-significant differences.

In Table 10.6, modalised statements are compared with the bare imperative (for details see Table C.9 of Appendix C). It will be seen that *You can/could/may/might/should/ought ...* are all significantly more polite than the bare imperative, while *You will/must/shall ...* show non-significant differences from the imperative.

Hypothesis H10 concerns the relative politeness of modals in whimperative questions:

H10: In modalised questions (whimperatives) the modals will show the following politeness ordering:



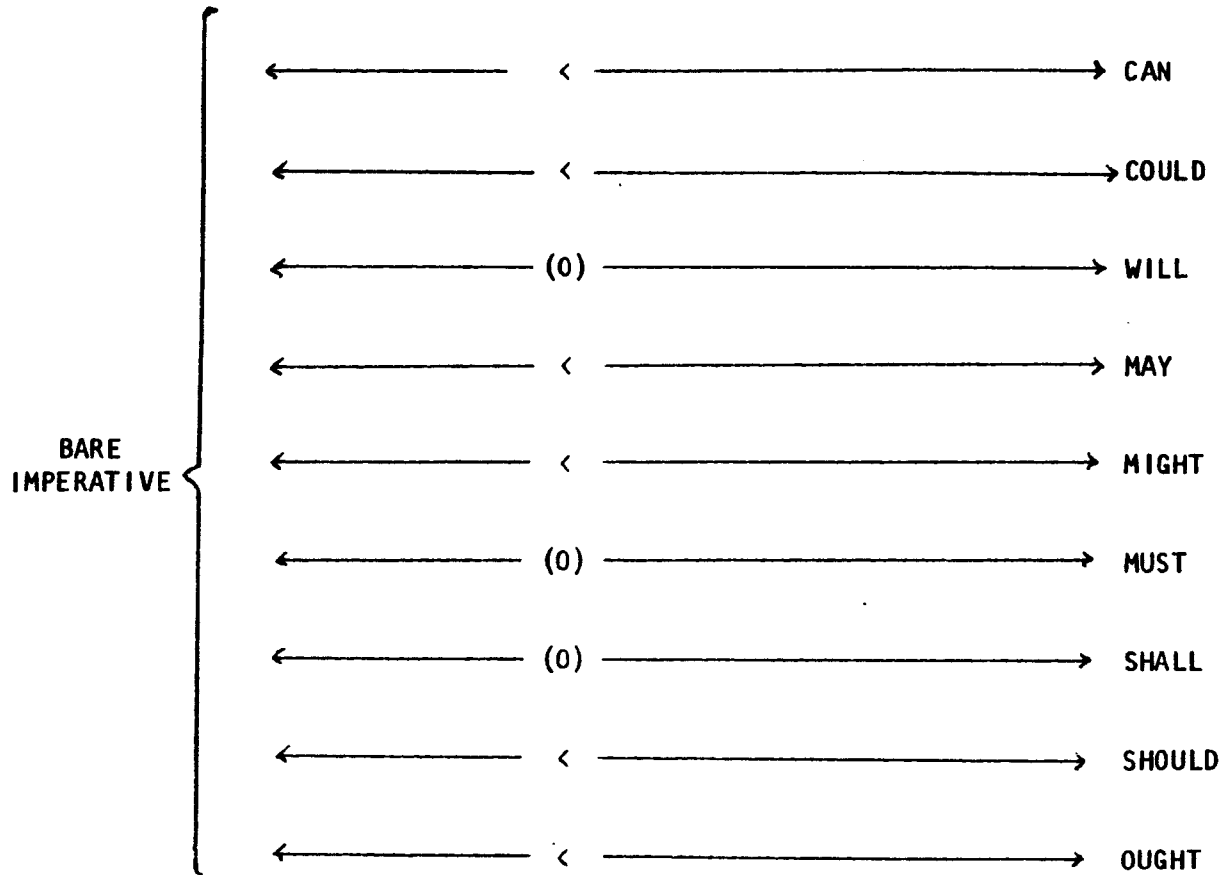


Table 10.6

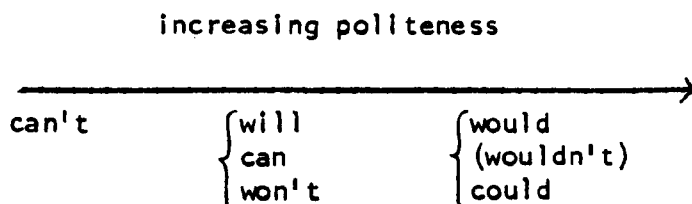
Comparison of politeness of bare imperative and modalised statements:
pilot run

The relevant comparisons are given in detail in Table C.10, Appendix C, and a summary can be seen in Table 10.7, which shows that most of our predictions are confirmed. The lack of a significant difference between *Would you ...?* and *Will you ...?* was noted earlier. *Could you ...?* and *Will you ...?*, *Can you ...?* and *Couldn't you ...?* likewise show non-significant differences. *Won't you ...?* shows no significant differences from either *Couldn't you ...?* or *Shouldn't you ...?*. Again, explanations must be sought if these findings are confirmed by testing with a larger sample.

Table 10.7 also shows comparisons for pairs whose ordering was not predicted (for detail, see Table C.11, Appendix C). The only significant difference is that between *Will you ...?* and *Can you ...?*, the former being rated as more polite.

Finally, we turn to H11, concerned with tagged directives:

H11: In directives with non-informational semantic force (Imperative syntax) plus a question tag modification, the modals will show the following politeness ordering:



Data relevant to this hypothesis are given in full in Table C.12, Appendix C. The summary in Table 10.8 shows that every one of the sub-hypotheses contained in H11 is supported. The table also compares modals within groups, for which no ordering was predicted (for detail see Table C.13, Appendix C). The only significant difference is that between *Imp, can you?* and *Imp, won't you?*

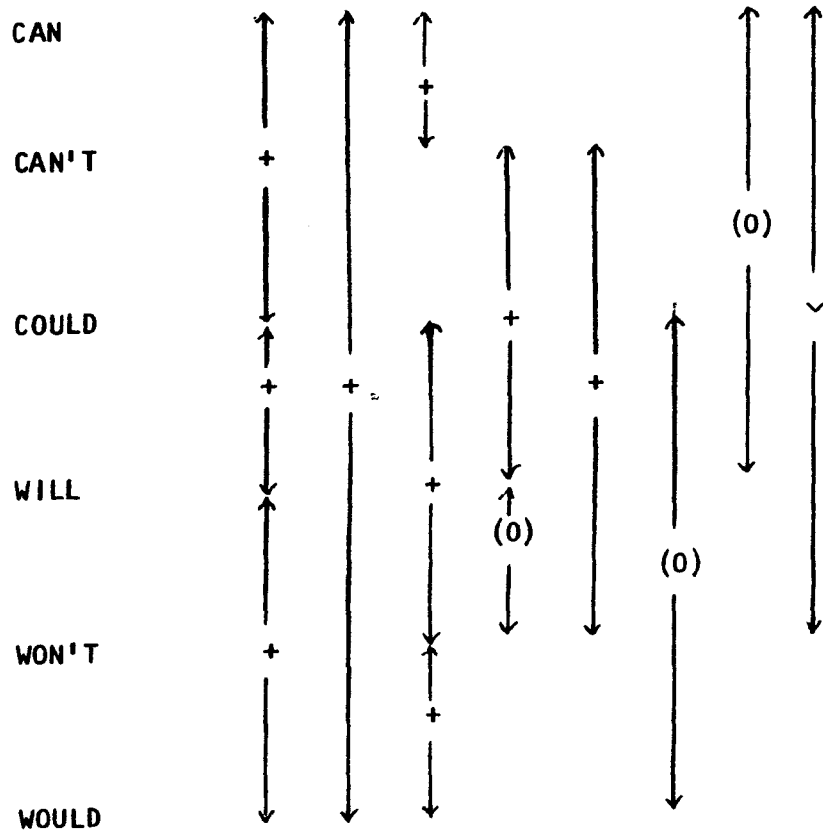


Table 10.8

The effect of individual modals on politeness
in directives with question tags: pilot run

10.2.4

The effects of order of presentation of test items

The classification of directives by informants was studied in relation to the order of presentation of test items, by preparing, for each test item, a contingency table showing the frequency of each classification (order, request, suggestion, unacceptable) by each of the two order groups. This cross-tabulation, and the calculation of a chi-square value to test for association between classification and order of items, were performed by means of the DRAX component of the PMMD package. The results showed that for 85 out of the 93 test items (i.e. 91%) there was no significant effect of order of presentation at the 5% level. Given the fairly small size of the sample, this was taken as sufficiently clear evidence that order effects were negligible, especially since those items which did appear to show a significant effect were distributed fairly evenly throughout the list, rather than concentrated at the ends.

The effects of order on politeness ratings were studied by using the Mann-Whitney U test (see Ferguson 1971: 326) to compare the ratings for the two order groups, for each variable. This test is based on ranking methods, and so effectively compares the medians of independent samples; it is thus more suitable for our data than the parametric 't' test. The MWUT component of the PMMD package was used to carry out the analyses. Since, however, this program does not allow for the effects of missing data, U values were calculated manually for any directives for which one or more informants had given no rating value. For 26 out of the 35 directives (74%) there was no significant effect of order at the 5%

level; for a further 4 (11%) the effects were just significant at the 5% level; for only 5 (14%) was there a clearly significant difference. Although the results are not as clear-cut as for the acceptability and classification tests, it is still true that for the great majority of test items order effects are insignificant.

10.2.5 Re-testing in the pilot run

For each test sentence, a note was made of how many of the 7 informants available for re-testing showed deviations of 0, 1, 2, 3 and 4 points between their original score and their score on re-testing. The results (for details, see Table C.14 of Appendix C) are based on a very small sample, and so have no statistical validity; they do, however, suggest that the reliability of the test may be fairly high. For 12 out of the 35 test items, all the 7 informants gave scores which were reliable to within one point; for a further 14 items, 6 out of 7 informants were consistent to within one point; and for a further 6 items, 5 out of 7 informants gave judgments which were reliable to this degree.

10.3 The final investigation

10.3.1 The informant sample

A sample of 100 students was sought for the final investigation. In the event, the informants for the acceptability and classification test comprised 86 first year students (40 male, 46 female) from various departments in the University of Nottingham, and 26 first year students (20 male, 6 female) from the Biology Department of the Trent Polytechnic,

Nottingham, making a total of 112. For the politeness rating tests, the sample consisted of 62 first year undergraduates (28 male, 34 female) at the University and 35 (12 male, 23 female) from three departments at the Polytechnic. Full details are given in Tables C.15 and C.17 of Appendix C.

The informants came from a wide range of geographical backgrounds, as shown in Tables C.16 and C.18 of Appendix C. For purposes of recording geographical origin, the British Isles map was divided into 14 regions, and an informant was classified as from a particular region if (s)he had spent at least 75% of his/her life there. Informants who did not meet this criterion were classified as 'mixed'. It will be seen that the best represented regions in the sample are the South East (London and Home Counties), Cheshire/Lancashire, Yorkshire and the East Midlands. The wide variety of geographical backgrounds means that the results of the investigation are unlikely to be seriously affected by dialectal influences.

Of the 97 informants initially tested for politeness rating of the directives, 38 were available for re-testing after 3 - 4 weeks. This sample is certainly high enough for statistically valid statements to be made about the reliability of the test (see §10.3.4).

10.3.2 Methodology of testing

The changes in methodology introduced as a consequence of experience with the pilot run (see §10.2.2.4) are summarised below:

- (i) Both acceptability/classification and politeness rating tests were presented in taped form as well as on paper. The acceptability/classification test was split into two batteries, of 46 and 47 items respectively, which were administered with a break of 5 minutes between them.

- (ii) The pauses in the politeness rating test on tape were reduced to 10 seconds between the two readings of a given test item, and 5 seconds between one item and the next. The pause lengths for the acceptability tests were 8 seconds between readings of a given item, and 3 seconds between successive items.

- (iii) Both acceptability/classification and politeness rating tests were presented in one order only to all informants.

The final typewritten instructions and coding forms are given in Appendix B.

10.3.3 Results of the final investigation

10.3.3.1 Acceptability

The percentages of responses falling into the 'order', 'request', 'suggestion' and 'unacceptable' categories were calculated using the DRAX component of the PMMD package. The results are presented in full in Table C.19 of Appendix C, and are summarised in Table 10.9. They show a very high degree of similarity to the results of the pilot project,

SEMANTIC FORCE / POLARITY									
ACCEPTABILITY	QUESTION - ENCLAMATION (- STATEMENT)	POSITIVE QUESTION	NEGATIVE QUESTION	- INFO. POS. TAG	- INFO. NEG. TAG	STATEMENT PERM.		QUESTION PERM.	
						ASK	TELL	ASK	TELL
0 - 9				most	aren't				
10 - 19				may shall should ought	shan't mayn't			will	will would
20 - 29	would	must	mayn't aren't	might				would	
30 - 39					mightn't oughtn't shouldn't	would			
40 - 49		may shall	shan't				might	should	should
50 - 59					wouldn't	can could should		should ought may could can	shall ought might
60 - 69		ought	wouldn't mightn't			may	shall will		can could may
70 - 79	might	should might			couldn't	would might ought		ought must	might
80 - 89	shall		can't		can't won't	will d modal shall			must
90 - 100	must should ought will may can could	will would can could	won't couldn't shouldn't oughtn't	will would can could		must		can could may might	

Table 10.2

System of acceptability for the 93 forms tested. Final run

except that the percentage acceptability for some forms at the lower end of the acceptability scale varies a little. It is noteworthy, however, that the list of directives with 80% acceptability or higher is identical to that for the pilot project, except that:

- (i) *You might ...* has an acceptability value slightly too low for inclusion. It was predicted in our hypotheses (see Table 9.1) that this form would be unacceptable to at least some informants, when presented orally.
- (ii) *I shall ask you to ...* was regarded as acceptable by 81% of the informants.
- (iii) *Must I ask you to ...?* was regarded as less acceptable than *Must I tell you to ...?*. The former was not included in the list of acceptable directives, while the latter was.

We thus have again a list of 35 directives for further analysis, of which 33 were present in the list for the pilot investigation.

10.3.3.2 Classification as an order, request or suggestion

Detailed information on the classification of each form is contained in Table C.19 of Appendix C. A summary showing which forms were classified predominantly (i.e. 60% or more) as orders, requests and suggestions and which had mixed classification, is shown in Table 10.10, together with the predicted classifications.

For those directives classified as acceptable in the pilot test, the predominant classifications are identical for the pilot and final versions, with just one main exception: whereas *Imp, won't you?* was classified predominantly as a request in the pilot test, it received a more mixed classification (42% request, 34% order) in the final investigation. Of the forms present in the 'acceptable' list for the final run, but not for the pilot project, *I shall ask you to ...* received a mixed classification, whereas it was predicted to be a request, and *Must I tell you to ...?* was also given a mixed classification. Once again, the degree of correspondence between final and pilot results is extremely high, and the final investigation, like the pilot project, supports the predictions of Table 9.1 in a striking manner.

10.3.3.3 Politeness rating

10.3.3.3.1 Hypotheses relating politeness to classification

Data relevant to hypotheses H1 - 4, concerned with the relationship between politeness and the classification of acts, are summarised in Table 10.10.

Hypothesis H1, predicting that directives classified mainly as requests will be rated as relatively polite, is clearly supported: as with the pilot data, those forms classified predominantly as requests have median politeness ratings ranging from just below the mid-point of the scale to very near the top end. The median of the medians (4.94) is on the polite side of the mid-point, and is very close to the value obtained in the pilot study (5.08).

Hypothesis H2, which predicts a relatively impolite rating for directives classified mainly as orders, is also supported: the results follow those of the pilot study extremely closely, with a range of 1.09 to 1.62 (cf. 1.09 to 1.67 for the pilot) for all but one directive, *I must ask you to ...*, which received a considerably higher rating than other orders in both pilot and final studies (ratings 3.04 and 3.18 respectively). The median of the medians is almost identical in the two studies (1.33 for the pilot, 1.32 for the final run), and is in the lowest part of the politeness scale.

We noted earlier that suggestions were rated rather lower, in the pilot study, than had been expected. This is confirmed by the final investigation, the range for suggestions being 2.15 to 3.37, with a median of 2.94. It is still clear, however, that suggestions lie between orders and requests in politeness: apart from the untypical case of the order *I must ask you to ...*, there is no overlap in median rating between suggestions and either orders or requests.

The correlation between the percentage of informants classifying a directive as a particular type of act, and the median politeness rating, was also calculated. The correlation coefficients are:

requests:	$r = + 0.873^{***}$
orders:	$r = - 0.777^{***}$
suggestions:	$r = - 0.094$

The values are very close to those for the pilot data (+ 0.805, - 0.782, - 0.078 respectively), and provide very strong support for our hypotheses relating politeness to classification.

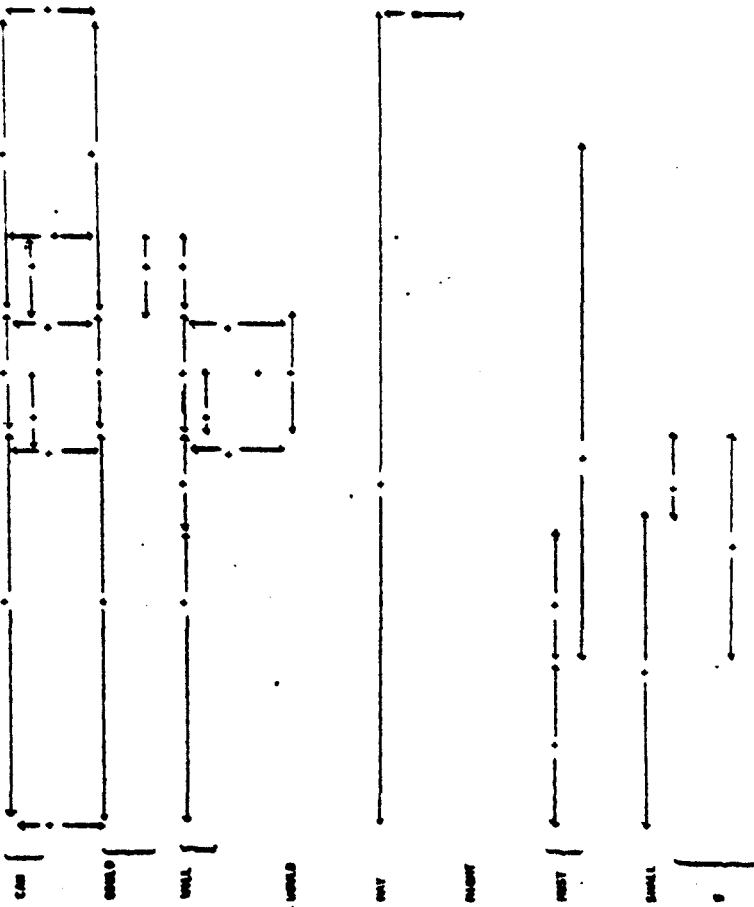
Hypothesis H4 predicts that requests will have a larger range of politeness than orders and suggestions, and that orders will have a slightly greater range than, or an approximately equal range to, suggestions. The data in Table 10.10 support the hypothesis (ranges: requests 3.09; orders 2.14; suggestions 1.22). As with the pilot data, exclusion of the untypical order *I must ask you to ...* would, however, reduce the range for orders to a value smaller than that for suggestions.

10.3.3.3.2 Hypotheses relating politeness to semantic force

As with the pilot data, the ratings of pairs of directives differing only in semantic force were subjected to the sign test in order to test the predictions made in hypothesis H5. Full details are given in Table C.21 of Appendix C, and a summary appears in Table 10.11. Every one of our predictions is confirmed. Two differences which were non-significant in the pilot test (question versus tag forms with *can* and *would*) did prove significant in the final test, with a larger informant sample.

Table 10.11 also shows the results of 2-tailed sign tests for comparisons where the direction of difference had not been predicted (for details, see Table C.22, Appendix C). In every case of a comparison between positive and negative modals, the negative modal was significantly less polite, so confirming the results of the pilot project in this area. The question form *Must I tell you to ...?* was rated as less polite than *I must tell you to ...*, a result which parallels that for the corresponding directives with *ask* in the pilot project. Again,

QUESTION BELIEF STATEMENT PERFORMANCE PERCENTAGE
 (- STATEMENT) STATEMENT PERFORMANCE PERCENTAGE
 STATEMENT PERFORMANCE PERCENTAGE QUESTION PERFORMANCE PERCENTAGE
 STATEMENT PERFORMANCE PERCENTAGE QUESTION PERFORMANCE PERCENTAGE



Key to symbols:
 a: difference significant at p < 0.05, and in predicted direction
 b: no significant difference, where such a difference had been predicted

Table 19.11

The effects of semantic form, polarity and the syntactic construction of questions on willingness to help

informants appear to be adopting the interpretation 'Must I really ...?' despite the unstressed modal.

Hypothesis H6 is also confirmed by the data in Table 10.11, since, as predicted, the bare request performative is significantly more polite than the bare imperative, which in turn is more polite than the bare command performative (see Table C.23, Appendix C, for details).

Hypothesis H7, predicting a larger politeness range for whimperatives than for tagged forms, is also confirmed, the ranges being: whimperative questions 2.12 to 5.64 (= 3.52), tagged forms 2.64 to 4.70 (= 2.06). Even if we omit the rather special case of *can't* from both sets of figures, the range of 2.62 for whimperatives is still greater than the value of 1.87 found for tagged forms.

10.3.3.3.3 Hypotheses relating politeness to modal semantics

Hypothesis H8 predicts that the tentative form of a given modal will always be more polite than the non-tentative form. Full details of relevant comparisons are given in Table C.24 of Appendix C, and the data are summarised in Table 10.11. All predictions except one are confirmed, the exception being the pair *Might/may I ask you to ...?*, which showed a non-significant difference in both pilot and final tests. The most likely explanation is in terms of a 'saturation' phenomenon: the form with *may* is already so polite that further signals of politeness have no additional effect. The *can/could* pair in this construction does show a significant difference, but this does not invalidate our explanation, since the *can* form has a lower rating (5.96) than the *may*

form (6.74), and is presumably below the saturation level. It should be noted that certain other comparisons which were not significant in the pilot test do show significant differences in the final run, with a larger sample.

Data for comparisons between pairs of individual modals in statements are given in full in Table C.25 of Appendix C, and are summarised in Table 10.12. As with the pilot data, each member of the *will/must/shall* group is less polite than each member of the *should/ought/can* group, as predicted in hypothesis H9. Furthermore, *could* is more polite than any of *should/ought/can*, again as predicted. Comparisons involving *may*, however, do not turn out as predicted. The results of the final test differ slightly from those of the pilot project in that *You may ...*, with a rating of 2.19, is comparable with *You ought ...* and *You should ...*, whereas in the pilot data *may* receives a much higher rating (3.33). Nevertheless, the final test shows that *may* is not significantly different from *should* or *ought*, and is actually more polite than *can*. One possible explanation for these discrepancies is that *may* is probably used most often in interrogatives (especially *May I ...?*), in which it is very polite. It is possible that this politeness is felt to be inherently associated with the modal, in whatever syntactic frame it appears.

Table C.26 of Appendix C gives details of comparisons for which the direction of any difference was not predicted; these too are summarised in Table 10.12. As with the pilot data, *may* is more polite than *will/shall/must*, presumably for the reason advanced above, and *must* is more polite than *will*. It would appear that imposing an obligation is more polite

than stating someone's willingness to perform an act. The final results also show *must* as being more polite than *shall* (a pair which showed a non-significant difference in the pilot data). *You shall ...* and *You will ...* show no significant difference, confirming the pilot results. The two sets of data also agree in the non-significance of differences between the pairs *should/ought*, *ought/can*. *Should* appears as more polite than *can* in the final data, however, whereas the difference was non-significant in the pilot run. It was suggested in §9.4.4.1 that some informants might regard *You can ...* as impolite because of the humbling effect of a permission-based, rather than an ability-based, interpretation.

In Table 10.13 (see Table C.27 of Appendix C for details) the politeness ratings of the various modalised statements are compared with that of the bare imperative. As with the pilot data, *You can/could/may/should/ought ...* are significantly more polite than the imperative, and *You must ...* is not significantly different. The final data, however, show *You will/shall ...* as being significantly less polite than the imperative, while in the pilot data the differences were not large enough to be significant.

Data relevant to hypothesis H10, concerning politeness in whimperative questions, are given in detail in Table C.28 of Appendix C, and are summarised in Table 10.14. All but one of the predictions subsumed under H10 are supported, the exception being that *Won't you ...?* and *Couldn't you ...?* show no significant difference, a result which confirms that for the pilot data. No obvious reason for this discrepancy suggests itself. A number of comparisons which were non-significant for

BARE IMPERATIVE	}	← < →	CAN
	}	← < →	COULD
	}	← > →	WILL
	}	← < →	MAY
	}	← (0) →	MUST
	}	← > →	SHALL
	}	← < →	SHOULD
	}	← < →	OUGHT

Table 10.13

Comparison of politeness of bare
imperative and modalised statements:

final run

the pilot data do show significant differences with the larger sample of informants.

Comparisons where no direction of difference was predicted also show more significant differences for the final data than for the pilot data (see Table C.29, Appendix C, for details, and Table 10.14 for a summary). The greater politeness of the positive *Will you ...?* relative to the negative *Won't you ...?* was noted earlier. *Can* is more polite than *won't*, *couldn't* more polite than *shouldn't* or *oughtn't*, and *shouldn't* more polite than *oughtn't*. This last observation is interesting in view of the fact that in the statement type of directive *should* and *ought* show no significant difference. The final data show no significant difference between *can* and *will*, or between *could* and *would* (cf. the pilot data which showed *will* as more polite than *can* - a rare case of a significant difference in the pilot data which disappears in the final run).

Comparisons for different modals in tagged forms are given in detail in Table C.30 of Appendix C, and summarised in Table 10.15. All the predictions subsumed under hypothesis H11 are supported except for one, viz. that involving *Imp*, *could you?* and *Imp*, *will you?*, which show no significant difference. This reflects the fact that the ratings do not split decisively into two groups corresponding to *would/could* and *will/can/won't* respectively: *could* has a rating of 3.99, quite close to that for *will* (4.20), which is the highest in its group.

Table C.31 of Appendix C shows comparisons for which no direction of difference was predicted. The results are

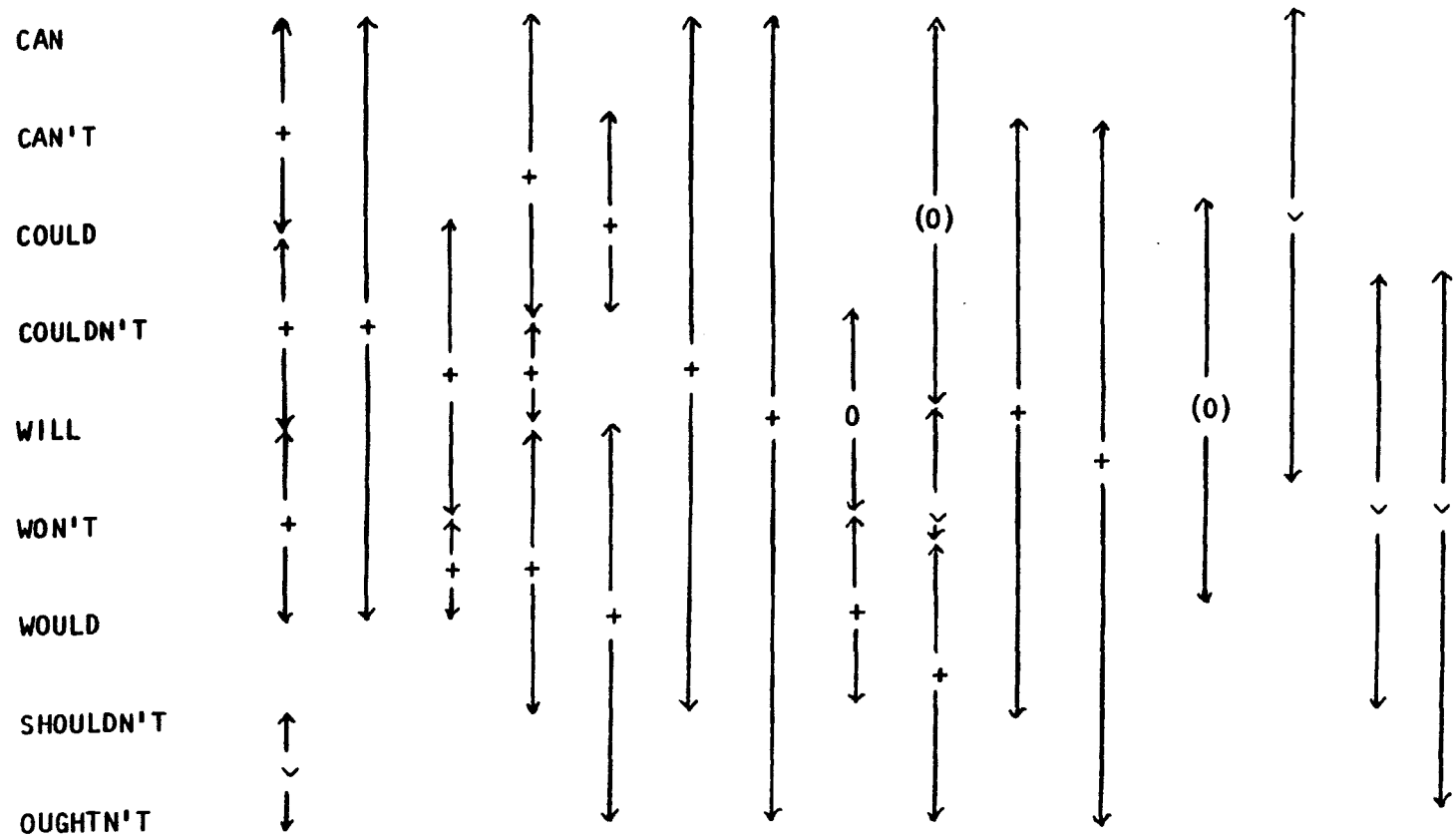


Table 10.14

The effect of individual modals on politeness in
whimperative questions: final run

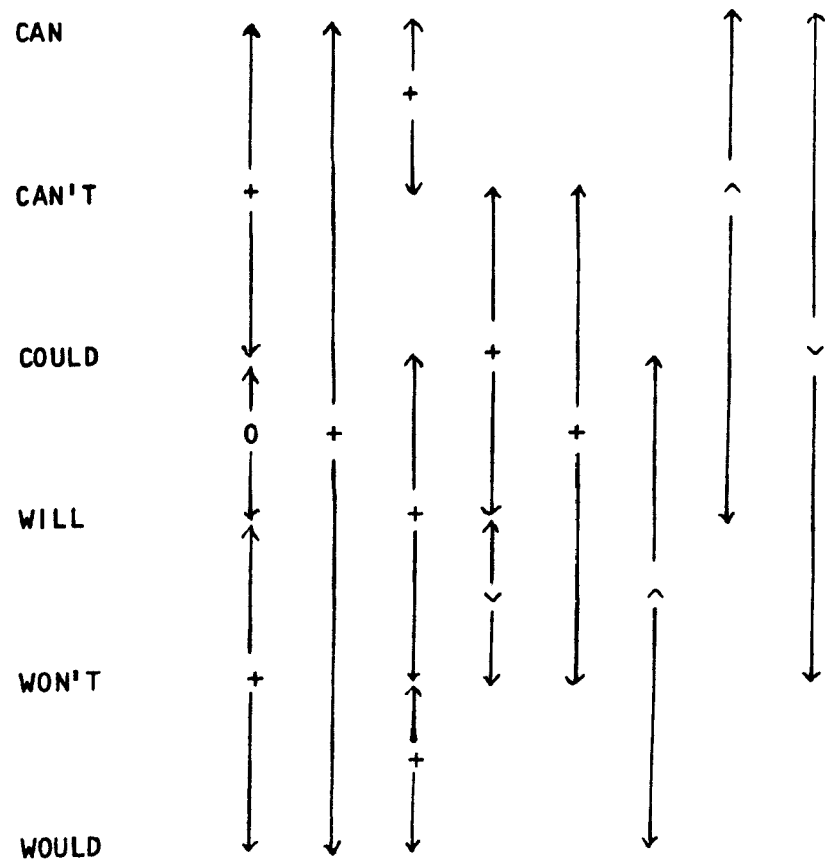


Table 10.15

The effect of individual modals on politeness
in directives with question tags: final run

incorporated into the summary in Table 10.15. *Would* is more polite than *could*, and *will* more polite than *can*: this is particularly interesting in view of the fact that *will* and *can* show a non-significant difference in whimperative questions. This, and the finding with regard to *should(n't)* and *ought(n't)* in statements and questions, discussed earlier, shows that the effects of individual modals on politeness are not entirely independent of the effects of semantic force or polarity. *Imp, can you?* is rated as more polite than *Imp, won't you?*, a result which confirms that for the pilot data.

10.3.4 Re-testing in the final run

38 informants were available for re-testing after 3 - 4 weeks, and were given exactly the same politeness rating tests, under as nearly identical conditions as possible. The sets of scores obtained for the initial test and re-test, for each directive, were compared by means of the sign test. Details of median values, and of the z-scores, are given in Tables C.32 and C.33 of Appendix C. For only one out of the 35 directives was there any significant difference between the test and the re-test scores, and even for this item (*Imp, won't you?*) the difference was only just significant at the 5% level. Although the sign test is admittedly not of the highest power, these comparisons must certainly be taken as very convincing evidence of the high degree of reliability of the testing procedure.

10.4

Concluding remarks

It would seem that the informant tests devised for this study do indeed provide an extremely reliable tool for the investigation of politeness in directives. The very high degree to which our detailed hypotheses were confirmed shows quite clearly that it is possible to correlate the relative politeness and classification of modalised directives with the semantic features of the sentences concerned. Furthermore, the very fact that such predictions are borne out gives us reason to have considerable confidence in the semantic distinctions on which our arguments in Chapter 9 were based.

11: EPILOGUE

Inevitably, the work presented here has left many interesting avenues of research unexplored. An especially valuable extension to the hypothesis framing and testing reported in Part III would be to consider other types of social context, defined by systematic alteration of each of Leech's three 'dimensions of pragmatic space': power relations, social distance between participants, and the 'cost' of the act to the addressee. A series of informant studies based on such a set of contexts would provide information which would be valuable, not only to the linguist, but also to designers and teachers of materials for the 'communicative' teaching of English.

A second, and even more ambitious, project would be to make a contrastive study, across a wide range of language types, of the formal mechanisms for the expression of directive function, and the semantic properties which underlie them. It would be of considerable interest to find out whether the social properties of directly-used sentences could be predicted from the details of their meanings, as we have found for English. Such a contrastive study would also offer much of value to the language teacher and designer of course materials.

Although this present work has focussed on the directive function of modalised sentences, it is hoped that much of it will prove relevant to researchers with other interests. The model presented in Chapter 5 could provide a basis for

many other types of study, which would no doubt reveal many inadequacies, and lead to its revision, or perhaps its replacement. The description of discourse patterning in Chapter 6 is general enough to serve as a starting point for others interested in types of act not investigated here. The work on semantic force in Chapter 7, and on modal meaning in Chapter 8, again has implications which go far beyond the immediate area of the contribution of these meanings to directiveness. And the Informant testing work reported in Chapter 10 gives us reason to hope that such techniques may also be successful in other complex sociolinguistic areas.

APPENDIX A

NETWORKS AND

APPENDICES RULES

A SUMMARY

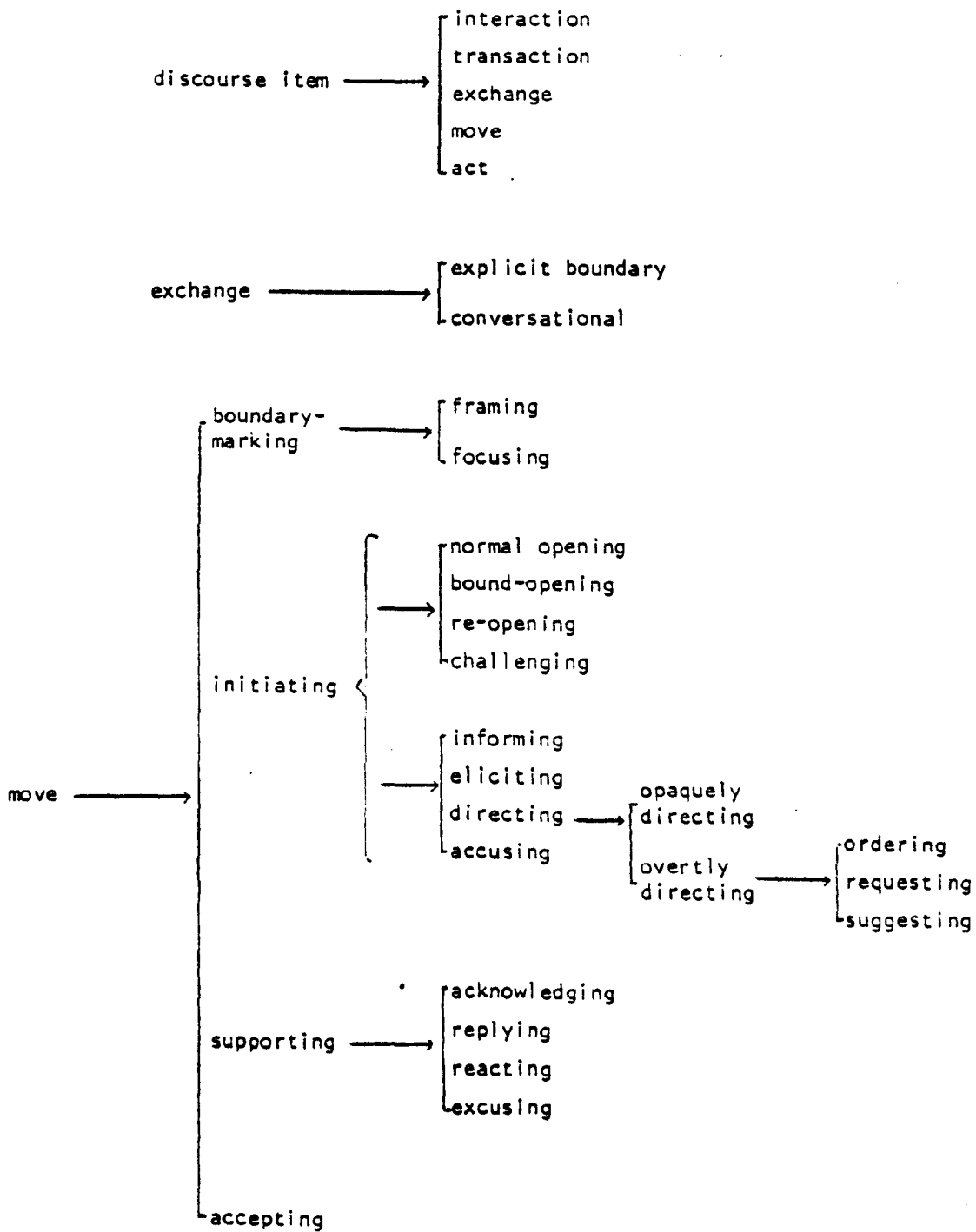
APPENDIX A

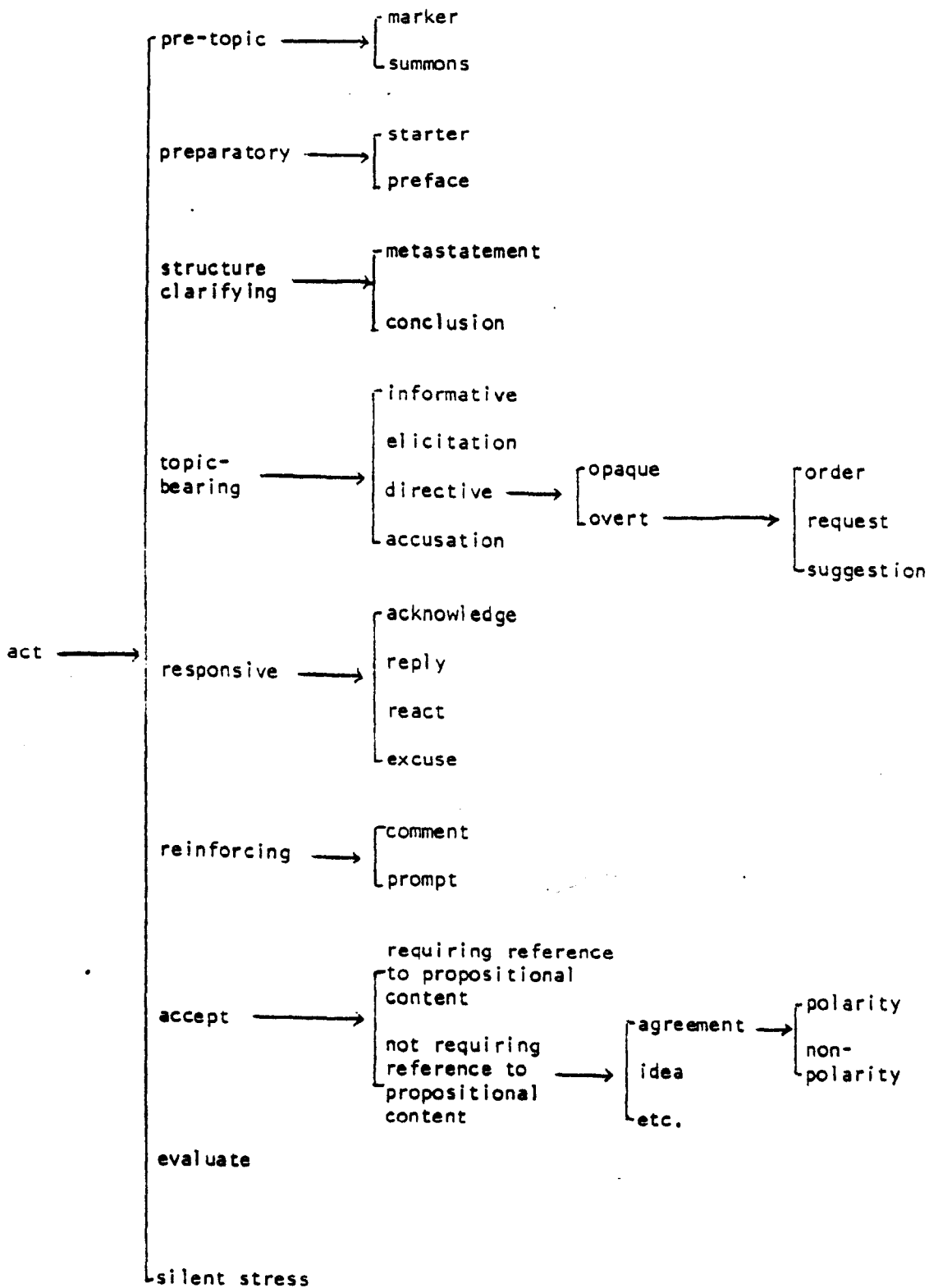
NETWORKS AND

REALISATION RULES:

A SUMMARY

The discourse network





Realisation rules for discourse

Daughter dependency rules

DD1	optional	explicit boundary	→	framing
DD2		explicit boundary	→	focusing
	(optional if DD1 applied, otherwise obligatory)			
DD3		explicit boundary	→	accepting
DD4		conversational	→	{ normal opening re-opening challenging }
DD5		framing	→	pre-topic
DD6		framing	→	silent stress
DD7		focusing	→	structure-clarifying
DD8		informing	→	informative
DD9		eliciting	→	elicitation
DD10a		opaquely directing	→	opaque
DD10b		ordering	→	order
DD10c		requesting	→	request
DD10d		suggesting	→	suggestion
DD11		accusing	→	accusation
DD12	optional	initiating	→	preparatory
DD13	optional	initiating	→	reinforcing
DD14	optional	normal opening	→	pre-topic
DD15		acknowledging	→	acknowledge
DD16		replying	→	reply
DD17		reacting	→	react
DD18		excusing	→	excuse
DD19	optional	supporting	→	evaluate
DD20		accepting	→	accept

Sister dependency rules

SD1 _{optional}	informing	→	acknowledging
SD2 _{optional}	eliciting	→	replying
SD3 _{optional}	directing	→	reacting
SD4 _{optional}	accusing	→	excusing
SD5 _{optional}	supporting	→	bound-opening
SD6 _{optional}	bound-opening	→	supporting
SD7 _{optional}	focusing	→	pre-topic
SD8 _{optional}	focusing	→	starter
SD9 _{optional}	$\left. \begin{array}{l} \text{structure-clarifying} \\ \text{responsive} \\ \text{accept} \end{array} \right\}$		→ comment
SD10a _{optional}	responsive	→	requiring reference / $\left[\begin{array}{l} \text{directing}_{SD3} \\ \text{opaquely} \\ \text{directing} \end{array} \right]$ to propositional content
SD10b _{optional}	responsive	→	non-polarity / $\left[\begin{array}{l} \text{directing}_{SD3} \\ \text{ordering} \end{array} \right]$
SD10c _{optional}	responsive	→	agreement / $\left[\begin{array}{l} \text{directing}_{SD3} \\ \text{requesting} \end{array} \right]$
SD10d _{optional}	responsive	→	not requiring reference to propositional content / $\left[\begin{array}{l} \text{directing}_{SD3} \\ \text{suggesting} \end{array} \right]$

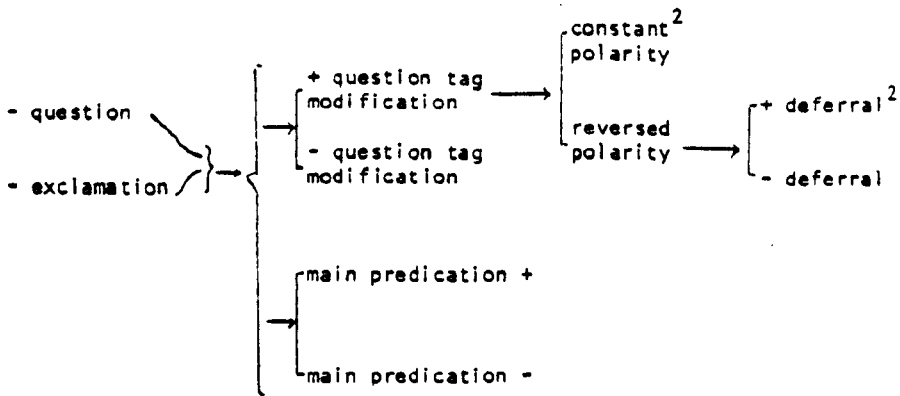
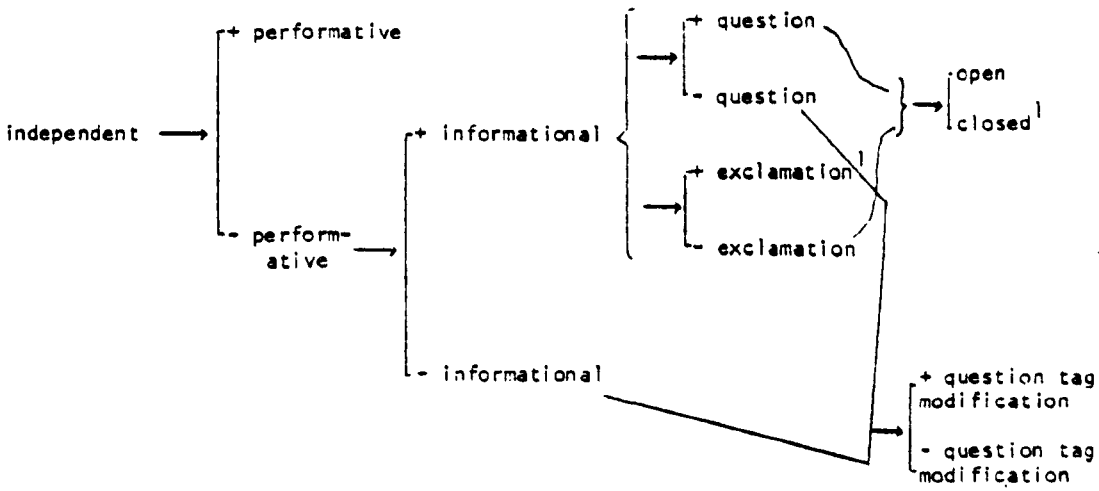
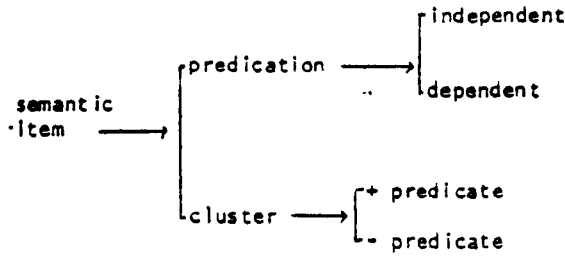
Sequence rules

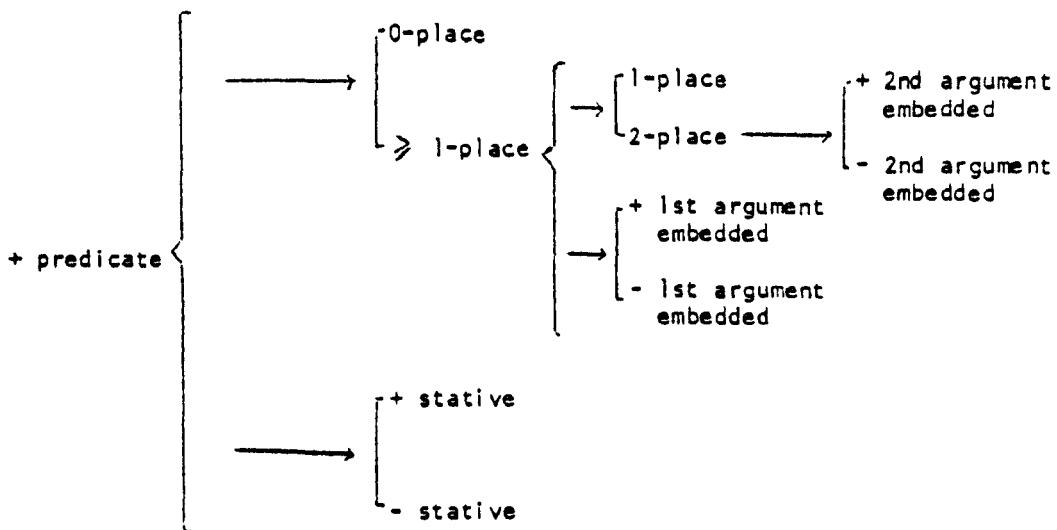
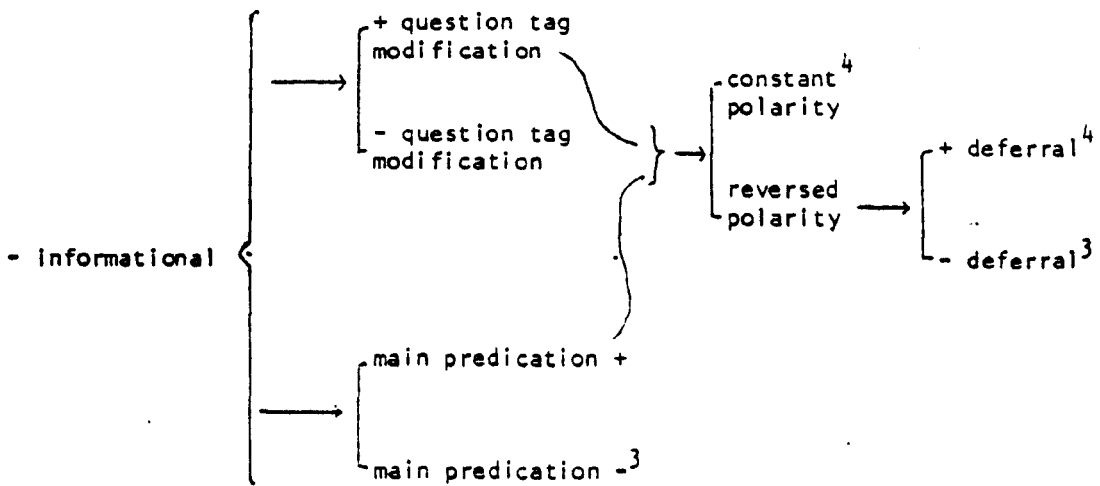
- S1 framing \supseteq focusing \supseteq accepting
- S2 $\left\{ \begin{array}{l} \text{normal opening} \\ \text{challenging} \\ \text{re-opening} \end{array} \right\} \supseteq$ supporting
- S3 supporting_{SD1 - 4} \supseteq bound-opening \supseteq supporting_{SD6}

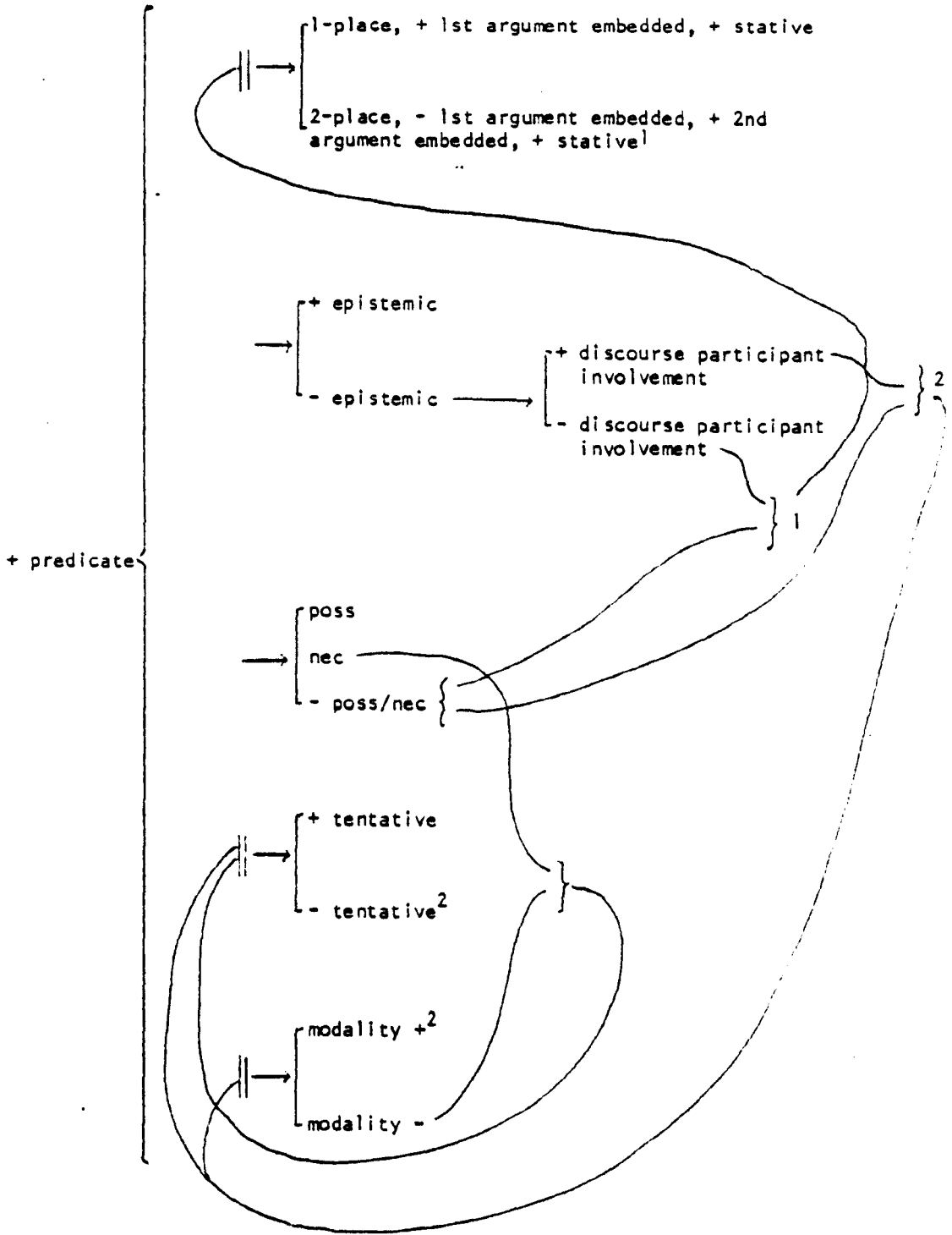
S4 pre-topic \Rightarrow { preparatory
accept
silent stress } \Rightarrow evaluate \Rightarrow

{ structure-clarifying } \Rightarrow reinforcing
topic-bearing
responsive

Semantic networks







FA4 - predicate_{SD1} : $\left. \begin{array}{l} \text{personal} \\ \text{potent} \\ \text{speaker} \end{array} \right\} \left/ \begin{array}{l} \left[\begin{array}{l} + \text{predicate}_{DD1} \\ 2\text{-place} \\ + \text{discourse part.} \\ \text{inv.} \end{array} \right] \\ \left[\begin{array}{l} + \text{predicate}_{DD1} \\ 2\text{-place} \\ - \text{discourse part.} \\ \text{inv.} \end{array} \right] \\ \left[\begin{array}{l} + \text{predicate}_{DD1} \\ 2\text{-place} \\ + \text{epistemic} \end{array} \right] \end{array} \right\}$

Identity rules

11 - predicate_{SD1} \equiv - predicate_{SD2, DD1, SD1}

$\left/ \begin{array}{l} \left[\begin{array}{l} + \text{predicate}_{DD1} \\ 2\text{-place} \\ - \text{epistemic} \end{array} \right] \end{array} \right.$

12 predication_{FA2, SD2} \equiv predication_{DD1}

APPENDIX B

INFORMANT TESTS

Acceptability tests

Pilot run

On the other set of sheets in front of you, you will find a list of sentences, all of which are concerned with opening a window. We want you to look at each sentence carefully, and to decide whether or not you feel it could be used by a native speaker of English in order to get someone else to open a window.

You may feel that some of the sentences are completely unacceptable as ways of getting someone to open a window, or even that they just aren't English at all. In this case, put a ring round the letter U (for UNACCEPTABLE) in the list by the side of the sentence concerned.

But if you feel that the sentence could be used to get someone to open a window, even if you think that it might be rather impolite, or would be used only in special circumstances, then we want you to decide whether the sentence is an ORDER (O), a REQUEST (R), or a SUGGESTION (S), and to put a ring round the appropriate letter.

PLEASE REMEMBER TO PUT YOUR NAME AND DEPARTMENT, IN BLOCK CAPITALS, IN THE SPACES PROVIDED ON THE TEST SHEET.

NAME:

DEPARTMENT:

	ORDER	REQUEST	SUGGES- TION	UNACCEPT- ABLE
I can tell you to open the window.	0	R	S	U
Ought I to ask you to open the window?	0	R	S	U
I can ask you to open the window.	0	R	S	U
I could tell you to open the window.	0	R	S	U
Open the window, could you?	0	R	S	U
Open the window, won't you?	0	R	S	U
Oughtn't you to open the window?	0	R	S	U
Open the window, might you?	0	R	S	U
Open the window, ought you?	0	R	S	U
I may ask you to open the window.	0	R	S	U
Shan't you open the window?	0	R	S	U
I ought to ask you to open the window.	0	R	S	U
Open the window, couldn't you?	0	R	S	U
I ask you to open the window.	0	R	S	U
I would ask you to open the window.	0	R	S	U
Can't you open the window?	0	R	S	U
I shall ask you to open the window.	0	R	S	U
Open the window, shan't you?	0	R	S	U
Must I ask you to open the window?	0	R	S	U
I shall tell you to open the window.	0	R	S	U
You would open the window.	0	R	S	U
Would you open the window?	0	R	S	U
Wouldn't you open the window?	0	R	S	U
Could you open the window?	0	R	S	U
Open the window, must you?	0	R	S	U
I must ask you to open the window.	0	R	S	U

Please turn over

	ORDER	REQUEST	SUGGES- TION	UNACCEPT- ABLE
I may tell you to open the window.	0	R	S	U
Open the window, wouldn't you?	0	R	S	U
Open the window, mightn't you?	0	R	S	U
I should tell you to open the window.	0	R	S	U
I will ask you to open the window.	0	R	S	U
You can open the window.	0	R	S	U
Couldn't you open the window?	0	R	S	U
Open the window, mustn't you?	0	R	S	U
Should you open the window?	0	R	S	U
I will tell you to open the window.	0	R	S	U
Won't you open the window?	0	R	S	U
Shall I tell you to open the window?	0	R	S	U
I tell you to open the window.	0	R	S	U
I might ask you to open the window.	0	R	S	U
You may open the window.	0	R	S	U
Would I ask you to open the window?	0	R	S	U
Open the window, oughtn't you?	0	R	S	U
I should ask you to open the window.	0	R	S	U
Might I ask you to open the window?	0	R	S	U
Can you open the window?	0	R	S	U
I might tell you to open the window.	0	R	S	U
Must you open the window?	0	R	S	U
Shouldn't you open the window?	0	R	S	U
Will I tell you to open the window?	0	R	S	U
I must tell you to open the window.	0	R	S	U
I would tell you to open the window.	0	R	S	U
Must I tell you to open the window?	0	R	S	U
Mustn't you open the window?	0	R	S	U
Open the window, mayn't you?	0	R	S	U

	ORDER	REQUEST	SUGGES- TION	UNACCEPT- ABLE
Might I tell you to open the window?	0	R	S	U
You ought to open the window.	0	R	S	U
I could ask you to open the window.	0	R	S	U
Open the window.	0	R	S	U
Ought you to open the window?	0	R	S	U
Open the window, can you?	0	R	S	U
Can I ask you to open the window?	0	R	S	U
Open the window, shouldn't you?	0	R	S	U
Might you open the window?	0	R	S	U
Will I ask you to open the window?	0	R	S	U
You shall open the window.	0	R	S	U
Ought I to tell you to open the window?	0	R	S	U
Would I tell you to open the window?	0	R	S	U
Open the window, may you?	0	R	S	U
You should open the window.	0	R	S	U
Open the window, should you?	0	R	S	U
Open the window, will you?	0	R	S	U
You might open the window.	0	R	S	U
Shall I ask you to open the window?	0	R	S	U
Open the window, can't you?	0	R	S	U
Can I tell you to open the window?	0	R	S	U
Could I ask you to open the window?	0	R	S	U
Mayn't you open the window?	0	R	S	U
You will open the window.	0	R	S	U
Will you open the window?	0	R	S	U
Shall you open the window?	0	R	S	U
Should I tell you to open the window?	0	R	S	U

Please turn over

	ORDER	REQUEST	SUGGES- TION	UNACCEPT- ABLE
Open the window, would you?	0	R	S	U
Could I tell you to open the window?	0	R	S	U
May you open the window?	0	R	S	U
Should I ask you to open the window?	0	R	S	U
Mightn't you open the window?	0	R	S	U
May I ask you to open the window?	0	R	S	U
Open the window, shall you?	0	R	S	U
May I tell you to open the window?	0	R	S	U
You could open the window.	0	R	S	U
You must open the window.	0	R	S	U
I ought to tell you to open the window.	0	R	S	U

PLEASE MAKE SURE YOU HAVE NOT MISSED ANY
OF THE ITEMS

NAME:

DEPARTMENT:

	ORDER	REQUEST	SUGGES- TION	UNACCEPT- ABLE
I ought to tell you to open the window.	0	R	S	U
You must open the window.	0	R	S	U
You could open the window.	0	R	S	U
May I tell you to open the window?	0	R	S	U
Open the window, shall you?	0	R	S	U
May I ask you to open the window?	0	R	S	U
Mightn't you open the window?	0	R	S	U
Should I ask you to open the window?	0	R	S	U
May you open the window?	0	R	S	U
Could I tell you to open the window?	0	R	S	U
Open the window, would you?	0	R	S	U
Should I tell you to open the window?	0	R	S	U
Shall you open the window?	0	R	S	U
Will you open the window?	0	R	S	U
You will open the window.	0	R	S	U
Mayn't you open the window?	0	R	S	U
Could I ask you to open the window?	0	R	S	U
Can I tell you to open the window?	0	R	S	U
Open the window, can't you?	0	R	S	U
Shall I ask you to open the window?	0	R	S	U
You might open the window.	0	R	S	U
Open the window, will you?	0	R	S	U
Open the window, should you?	0	R	S	U
You should open the window.	0	R	S	U
Open the window, may you?	0	R	S	U
Would I tell you to open the window?	0	R	S	U
Ought I to tell you to open the window?	0	R	S	U

Please turn over

	ORDER	REQUEST	SUGGES- TION	UNACCEPT- ABLE
You shall open the window.	0	R	S	U
Will I ask you to open the window?	0	R	S	U
Might you open the window?	0	R	S	U
Open the window, shouldn't you?	0	R	S	U
Can I ask you to open the window?	0	R	S	U
Open the window, can you?	0	R	S	U
Ought you to open the window?	0	R	S	U
Open the window.	0	R	S	U
I could ask you to open the window.	0	R	S	U
You ought to open the window.	0	R	S	U
Might I tell you to open the window?	0	R	S	U
Open the window, mayn't you?	0	R	S	U
Mustn't you open the window?	0	R	S	U
Must I tell you to open the window?	0	R	S	U
I would tell you to open the window.	0	R	S	U
I must tell you to open the window.	0	R	S	U
Will I tell you to open the window?	0	R	S	U
Shouldn't you open the window?	0	R	S	U
Must you open the window?	0	R	S	U
I might tell you to open the window.	0	R	S	U
Can you open the window?	0	R	S	U
Might I ask you to open the window?	0	R	S	U
I should ask you to open the window.	0	R	S	U
Open the window, oughtn't you?	0	R	S	U
Would I ask you to open the window?	0	R	S	U
You may open the window.	0	R	S	U
I might ask you to open the window.	0	R	S	U
I tell you to open the window.	0	R	S	U
Shall I tell you to open the window?	0	R	S	U

	ORDER	REQUEST	SUGGES- TION	UNACCEPT- ABLE
Won't you open the window?	0	R	S	U
I will tell you to open the window.	0	R	S	U
Should you open the window?	0	R	S	U
Open the window, mustn't you?	0	R	S	U
Couldn't you open the window?	0	R	S	U
You can open the window.	0	R	S	U
I will ask you to open the window.	0	R	S	U
I should tell you to open the window.	0	R	S	U
Open the window, mightn't you?	0	R	S	U
Open the window, wouldn't you?	0	R	S	U
I may tell you to open the window.	0	R	S	U
I must ask you to open the window.	0	R	S	U
Open the window, must you?	0	R	S	U
Could you open the window?	0	R	S	U
Wouldn't you open the window?	0	R	S	U
Would you open the window?	0	R	S	U
You would open the window.	0	R	S	U
I shall tell you to open the window.	0	R	S	U
Must I ask you to open the window?	0	R	S	U
Open the window, shan't you?	0	R	S	U
I shall ask you to open the window.	0	R	S	U
Can't you open the window?	0	R	S	U
I would ask you to open the window.	0	R	S	U
I ask you to open the window.	0	R	S	U
Open the window, couldn't you?	0	R	S	U
I ought to ask you to open the window.	0	R	S	U
Shan't you open the window?	0	R	S	U
I may ask you to open the window.	0	R	S	U

	ORDER	REQUEST	SUGGES- TION	UNACCEP- TABLE
Open the window, ought you?	0	R	S	U
Open the window, might you?	0	R	S	U
Oughtn't you to open the window?	0	R	S	U
Open the window, won't you?	0	R	S	U
Open the window, could you?	0	R	S	U
I could tell you to open the window.	0	R	S	U
I can ask you to open the window.	0	R	S	U
Ought I to ask you to open the window?	0	R	S	U
I can tell you to open the window.	0	R	S	U

PLEASE MAKE SURE YOU HAVE NOT MISSED ANY
OF THE ITEMS

Politeness rating tests

Pilot run

You are going to hear a series of spoken sentences, recorded on tape. These sentences are also written down on the other sheet in front of you, but please do not turn this sheet over until you are asked to do so.

Please imagine that you are sitting in a room within easy reach of the only window, and that the window is closed. Imagine that an acquaintance (not a close friend) of the same age and sex as yourself is sitting on the opposite side of the room. We want you to imagine that each of the sentences you hear is being spoken to you, exactly as you hear it, by this acquaintance.

When you hear each sentence, decide how polite a way it is of getting you to open the window. There are seven points on the politeness scale for you to choose from - the higher the number on the scale, the greater the degree of politeness. So 1 corresponds to 'very impolite', 4 to 'neither polite nor impolite', and 7 to 'very polite'. The numbers in between correspond to intermediate degrees of politeness.

Please put a ring round the choice you feel corresponds most closely to the degree of politeness of the sentence.

Please try to use as much of the scale as you can.

YOU WILL NOTICE THAT AN EIGHTH CHOICE (UNACCEPTABLE (U)) HAS BEEN ADDED TO THE ABOVE SEVEN. YOU SHOULD PUT A RING ROUND THIS ONLY AS A LAST RESORT, IF YOU FEEL THAT THE SENTENCE COULD NOT POSSIBLY BE USED TO GET YOU TO OPEN THE WINDOW.

You will hear each sentence twice. The first time, it will be followed by a pause to let you think about it. The second time, it will be followed by only a short pause before we go on to the next sentence.

If anything in these instructions is not clear to you, please ask for clarification. When you are quite satisfied that you understand exactly what you are being asked to do, please wait until you are asked to turn the other sheet over.

PLEASE REMEMBER TO PUT YOUR NAME AND DEPARTMENT ON THE SHEET IN THE SPACES PROVIDED.

NAME:

DEPARTMENT:

	VERY IMPOLITE		3	NEITHER POLITE NOR IMPOLITE		6	VERY POLITE	UNACCEPT- ABLE U
	1	2		4	5		7	
Might I ask you to open the window?	1	2	3	4	5	6	7	U
Would you open the window?	1	2	3	4	5	6	7	U
Open the window.	1	2	3	4	5	6	7	U
Can you open the window?	1	2	3	4	5	6	7	U
Must I ask you to open the window?	1	2	3	4	5	6	7	U
You can open the window.	1	2	3	4	5	6	7	U
You ought to open the window.	1	2	3	4	5	6	7	U
You will open the window.	1	2	3	4	5	6	7	U
Won't you open the window?	1	2	3	4	5	6	7	U
Can't you open the window?	1	2	3	4	5	6	7	U
I must tell you to open the window.	1	2	3	4	5	6	7	U
Can I ask you to open the window?	1	2	3	4	5	6	7	U
Shouldn't you open the window?	1	2	3	4	5	6	7	U
Oughtn't you to open the window?	1	2	3	4	5	6	7	U
Open the window, won't you?	1	2	3	4	5	6	7	U
You shall open the window.	1	2	3	4	5	6	7	U
Will you open the window?	1	2	3	4	5	6	7	U
You must open the window.	1	2	3	4	5	6	7	U
You should open the window.	1	2	3	4	5	6	7	U
Open the window, could you?	1	2	3	4	5	6	7	U
Open the window, can you?	1	2	3	4	5	6	7	U
Couldn't you open the window?	1	2	3	4	5	6	7	U
You might open the window.	1	2	3	4	5	6	7	U

	VERY IMPOLITE 1	2	3	NEITHER POLITE NOR IMPOLITE 4	5	6	VERY POLITE 7	UNACCEPT- ABLE U
Open the window, would you?	1	2	3	4	5	6	7	U
I ask you to open the window.	1	2	3	4	5	6	7	U
Could you open the window?	1	2	3	4	5	6	7	U
I tell you to open the window.	1	2	3	4	5	6	7	U
I must ask you to open the window.	1	2	3	4	5	6	7	U
Open the window, will you?	1	2	3	4	5	6	7	U
Could I ask you to open the window?	1	2	3	4	5	6	7	U
Open the window, can't you?	1	2	3	4	5	6	7	U
I will ask you to open the window.	1	2	3	4	5	6	7	U
May I ask you to open the window?	1	2	3	4	5	6	7	U
You may open the window.	1	2	3	4	5	6	7	U
You could open the window.	1	2	3	4	5	6	7	U

	<u>NAME:</u>							
	<u>DEPARTMENT:</u>							
	VERY IMPOLITE			NEITHER POLITE NOR IMPOLITE			VERY POLITE	UNACCEPT- ABLE
	1	2	3	4	5	6	7	U
You could open the window.	1	2	3	4	5	6	7	U
You may open the window.	1	2	3	4	5	6	7	U
May I ask you to open the window?	1	2	3	4	5	6	7	U
I will ask you to open the window.	1	2	3	4	5	6	7	U
Open the window, can't you?	1	2	3	4	5	6	7	U
Could I ask you to open the window?	1	2	3	4	5	6	7	U
Open the window, will you?	1	2	3	4	5	6	7	U
I must ask you to open the window.	1	2	3	4	5	6	7	U
I tell you to open the window.	1	2	3	4	5	6	7	U
Could you open the window?	1	2	3	4	5	6	7	U
I ask you to open the window.	1	2	3	4	5	6	7	U
Open the window, would you?	1	2	3	4	5	6	7	U
You might open the window.	1	2	3	4	5	6	7	U
Couldn't you open the window?	1	2	3	4	5	6	7	U
Open the window, can you?	1	2	3	4	5	6	7	U
Open the window, could you?	1	2	3	4	5	6	7	U
You should open the window.	1	2	3	4	5	6	7	U
You must open the window.	1	2	3	4	5	6	7	U
Will you open the window?	1	2	3	4	5	6	7	U
You shall open the window.	1	2	3	4	5	6	7	U
Open the window, won't you?	1	2	3	4	5	6	7	U
Oughtn't you to open the window?	1	2	3	4	5	6	7	U
Shouldn't you open the window?	1	2	3	4	5	6	7	U

	VERY IMPOLITE		NEITHER POLITE NOR IMPOLITE			VERY POLITE		UNACCEPT- ABLE
	1	2	3	4	5	6	7	U
Can I ask you to open the window?	1	2	3	4	5	6	7	U
I must tell you to open the window.	1	2	3	4	5	6	7	U
Can't you open the window?	1	2	3	4	5	6	7	U
Won't you open the window?	1	2	3	4	5	6	7	U
You will open the window.	1	2	3	4	5	6	7	U
You ought to open the window.	1	2	3	4	5	6	7	U
You can open the window.	1	2	3	4	5	6	7	U
Must I ask you to open the window?	1	2	3	4	5	6	7	U
Can you open the window?	1	2	3	4	5	6	7	U
Open the window.	1	2	3	4	5	6	7	U
Would you open the window?	1	2	3	4	5	6	7	U
Might I ask you to open the window?	1	2	3	4	5	6	7	U

Acceptability tests

Final investigation

NAME:

AGE: yrs. months

SEX:

MAIN SUBJECT:

SUBSIDIARY SUBJECTS (if any):

MAIN PLACES OF RESIDENCE:

(please give here all the places you have lived in since birth, with dates - e.g. Plymouth 1957-1964, Newcastle upon Tyne 1964-1975)

You are going to hear a series of spoken sentences, recorded on tape. These sentences are also written down on the next set of sheets in front of you, but please do not turn these sheets over until you are asked to do so.

Each sentence you hear will be concerned with someone opening a window. We want you to listen carefully to each sentence, noting exactly how it is said, and we then want you to decide whether the sentence, exactly as spoken on the tape, could be used by a native speaker of English in order to get someone to open a window.

You may feel that some of the sentences, as they are spoken on the tape, are completely unacceptable as ways of getting someone to open a window, or even that they just aren't English at all. In this case, put a ring round the letter U (for UNACCEPTABLE) in the list by the side of the sentence concerned.

But if you feel that the sentence could be used to get someone to open a window, even if you think that it might be rather impolite, or would be used only in special circumstances, then we want you to decide whether the sentence is an ORDER (O), a REQUEST (R), or a SUGGESTION (S), and to put a ring round the appropriate letter.

You will hear each sentence twice. The first time, it will be followed by a pause to let you think about it. The second time, it will be followed by only a very short pause before we go on to the next sentence.

If anything in these instructions is not clear to you, please ask for clarification. When you are quite satisfied that you understand exactly what you are being asked to do, please wait until you are asked to turn the next set of sheets over.

PLEASE REMEMBER TO PUT YOUR NAME AND DEPARTMENT ON THE SHEETS, IN THE SPACES PROVIDED.

NAME: - 461 -

DEPARTMENT:

	ORDER	REQUEST	SUGGES- TION	UNACCEPT- ABLE
I can tell you to open the window.	0	R	S	U
Ought I to ask you to open the window?	0	R	S	U
I can ask you to open the window.	0	R	S	U
I could tell you to open the window.	0	R	S	U
Open the window, could you?	0	R	S	U
Open the window, won't you?	0	R	S	U
Oughtn't you to open the window?	0	R	S	U
Open the window, might you?	0	R	S	U
Open the window, ought you?	0	R	S	U
I may ask you to open the window.	0	R	S	U
Shan't you open the window?	0	R	S	U
I ought to ask you to open the window.	0	R	S	U
Open the window, couldn't you?	0	R	S	U
I ask you to open the window.	0	R	S	U
I would ask you to open the window.	0	R	S	U
Can't you open the window?	0	R	S	U
I shall ask you to open the window.	0	R	S	U
Open the window, shan't you?	0	R	S	U
Must I ask you to open the window?	0	R	S	U
I shall tell you to open the window.	0	R	S	U
You would open the window.	0	R	S	U
Would you open the window?	0	R	S	U
Wouldn't you open the window?	0	R	S	U
Could you open the window?	0	R	S	U
Open the window, must you?	0	R	S	U
I must ask you to open the window.	0	R	S	U

Please turn over

	ORDER	REQUEST	SUGGES- TION	UNACCEPT- ABLE
I may tell you to open the window.	0	R	S	U
Open the window, wouldn't you?	0	R	S	U
Open the window, mightn't you?	0	R	S	U
I should tell you to open the window.	0	R	S	U
I will ask you to open the window.	0	R	S	U
You can open the window.	0	R	S	U
Couldn't you open the window?	0	R	S	U
Open the window, mustn't you?	0	R	S	U
Should you open the window?	0	R	S	U
I will tell you to open the window.	0	R	S	U
Won't you open the window.	0	R	S	U
Shall I tell you to open the window?	0	R	S	U
I tell you to open the window.	0	R	S	U
I might ask you to open the window.	0	R	S	U
You may open the window.	0	R	S	U
Would I ask you to open the window?	0	R	S	U
Open the window, oughtn't you?	0	R	S	U
I should ask you to open the window.	0	R	S	U
Might I ask you to open the window?	0	R	S	U
Can you open the window?	0	R	S	U

PLEASE MAKE SURE YOU HAVE NOT MISSED ANY
OF THE ITEMS

NAME:

DEPARTMENT:

	ORDER	REQUEST	SUGGES- TION	UNACCEPT- ABLE
I might tell you to open the window.	0	R	S	U
Must you open the window?	0	R	S	U
Shouldn't you open the window?	0	R	S	U
Will I tell you to open the window?	0	R	S	U
I must tell you to open the window.	0	R	S	U
I would tell you to open the window.	0	R	S	U
Must I tell you to open the window?	0	R	S	U
Mustn't you open the window?	0	R	S	U
Open the window, mayn't you?	0	R	S	U
Might I tell you to open the window?	0	R	S	U
You ought to open the window.	0	R	S	U
I could ask you to open the window.	0	R	S	U
Open the window.	0	R	S	U
Ought you to open the window?	0	R	S	U
Open the window, can you?	0	R	S	U
Can I ask you to open the window?	0	R	S	U
Open the window, shouldn't you?	0	R	S	U
Might you open the window?	0	R	S	U
Will I ask you to open the window?	0	R	S	U
You shall open the window.	0	R	S	U
Ought I to tell you to open the window?	0	R	S	U
Would I tell you to open the window?	0	R	S	U
Open the window, may you?	0	R	S	U
You should open the window.	0	R	S	U
Open the window, should you?	0	R	S	U
Open the window, will you?	0	R	S	U
You might open the window.	0	R	S	U

Please turn over

	ORDER	REQUEST	SUGGES- TION	UNACCEPT- ABLE
Shall I ask you to open the window?	0	R	S	U
Open the window, can't you?	0	R	S	U
Can I tell you to open the window?	0	R	S	U
Could I ask you to open the window?	0	R	S	U
Mayn't you open the window?	0	R	S	U
You will open the window.	0	R	S	U
Will you open the window?	0	R	S	U
Shall you open the window?	0	R	S	U
Should I tell you to open the window?	0	R	S	U
Open the window, would you?	0	R	S	U
Could I tell you to open the window?	0	R	S	U
May you open the window?	0	R	S	U
Should I ask you to open the window?	0	R	S	U
Mightn't you open the window?	0	R	S	U
May I ask you to open the window?	0	R	S	U
Open the window, shall you?	0	R	S	U
May I tell you to open the window?	0	R	S	U
You could open the window.	0	R	S	U
You must open the window.	0	R	S	U
I ought to tell you to open the window.	0	R	S	U

PLEASE MAKE SURE YOU HAVE NOT MISSED ANY
OF THE ITEMS

Politeness rating tests

Final investigation

You are going to hear a series of spoken sentences, recorded on tape. These sentences are also written down on the next set of sheets in front of you, but please do not turn these sheets over until you are asked to do so.

Please imagine that you are sitting in a room within easy reach of the only window, and that the window is closed. Imagine that an acquaintance (not a close friend) of the same age and sex as yourself is sitting on the opposite side of the room. We want you to imagine that each of the sentences you hear is being spoken to you, exactly as you hear it, by this acquaintance.

We want you to listen carefully to each sentence, noting exactly how it is said, and we then want you to decide how polite a way it is of getting you to open the window. There are seven points on the politeness scale for you to choose from - the higher the number on the scale, the greater the degree of politeness. So 1 corresponds to 'very impolite', 4 to 'neither polite nor impolite', and 7 to 'very polite'. The numbers in between correspond to intermediate degrees of politeness.

Please put a ring round the choice you feel corresponds most closely to the degree of politeness of the sentence.

Please try to use as much of the scale as you can.

YOU WILL NOTICE THAT AN EIGHTH CHOICE (UNACCEPTABLE (U)) HAS BEEN ADDED TO THE ABOVE SEVEN. YOU SHOULD PUT A RING ROUND THIS ONLY AS A LAST RESORT, IF YOU FEEL THAT THE SENTENCE COULD NOT POSSIBLY BE USED TO GET YOU TO OPEN THE WINDOW.

You will hear each sentence twice. The first time, it will be followed by a pause to let you think about it. The second time, it will be followed by only a very short pause before we go on to the next sentence.

If anything in these instructions is not clear to you, please ask for clarification. When you are quite satisfied that you understand exactly what you are being asked to do, please wait until you are asked to turn the other sheets over.

PLEASE REMEMBER TO PUT YOUR NAME AND DEPARTMENT ON THE SHEETS IN THE SPACES PROVIDED.

NAME:

DEPARTMENT:

	VERY IMPOLITE 1	2	3	NEITHER POLITE NOR IMPOLITE 4	5	6	VERY POLITE 7	UNACCEPT- ABLE U
Open the window, could you?	1	2	3	4	5	6	7	U
Open the window, won't you?	1	2	3	4	5	6	7	U
Oughtn't you to open the window?	1	2	3	4	5	6	7	U
I ask you to open the window.	1	2	3	4	5	6	7	U
Can't you open the window?	1	2	3	4	5	6	7	U
I shall ask you to open the window.	1	2	3	4	5	6	7	U
Would you open the window?	1	2	3	4	5	6	7	U
Could you open the window?	1	2	3	4	5	6	7	U
I must ask you to open the window.	1	2	3	4	5	6	7	U
I will ask you to open the window.	1	2	3	4	5	6	7	U
You can open the window.	1	2	3	4	5	6	7	U
Couldn't you open the window?	1	2	3	4	5	6	7	U
Won't you open the window?	1	2	3	4	5	6	7	U
I tell you to open the window.	1	2	3	4	5	6	7	U
You may open the window.	1	2	3	4	5	6	7	U
Might I ask you to open the window?	1	2	3	4	5	6	7	U
Can you open the window?	1	2	3	4	5	6	7	U
Shouldn't you open the window?	1	2	3	4	5	6	7	U
I must tell you to open the window.	1	2	3	4	5	6	7	U
Must I tell you to open the window?	1	2	3	4	5	6	7	U
You ought to open the window.	1	2	3	4	5	6	7	U
Open the window.	1	2	3	4	5	6	7	U

	VERY IMPOLITE 1	2	3	NEITHER POLITE NOR IMPOLITE 4	5	6	VERY POLITE 7	UNACCEPT- ABLE U
Open the window, can you?	1	2	3	4	5	6	7	U
Can I ask you to open the window?	1	2	3	4	5	6	7	U
You shall open the window.	1	2	3	4	5	6	7	U
You should open the window.	1	2	3	4	5	6	7	U
Open the window, will you?	1	2	3	4	5	6	7	U
Open the window, can't you?	1	2	3	4	5	6	7	U
Could I ask you to open the window?	1	2	3	4	5	6	7	U
You will open the window.	1	2	3	4	5	6	7	U
Will you open the window?	1	2	3	4	5	6	7	U
Open the window, would you?	1	2	3	4	5	6	7	U
May I ask you to open the window?	1	2	3	4	5	6	7	U
You could open the window.	1	2	3	4	5	6	7	U
You must open the window.	1	2	3	4	5	6	7	U

APPENDIX C

RESULTS OF HYPOTHESIS

TESTING:

DETAILED TABLES

SEMANTIC FORCE / POLARITY									
NORMAL	QUESTION - (DECLARATION (- STATEMENT))	POSITIVE QUESTION	NEGATIVE QUESTION	- IMPR. POS. TAG	- IMPR. NEG. TAG	STATEMENT PERFORMATIVE		QUESTION PERFORMATIVE	
						ASK	TOTAL	ASK	TOTAL
0				0100 50	00 00	001 53	002 50	000 50	000 50
CAD	013 08 059	01 087 110	015 026 023	010 079 50	051 011 55	005 045 531	020 046 016	00 005 50	01 040 050
COMB	01 010 087	00 037 53	00 046 09	05 065 50	010 014 011	047 023 046	00 002 046	00 002 05	03 023 030
PHLL	057 00 01	05 031 00	05 079 015	020 049 50	010 077 03	045 046 021	059 05	00 01 026	05 05 072
UMBL	00 010 018	00 030 15	00 050 013	01 057 00	03 062 51	00 026 069	013 036 049	00 05 029	00 05 023
MY	006 05 059	00 021 110	00 019 069	00 00 050	00 015 00	00 00 059	00 013 046	00 00 013	00 02 05
HTM	010 010 067	00 044 115	00 023 061	00 00 090	00 05 010	00 020 045	010 046 041	00 00 023	00 074 033
POST	005 01 01	00 024 020	01 013 062	00 00 0100	00 00 53	067 031 00	002 05 010	00 00 010	00 041 010
SMALL	007 00 013	00 021 065	00 013 067	00 00 092	05 05 090	011 061 021	062 03 013	00 05 041	015 015 044
SMALL	046 049 01	00 05 059	00 021 074	00 010 53	00 05 007	00 05 016	013 046 049	00 00 046	00 040 049
QUANT	012 05 042	01 010 016	00 05 082	00 03 50	00 02 050	00 010 015	00 03 047	00 015 020	00 015 030

Table C.1

Percentages of informants classifying each test item as an order (0), request (1), suggestion (2), or as unacceptable (3); pilot data

N.B. Deviations from a total of 100% are due to omission of items by informants.

MODAL	SEMANTIC FORCE / POLARITY								
	- QUESTION - EXCLAMATION (= STATEMENT)	POSITIVE QUESTION	NEGATIVE QUESTION	- INFO. POS. TAG	- INFO. NEG. TAG	STATEMENT PERFORMATIVE		QUESTION PERFORMATIVE	
						ASK	TELL	ASK	TELL
#				1.33 (33)		2.69 (37)	1.09 (33)		
CAN	2.90 (32)	4.20 (33)	1.98 (33)	4.00 (31)	1.26 (32)			6.22 (33)	
COULD	3.17 (32)	5.76 (33)	3.05 (33)	5.00 (31)				6.42 (32)	
WILL	1.13 (33)	5.15 (33)	4.43 (33)	4.31 (33)	3.61 (30)	2.80 (29)			
WOULD		5.31 (33)		5.00 (33)					
MAY	3.33 (32)							6.68 (33)	
MIGHT	3.26 (29)							6.78 (33)	
MUST	1.33 (33)					3.04 (33)	1.67 (32)	1.68 (32)	
SHALL	1.20 (32)								
SHOULD	2.09 (33)		3.62 (33)						
UGHT	2.56 (33)		3.42 (32)						

Table C.2

Median politeness ratings for the 'acceptable' directives,
with number of cases for each: pilot data

MODAL	FORM PREDICTED TO BE MORE POLITE	MEDIAN SCORE	FORM PREDICTED TO BE LESS POLITE	MEDIAN SCORE	Z-VALUE AND SIGNIFICANCE
CAN	Can I ask you to ...?	6.22	Can you ...?	4.20	4.83 ^{***}
	Can you ...?	4.20	Imp, can you?	4.00	1.10
	Imp, can you?	4.00	You can ...	2.90	2.16 [*]
COULD	Could I ask you to ...?	6.42	Could you ...?	5.76	2.92 ^{***}
	Could you ...?	5.76	Imp, could you?	5.00	2.05 [*]
	Imp, could you?	5.00	You could ...	3.17	4.00 ^{***}
WILL	Will you ...?	5.15	Imp, will you?	4.31	3.60 ^{***}
	Imp, will you?	4.31	I will ask you to ...	2.80	4.17 ^{***}
	I will ask you to ...	2.80	You will ...	1.13	4.51 ^{***}
WOULD	Would you ...?	5.31	Imp, would you?	5.00	1.43
MAY	May I ask you to ...?	6.68	You may ...	3.33	5.20 ^{***}
MIGHT	Might I ask you to ...?	6.78	You might ...	3.36	5.10 ^{***}
MUST	I must ask you to ...	3.04	I must tell you to ...	1.67	2.80 ^{**}
	I must tell you to ...	1.67	You must ...	1.33	0.27

Table C.3

Sign tests (one-tailed) for comparisons relevant to hypotheses concerning the effect of semantic force on politeness: pilot data

MODAL	FIRST FORM	MEDIAN	SECOND FORM	MEDIAN	Z-VALUE AND SIGNIFICANCE
CAN	Can you ...?	4.20	Can't you ...?	1.91	5.03 ^{***}
	Imp, can you?	4.00	Imp, can't you?	1.26	5.10 ^{***}
COULD	Could you ...?	5.76	Couldn't you ...?	3.85	4.72 ^{***}
WILL	Will you ...?	5.15	Won't you ...?	4.43	2.40 [*]
	Imp, will you?	4.31	Imp, won't you?	3.61	1.92
MUST	I must ask you to ...	3.04	Must I ask you to ...?	1.68	3.73 ^{***}

Table C.4

Sign tests (two-tailed) for semantic force/polarity effects on politeness, in cases where no predictions made: pilot data

FORM PREDICTED TO BE MORE POLITE	MEDIAN	FORM PREDICTED TO BE LESS POLITE	MEDIAN	Z-VALUE AND SIGNIFICANCE
I ask you to ...	2.69	Bare imperative	1.33	3.85 ^{***}
Bare imperative	1.33	I tell you to ...	1.09	2.02 [*]

Table C.5

Sign tests (one-tailed) for comparisons relevant to the effect of

semantic force type on politeness in non-modalised directives:

pilot data

MODALS	FORM PREDICTED TO BE MORE POLITE	MEDIAN SCORE	FORM PREDICTED TO BE LESS POLITE	MEDIAN SCORE	Z-VALUE AND SIGNIFICANCE
CAN/ COULD	You could ...	3.17	You can ...	2.90	1.02
	Could you ...?	5.76	Can you ...?	4.20	4.12 ^{***}
	Couldn't you ...?	3.85	Can't you ...?	1.91	4.56 ^{***}
	Imp, could you?	5.00	Imp, can you?	4.00	3.49 ^{***}
	Could I ask you to ...?	6.42	Can I ask you to ...?	6.22	1.38
WILL/ WOULD	Would you ...?	5.31	Will you ...?	5.15	1.20
	Imp, would you?	5.00	Imp, will you?	4.31	3.06 ^{**}
MAY/ MIGHT	You might ...	3.36	You may ...	3.33	0.21
	Might I ask you to ...?	6.78	May I ask you to ...?	6.68	0.27

Table C.6

Sign tests (one-tailed) for comparisons relevant to the effect of the tentative/non-tentative distinction on politeness: pilot data

FORM PREDICTED TO BE MORE POLITE	MEDIAN SCORE	FORM PREDICTED TO BE LESS POLITE	MEDIAN SCORE	Z-VALUE AND SIGNIFICANCE
You could ...	3.17	You should ...	2.09	1.92
You could ...	3.17	You ought ...	2.56	0.94
You could ...	3.17	You can ...	2.90	1.02
You might ...	3.36	You should ...	2.09	2.77 ^{ab}
You might ...	3.36	You ought ...	2.56	1.04
You might ...	3.36	You can ...	2.90	1.31
You should ...	2.09	You will ...	1.13	6.17 ^{abc}
You should ...	2.09	You must ...	1.33	2.91 ^{ab}
You should ...	2.09	You may ...	3.33	3.06 ^{ab} reverse direction
You should ...	2.09	You shall ...	1.20	3.96 ^{ab}
You ought ...	2.56	You will ...	1.13	5.20 ^{abc}
You ought ...	2.56	You must ...	1.33	6.17 ^{abc}
You ought ...	2.56	You may ...	3.33	1.31
You ought ...	2.56	You shall ...	1.20	3.47 ^{abc}
You can ...	2.90	You will ...	1.13	6.69 ^{abc}
You can ...	2.90	You must ...	1.33	3.33 ^{abc}
You can ...	2.90	You may ...	3.33	1.43
You can ...	2.90	You shall ...	1.20	3.47 ^{abc}

Table C.7

Sign tests (omitted) for comparisons relevant to the effect of individual models on politeness in directive statements: pilot data

FIRST FORM	MEDIAN SCORE	SECOND FORM	MEDIAN SCORE	Z-VALUE AND SIGNIFICANCE
You might ...	3.36	You could ...	3.17	0.24
You can ...	2.90	You ought ...	2.56	0.20
You can ...	2.90	You should ...	2.09	1.84
You ought ...	2.56	You should ...	2.09	1.67
You may ...	3.33	You must ...	1.33	3.97 ^{***}
You may ...	3.33	You shall ...	1.20	4.51 ^{***}
You may ...	3.33	You will ...	1.13	5.00 ^{***}
You must ...	1.33	You shall ...	1.20	0.75
You must ...	1.33	You will ...	1.13	2.22 [*]
You shall ...	1.20	You will ...	1.13	0.80

Table C.8

Sign tests (two-tailed) for comparisons relevant to the effect of individual
modals on politeness in statements, for cases where no prediction made:
plot data

FIRST FORM	MEDIAN SCORE	SECOND FORM	MEDIAN SCORE	Z-VALUE AND SIGNIFICANCE
You can ...	2.90	Imperative	1.33	2.55 [*]
You could ...	3.17	Imperative	1.33	3.47 ^{***}
Imperative	1.33	You will ...	1.13	1.87
You may ...	3.33	Imperative	1.33	4.00 ^{***}
You might ...	3.36	Imperative	1.33	4.51 ^{***}
You must ...	1.33	Imperative	1.33	0.00
Imperative	1.33	You shall ...	1.20	0.49
You should ...	2.09	Imperative	1.33	3.06 ^{**}
You ought ...	2.56	Imperative	1.33	3.88 ^{***}

Table C.9

Sign tests (two-tailed) for comparisons of the relative politeness
of the bare imperative and modalised statements: pilot data

FORM PREDICTED TO BE MORE POLITE	MEDIAN SCORE	FORM PREDICTED TO BE LESS POLITE	MEDIAN SCORE	Z-VALUE AND SIGNIFICANCE
Would you ...?	5.31	Will you ...?	5.15	1.20
Would you ...?	5.31	Can you ...?	4.20	4.05***
Would you ...?	5.31	Won't you ...?	4.53	3.08**
Could you ...?	5.76	Will you ...?	5.95	1.92
Could you ...?	5.76	Can you ...?	4.20	4.12***
Could you ...?	5.76	Won't you ...?	4.43	3.60***
Will you ...?	5.15	Couldn't you ...?	3.05	3.08**
Will you ...?	5.15	Shouldn't you ...?	3.62	4.35***
Will you ...?	5.15	Suppose't you ...?	3.42	4.67***
Can you ...?	4.20	Couldn't you ...?	3.05	1.90
Can you ...?	4.20	Shouldn't you ...?	3.62	2.92**
Can you ...?	4.20	Suppose't you ...?	3.42	3.08**
Won't you ...?	4.43	Couldn't you ...?	3.05	1.37
Won't you ...?	4.43	Shouldn't you ...?	3.62	1.84
Won't you ...?	4.43	Suppose't you ...?	3.42	2.08*
Couldn't you ...?	3.05	Can't you ...?	1.91	4.56***
Shouldn't you ...?	3.62	Can't you ...?	1.91	4.62***
Suppose't you ...?	3.42	Can't you ...?	1.91	4.00***

Table C.10

Sign tests (one-tailed) for comparisons relevant to the effect of individual models on politeness in whimperative questions: pilot data

FIRST FORM	MEDIAN SCORE	SECOND FORM	MEDIAN SCORE	Z-VALUE AND SIGNIFICANCE
Could you ...?	5.76	Would you ...?	5.31	1.43
Will you ...?	5.15	Won't you ...?	4.31	2.40 [*]
Will you ...?	5.15	Can you ...?	4.20	2.92 ^{**}
Won't you ...?	4.31	Can you ...?	4.20	0.20
Couldn't you ...?	3.85	Shouldn't you ...?	3.62	1.12
Couldn't you ...?	3.85	Oughtn't you ...?	3.42	1.84
Shouldn't you ...?	3.62	Oughtn't you ...?	3.42	0.00

Table C.11

Sign tests (two-tailed) for comparisons relevant to the effect of individual modals on politeness in whimperative questions, for cases where no prediction made: pilot data

FORM PREDICTED TO BE MORE POLITE	MEDIAN SCORE	FORM PREDICTED TO BE LESS POLITE	MEDIAN SCORE	Z-VALUE AND SIGNIFICANCE
Imp, would you?	5.00	Imp, will you?	4.31	3.06 ^{**}
Imp, would you?	5.00	Imp, can you?	4.00	2.77 ^{**}
Imp, would you?	5.00	Imp, won't you?	3.61	3.33 ^{***}
Imp, could you?	5.00	Imp, will you?	4.31	2.77 ^{**}
Imp, could you?	5.00	Imp, can you?	4.00	3.49 ^{***}
Imp, could you?	5.00	Imp, won't you?	3.61	4.40 ^{***}
Imp, will you?	4.31	Imp, can't you?	1.26	5.29 ^{***}
Imp, can you?	4.00	Imp, can't you?	1.26	5.10 ^{***}
Imp, won't you?	3.61	Imp, can't you?	1.26	4.80 ^{***}

Table C.12

Sign tests (one-tailed) for comparisons relevant to the effect of individual modals on politeness in tagged directives: pilot data

FIRST FORM	MEDIAN SCORE	SECOND FORM	MEDIAN SCORE	Z-VALUE AND SIGNIFICANCE
Imp, would you?	5.00	Imp, could you?	5.00	0.20
Imp, will you?	4.31	Imp, can you?	4.00	0.64
Imp, will you?	4.31	Imp, won't you?	3.61	1.92
Imp, can you?	4.00	Imp, won't you?	3.61	2.12*

Table C.13

Sign tests (two-tailed) for comparisons relevant to the effect of individual modals on politeness in tagged directives, for cases where no prediction made: pilot data

TEST ITEM	NO. OF INFORMANTS DEVIATING BY					NUMBER WITHIN ±1
	0	±1	±2	±3	±4	
You could ...	4	1	1	1		5
You may ...	2	4			1	6
May I ask you to ...?	4	2	1			6
I will ask you to ...	5		1	1		5
Imp, can't you?	2	5				7
Could I ask you to ...?	2	4	1			6
Imp, will you?	3	3	1			6
I must ask you to ...	2	5				7
I tell you to ...	5	1	1			6
Could you ...?	3	4				7
I ask you to ...	5	1	1			6
Imp, would you?	5	2				7
You might ...	2	3	1		1	5
Couldn't you ...?	2	1	3	1		3
Imp, can you?	4	3				7
Imp, could you?	2	5				7
You should ...	3	3	1			6
You must ...	4	2	1			6
Will you ...?	1	6				7
You shall ...	5	1	1			6
Imp, won't you?	2	3	2			5
Oughtn't you ...?	4	3				7
Shouldn't you ...?	6	1				7
Can I ask you to ...?	3	4				7
I must tell you to ...	3	4				7
Can't you ...?	3	3	1			6
Won't you ...?	3	2	2			5
You will ...	5	2				7
You ought ...	1	5	1			6
You can ...	1	3	2		1	4
Must I ask you to ...	5		2			5
Can you ...?	5	2				7
Imperative	3	3	1			6
Would you ...?	1	5	1			6
Might I ask you to ...?	6		1			6

Table C.14

Deviations between test and re-test for each
directive (N = 7 informants): pilot data

DEPARTMENT	MALE	FEMALE	TOTAL
English	6	8	14
History	1	6	7
French (University)	2	6	8
French (Polytechnic)	1	13	14
Chemistry (University)	6	4	10
Chemistry (Polytechnic)	10	7	17
Geology	2	0	2
Physics	4	0	4
Biology (Polytechnic)	1	3	4
Geography	7	10	17
TOTAL	40	57	97

Table C.15

Final investigation: politeness rating test -
breakdown of informant sample by department and sex

GEOGRAPHICAL ORIGIN	NO. IN SAMPLE
Scotland	1
Wales	4
Northumberland/Durham	5
Cheshire/Lancashire	14
E. Midlands (Notts, Derby, Leics)	9
W. Midlands (Warks, Worcs, Staffs)	7
S. Midlands (Oxon, Berks, Beds, Northants)	5
S.E. (London, Surrey, Kent, Essex, Herts)	16
East (Lincs, Norfolk, Suffolk, Cambs, Hunts)	2
West (Glos, Wilts, Salop)	3
Yorkshire	11
Cumbria	1
Mixed	19
TOTAL	97

Table C.16

Final investigation: politeness rating test -
geographical origin of informant sample

DEPARTMENT	MALE	FEMALE	TOTAL
English	7	14	21
History	3	7	10
French	1	3	4
Chemistry	14	10	24
Geology	3	0	3
Physics	4	0	4
Biology (Polytechnic)	20	6	26
Geography	8	12	20
TOTAL	60	52	112

Table C.17

Final investigation: acceptability and classification test -
breakdown of informant sample by department and sex

GEOGRAPHICAL ORIGIN	NO. IN SAMPLE
Scotland	2
Wales	2
Northumberland/Durham	4
Cheshire/Lancashire	18
E. Midlands (Notts, Derby, Leics)	13
W. Midlands (Warks, Worcs, Staffs)	6
S. Midlands (Oxon, Berks, Beds, Northants)	7
S. E. (London, Surrey, Kent, Essex, Herts)	20
South (Sussex, Hants)	3
East (Lincs, Norfolk, Suffolk, Cambs, Hunts)	4
West (Glos, Wilts, Salop)	5
Yorkshire	10
Mixed	18
TOTAL	112

Table C.18

Final investigation: acceptability and classification test -
geographical origin of informant sample

MODAL	SEMANTIC FORCE / POLARITY									
	QUESTION - EXPLANATION (- STATEMENT)	POSITIVE QUESTION	NEGATIVE QUESTION	- INFO. POS. TAG	- INFO. NEG. TAG	STATEMENT PERFORMATIVE		QUESTION PERFORMATIVE		
						ASK	TELL	ASK	TELL	
Ø				095 S1	04 01	050 S1	089 S0	089 S0		
CAN	026 S54	07 S13	016 S31	019 S2	040 S10	011 S30	013 S35	013 S35	01 S13	04 S75
COULD	012 S75	04 S10	02 S36	015 S7	018 S4	04 S31	019 S30	019 S30	01 S18	02 S22
WILL	026 S0	03 S2	04 S23	013 S2	042 S8	034 S9	059 S6	059 S6	00 S56	02 S08
WOULD	015 S6	04 S2	00 S29	013 S4	04 S11	016 S29	014 S19	014 S19	00 S10	04 S12
MAY	030 S07	01 S20	00 S12	02 S4	012 S5	04 S53	014 S35	014 S35	01 S12	03 S25
MIGHT	07 S65	00 S22	01 S47	02 S5	02 S17	07 S54	010 S34	010 S34	00 S18	04 S21
MUST	027 S1	03 S16	01 S19	03 S53	02 S73	04 S54	006 S06	006 S06	031 S28	046 S16
SHALL	006 S1	00 S29	04 S24	04 S52	07 S1	032 S13	054 S9	054 S9	03 S41	04 S42
SHOULD	037 S55	00 S69	04 S75	00 S8	07 S24	014 S22	019 S29	019 S29	01 S41	04 S54
SHOULD	027 S61	00 S58	04 S89	00 S11	06 S01	04 S52	05 S43	05 S43	01 S54	04 S45

Table C.19

Percentages of informants classifying each test item as an order (O),
request (R), suggestion (S), or as unacceptable (U): final data

SEMANTIC FORCE / POLARITY									
MODAL	QUESTION - EXPLANATION (= STATEMENT)	POSITIVE QUESTION	NEGATIVE QUESTION	- INFO. POS. TAG	- INFO. NEG. TAG	STATEMENT PERFORMATIVE		QUESTION PERFORMATIVE	
						ASK	TELL	ASK	TELL
Ø					1.36 (93)		1.64 (79)	1.17 (89)	
CAN	1.82 (84)	4.94 (94)	2.32 (93)	3.67 (91)	2.64 (93)			5.96 (95)	
COULD	2.05 (87)	5.64 (94)	3.77 (96)	3.99 (94)				6.46 (97)	
WILL	1.04 (70)	4.73 (96)	3.65 (96)	4.30 (97)	2.83 (91)		2.74 (63)		
WOULD		5.62 (97)		4.70 (96)					
MAY	2.19 (88)							6.74 (97)	
NIGHT								6.62 (95)	
MUST	1.32 (87)						3.10 (96)	1.62 (85)	1.08 (90)
SHALL	1.09 (73)						2.66 (65)		
SHOULD	2.29 (93)		3.37 (94)						
ought	2.15 (93)		3.02 (92)						

Table C.20

Median politeness ratings for the 'acceptable' directives,
with number of cases for each; final data

MODAL	FORM PREDICTED TO BE MORE POLITE	MEDIAN SCORE	FORM PREDICTED TO BE LESS POLITE	MEDIAN SCORE	Z-VALUE AND SIGNIFICANCE
CAN	Can I ask you to ...?	5.96	Can you ...?	4.94	6.01 ^{***}
	Can you ...?	4.94	Imp, can you?	3.67	7.02 ^{***}
	Imp, can you?	3.67	You can ...	1.82	8.89 ^{***}
COULD	Could I ask you to ...?	6.46	Could you ...?	5.64	5.54 ^{***}
	Could you ...?	5.64	Imp, could you?	3.99	8.39 ^{***}
	Imp, could you?	3.99	You could ...	2.85	9.17 ^{***}
WILL	Will you ...?	4.73	Imp, will you?	4.20	4.27 ^{***}
	Imp, will you?	4.20	I will ask you to ...	2.74	4.40 ^{***}
	I will ask you to ...	2.74	You will ...	1.04	6.71 ^{***}
WOULD	Would you ...?	5.62	Imp, would you?	4.70	5.32 ^{***}
MAY	May I ask you to ...?	6.74	You may ...	2.19	9.22 ^{***}
MUST	I must ask you to ...	3.18	I must tell you to ...	1.62	7.40 ^{***}
	I must tell you to ...	1.62	You must ...	1.32	1.96 ^h
SHALL	I shall ask you to ...	2.66	You shall ...	1.09	6.40 ^{***}

Table C.21

Sign tests (one-tailed) for comparisons relevant to hypotheses concerning the effect of semantic force on politeness: final data

MODAL	FIRST FORM	MEDIAN VALUE	SECOND FORM	MEDIAN VALUE	Z-VALUE AND SIGNIFICANCE
CAN	Can you ...?	4.94	Can't you ...?	2.12	8.85 ^{***}
	Imp, can you?	3.67	Imp, can't you?	2.64	5.30 ^{***}
COULD	Could you ...?	5.67	Couldn't you ...?	3.77	7.81 ^{***}
WILL	Will you ...?	4.73	Won't you ...?	3.65	5.40 ^{***}
	Imp, will you?	4.20	Imp, won't you?	2.83	5.85 ^{***}
MUST	I must tell you to ...	1.62	Must I tell you to ...?	1.08	4.76 ^{***}

Table C.22

Sign tests (two-tailed) for semantic force/polarity effects on politeness, in cases where no predictions made: final data

FORM PREDICTED TO BE MORE POLITE	MEDIAN VALUE	FORM PREDICTED TO BE LESS POLITE	MEDIAN VALUE	Z-VALUE AND SIGNIFICANCE
I ask you to ...	1.64	Bare imperative	1.36	2.01*
Bare imperative	1.36	I tell you to ...	1.12	3.94***

Table C.23

Sign tests (one-tailed) for comparisons relevant to the effect of
semantic force type on politeness in non-modalised directives:
final data

MODALS	FORM PREDICTED TO BE MORE POLITE	MEDIAN VALUE	FORM PREDICTED TO BE LESS POLITE	MEDIAN VALUE	Z-VALUE AND SIGNIFICANCE
CAN/ COULD	You could ...	2.85	You can ...	1.82	4.67 ^{***}
	Could you ...?	5.64	Can you ...?	4.94	4.33 ^{***}
	Couldn't you ...?	3.77	Can't you ...?	2.12	7.49 ^{***}
	Imp, could you?	3.99	Imp, can you?	3.67	2.38 ^{**}
	Could I ask you to ...?	6.46	Can I ask you to ...?	5.96	4.67 ^{***}
WILL/ WOULD	Would you ...?	5.62	Will you ...?	4.73	5.38 ^{***}
	Imp, would you?	4.70	Imp, will you?	4.20	3.12 ^{***}
MAY/ MIGHT	Might I ask you to ...?	6.62	May I ask you to ...?	6.74	1.78

Table C.24

Sign tests (one-tailed) for comparisons relevant to the effect of the tentative/non-tentative distinction on politeness: final data

FORM PREDICTED TO BE MORE POLITE	MEDIAN VALUE	FORM PREDICTED TO BE LESS POLITE	MEDIAN VALUE	Z-VALUE AND SIGNIFICANCE
You could ...	2.05	You should ...	2.29	2.30 ^a
You could ...	2.05	You ought ...	2.15	2.59 ^{ab}
You could ...	2.05	You can ...	1.82	3.23 ^{***}
You should ...	2.29	You will ...	1.04	8.06 ^{***}
You should ...	2.29	You must ...	1.32	6.52 ^{***}
You should ...	2.29	You may ...	2.19	1.30
You should ...	2.29	You shall ...	1.09	7.55 ^{***}
You ought ...	2.15	You will ...	1.04	7.55 ^{***}
You ought ...	2.15	You must ...	1.32	4.55 ^{***}
You ought ...	2.15	You may ...	2.19	0.14
You ought ...	2.15	You shall ...	1.09	6.55 ^{***}
You can ...	1.82	You will ...	1.04	5.93 ^{***}
You can ...	1.82	You must ...	1.32	2.86 ^{ab}
You can ...	1.82	You may ...	2.19	2.00 ^a reverse direction
You can ...	1.82	You shall ...	1.09	4.88 ^{***}

Table C.25

Sign tests (one-tailed) for comparisons relevant to the effect of individual models on politeness in directive statements: final data

FIRST FORM	MEDIAN VALUE	SECOND FORM	MEDIAN VALUE	Z-VALUE AND SIGNIFICANCE
You ought ...	2.15	You can ...	1.82	1.44
You should ...	2.29	You can ...	1.82	2.76 ^{**}
You should ...	2.29	You ought ...	2.15	1.35
You may ...	2.19	You must ...	1.32	3.55 ^{***}
You may ...	2.19	You shall ...	1.09	6.36 ^{***}
You may ...	2.19	You will ...	1.04	6.67 ^{***}
You must ...	1.32	You shall ...	1.09	3.47 ^{***}
You must ...	1.32	You will ...	1.04	4.23 ^{***}
You shall ...	1.09	You will ...	1.04	1.21

Table C.26

Sign tests (two-tailed) for comparisons relevant to the effect of individual

modals on politeness in statements, for cases where no prediction made:

final data

FIRST FORM	MEDIAN SCORE	SECOND FORM	MEDIAN SCORE	Z-VALUE AND SIGNIFICANCE
You can ...	1.82	Imperative	1.36	2.63 ^{**}
You could ...	2.85	Imperative	1.36	5.03 ^{***}
Imperative	1.36	You will ...	1.04	4.53 ^{***}
You may ...	2.19	Imperative	1.36	3.88 ^{***}
Imperative	1.36	You must ...	1.32	0.00
Imperative	1.36	You shall ...	1.09	3.36 ^{***}
You should ...	2.29	Imperative	1.36	4.50 ^{***}
You ought ...	2.15	Imperative	1.36	4.07 ^{***}

Table C.27

Sign tests (two-tailed) for comparisons of the relative politeness
of the bare imperative and modalised statements: final data

FORM PREDICTED TO BE MORE POLITE	MEDIAN VALUE	FORM PREDICTED TO BE LESS POLITE	MEDIAN VALUE	Z-VALUE AND SIGNIFICANCE
Would you ...?	5.62	Will you ...?	4.73	5.38 ^{***}
Would you ...?	5.61	Can you ...?	4.94	4.31 ^{***}
Would you ...?	5.62	Won't you ...?	3.65	8.66 ^{***}
Could you ...?	5.64	Will you ...?	4.73	4.60 ^{***}
Could you ...?	5.64	Can you ...?	4.94	4.33 ^{***}
Could you ...?	5.64	Won't you ...?	3.65	8.72 ^{***}
Will you ...?	4.73	Couldn't you ...?	3.77	4.05 ^{***}
Will you ...?	4.73	Shouldn't you ...?	3.37	6.67 ^{***}
Will you ...?	4.73	Oughtn't you ...?	3.02	7.20 ^{***}
Can you ...?	4.94	Couldn't you ...?	3.77	6.75 ^{***}
Can you ...?	4.94	Shouldn't you ...?	3.37	8.09 ^{***}
Can you ...?	4.94	Oughtn't you ...?	3.02	7.60 ^{***}
Won't you ...?	3.65	Couldn't you ...?	3.77	1.94
Won't you ...?	3.65	Shouldn't you ...?	3.37	2.08 [*]
Won't you ...?	3.65	Oughtn't you ...?	3.02	2.41 ^{**}
Couldn't you ...?	3.77	Can't you ...?	2.12	7.49 ^{***}
Shouldn't you ...?	3.37	Can't you ...?	2.12	5.62 ^{***}
Oughtn't you ...?	3.02	Can't you ...?	2.12	3.97 ^{***}

Table C.28

Sign tests (one-tailed) for comparisons relevant to the effect of individual models on politeness in interrogative questions: final date

FIRST FORM	MEDIAN VALUE	SECOND FORM	MEDIAN VALUE	Z-VALUE AND SIGNIFICANCE
Could you ...?	5.64	Would you ...?	5.62	0.75
Will you ...?	4.73	Won't you ...?	3.65	5.40 ^{***}
Can you ...?	4.94	Will you ...?	4.73	1.22
Can you ...?	4.94	Won't you ...?	3.65	7.36 ^{***}
Couldn't you ...?	3.77	Shouldn't you ...?	3.37	2.60 ^{**}
Couldn't you ...?	3.77	Oughtn't you ...?	3.02	3.82 ^{***}
Shouldn't you ...?	3.37	Oughtn't you ...?	3.02	2.56 [*]

Table C.29

Sign tests (two-tailed) for comparisons relevant to the effect of individual modals on politeness in whimperative questions, for cases where no prediction made: final data

FORM PREDICTED TO BE MORE POLITE	MEDIAN VALUE	FORM PREDICTED TO BE LESS POLITE	MEDIAN VALUE	Z-VALUE AND SIGNIFICANCE
Imp, would you?	4.70	Imp, will you?	4.20	3.12 ^{***}
Imp, would you?	4.70	Imp, can you?	3.67	5.54 ^{***}
Imp, would you?	4.70	Imp, won't you?	2.83	7.38 ^{***}
Imp, could you?	3.99	Imp, will you?	4.20	1.26
Imp, could you?	3.99	Imp, can you?	3.67	2.38 ^{**}
Imp, could you?	3.99	Imp, won't you?	2.83	6.40 ^{***}
Imp, will you?	4.20	Imp, can't you?	2.64	7.90 ^{***}
Imp, can you?	3.67	Imp, can't you?	2.64	5.30 ^{***}
Imp, won't you?	2.83	Imp, can't you?	2.64	2.12 [*]

Table C.30

Sign tests (one-tailed) for comparisons relevant to the effect of individual modals on politeness in tagged directives: final data

FIRST FORM	MEDIAN VALUE	SECOND FORM	MEDIAN VALUE	Z-VALUE AND SIGNIFICANCE
Imp, would you?	4.70	Imp, could you?	3.99	3.12**
Imp, will you?	4.20	Imp, can you?	3.67	3.43***
Imp, will you?	4.20	Imp, won't you?	2.83	5.85***
Imp, can you?	3.67	Imp, won't you?	2.83	3.78***

Table C.31

Sign tests (two-tailed) for comparisons relevant to the effect of individual modals on politeness in tagged directives, for cases where no prediction made: final data

MODAL	SEMANTIC FORCE / POLARITY									
	NON-QUESTION NON-EXCLAMATION (= STATEMENT)	POSITIVE QUESTION	NEGATIVE QUESTION	NON-INFO. POS. TAG	NON-INFO. NEG. TAG	STATEMENT PERFORMATIVE		QUESTION PERFORMATIVE		
						ASK	TELL	ASK	TELL	
Ø				1.50 (38)		1.70 (31)	1.15 (31)			
CAN	1.33 (35)	4.79 (31)	2.23 (37)	3.30 (36)	2.69 (36)			5.93 (38)		
COULD	3.80 (35)	5.20 (30)	3.68 (38)	4.04 (38)				6.39 (38)		
WILL	1.14 (32)	4.58 (38)	3.47 (37)	4.36 (38)	3.05 (36)	2.95 (30)				
WOULD		5.25 (38)		4.80 (38)						
MAY	2.29 (37)							6.77 (38)		
MIGHT								6.66 (37)		
MUST	1.40 (36)					2.88 (37)	1.63 (33)		1.12 (36)	
SHALL	1.11 (28)					2.44 (29)				
SHOULD	2.30 (38)		2.79 (37)							
ought	2.09 (38)		2.92 (36)							

Table C.32

Median politeness scores for each item on re-testing,
with number of cases for each; final data

DIRECTIVE	Z-SCORE
Imp, could you?	0.94*
Imp, won't you?	2.01
Oughtn't you ...?	0.20
I ask you to ...	0.80
Can't you ...?	1.57
I shall ask you to ...	0.29
Would you ...?	0.87
Could you ...?	1.46
I must ask you to ...	1.02
I will ask you to ...	0.00
You can ...	0.22
Couldn't you ...?	0.98
Won't you ...?	0.00
I tell you to ...	0.00
You may ...	0.87
Might I ask you to ...?	0.29
Can you ...?	0.00
Shouldn't you ...?	1.02
I must tell you to ...	0.67
Must I tell you to ...?	0.32
You ought to ...	0.44
Imperative	0.52
Imp, can you?	0.00
Can I ask you to ...?	0.21
You shall ...	0.00
You should ...	0.24
Imp, will you?	1.32
Imp, can't you?	1.49
Could I ask you to ...?	0.55
You will ...	1.22
Will you ...?	0.21
Imp, would you?	0.42
May I ask you to ...?	0.67
You could ...	1.38
You must ...	1.34

Table C.33

Sign test (two-tailed) for comparison
between initial test and re-test
scores (N = 38): final data

APPENDIX D

**COMPUTER PROGRAM FOR CALCULATING
MEDIAN AND PERFORMING SIGN TESTS**

```
* THIS PROGRAM READS DATA INTO A 2-D ARRAY 'SCORES'. COLUMNS REPRESENT
* SUBJECTS' SCORES ON A PARTICULAR ITEM; ROWS REPRESENT ONE SUBJECT'S
* SCORES ON ALL ITEMS. MISSING SCORES ARE INDICATED BY 9; SCORES
* DISCARDED FOR ANY REASON ARE INDICATED BY 0. THE PROGRAM CALCULATES
* THE MEDIAN SCORE FOR EACH ITEM, AND FINALLY PERFORMS A SIGN TEST TO
* ASSESS THE SIGNIFICANCE OF THE DIFFERENCE BETWEEN MEDIANS FOR EACH
* POSSIBLE PAIR OF SCORES.
```

```
*
```

```
* INITIALISATION
```

```
*
```

```
      X = 33
      Y = 38
      DEFINE('SQRT(M)TEMP')
      SCORES = ARRAY('33,38')
      F = ARRAY('8')
      &TRIM = 1
      &STLIMIT = 500000
      I = 1
      J = 1
```

```
SETL
```

```
*
```

```
* READ A DATA RECORD
```

```
*
```

```
READ      LINE = INPUT                                :F(SETL)
```

```
*
```

```
* REMOVE STUDENT I.D. CODES AND OTHER CODED INFORMATION
```

```
*
```

```
      LINE LEN(5) LEN(Y) . NEWLINE
```

```
*
```

```
* READ DATA INTO ARRAY 'SCORES'
```

```
*
```

```

GETSC      NEWLINE LEN(1) , SC =                               :F(INC.I1)
           SCORES<I,J> = SC
           J = J + 1                                           :(GETSC)
INC.I1     I = I + 1                                           :(SETJ)
*
* TEST IN TURN VALUE OF EACH SCORE FOR GIVEN ITEM, AND STORE FREQUENCIES
* OF SCORES IN ARRAY 'F'
*
SETL       L = 1
SETK       K = 1
           S = 1
SETF       F<S> = 0
           S = LT(S,B) S + 1                                   :S(SETF)
SETM       M = 1
TEST       F<M> = EQ(SCORES<K,L>,M - 1) F<M> + 1             :S(NEXTK)
           M = LT(M,B) M + 1                                   :S(TEST)
NEXTK      K = LT(K,X) K + 1                                   :S(SETM)
*
* CALCULATE MEDIAN AND PRINT RESULT
*
CALC       F = 2
           TOTN = X - F<1>
           NSUM = 0
TEST.1     GE(NSUM + F<P>,TOTN / 2.0)                          :S(MCALC)
           NSUM = NSUM + F<P>
           F = F + 1                                           :(TEST.1)
MCALC     MEDIAN = (F - 1.5) + ((TOTN / 2.0 - NSUM) / F<P>)
           OUTPUT = 'FOR ITEM ' L ' MEDIAN VALUE IS ' MEDIAN ', WITH '
           TOTN ' CASES'
           L = L + 1
           GT(L,Y)                                             :F(SETK)
*
*
```

* SIGN TEST FOR EACH POSSIBLE PAIR OF ITEMS

*

OUTPUT =

OUTPUT =

OUTPUT =

OUTPUT =

HEADING = 'SIGN TEST FOR SIGNIFICANCE OF DIFFERENCE BETWEEN '

+ 'MEDIAN FOR EACH POSSIBLE PAIR OF ITEMS'

OUTPUT = HEADING

OUTPUT = DUPL('-', SIZE(HEADING))

J = 1

SETV

V = 1

SETI

I = 1

PLUS = 0

MINUS = 0

*

* TEST WHETHER EITHER SCORE IS 0 OR 9; IF SO, DISCARD

*

TESTED	EQ(SCORES<I, J>, 0)	:S(INC. I2)
	EQ(SCORES<I, J + V>, 0)	:S(INC. I2)
	EQ(SCORES<I, J>, 9)	:S(INC. I2)
	EQ(SCORES<I, J + V>, 9)	:S(INC. I2)

*

* TEST WHETHER SCORES ARE EQUAL; IF SO, DISCARD

*

	EQ(SCORES<I, J>, SCORES<I, J + V>)	:S(INC. I2)
--	------------------------------------	--------------

*

* INCREMENT VALUE OF PLUS IF DIFFERENCE POSITIVE, MINUS IF NEGATIVE

*

	PLUS = GT(SCORES<I, J>, SCORES<I, J + V>) PLUS + 1	:S(INC. I2)
--	--	--------------

	MINUS = MINUS + 1	
--	-------------------	--

INC. I2	I = LT(I, X) I + 1	:S(TESTED)
---------	--------------------	-------------

*

* FIND DIFFERENCE BETWEEN PLUS AND MINUS

*

DIFF = PLUS - MINUS
DIFF = LT(DIFF,0) 0 - DIFF

*

* CALCULATE Z VALUE

*

Z = (DIFF - 1.0) / SQRT(PLUS + MINUS)
Z = LT(Z,0) 0 - Z

*

* PRINT Z VALUE AND PROBABILITY VALUE

*

	GE(Z,3.30)	:F(COMP.1)
	P1 = '< 0.001'	
	P2 = '< 0.001'	:(PRINT)
COMP.1	GE(Z,3.10)	:F(COMP.2)
	P1 = '< 0.01'	
	P2 = '< 0.001'	:(PRINT)
COMP.2	GE(Z,2.58)	:F(COMP.3)
	P1 = '< 0.01'	
	P2 = '< 0.01'	:(PRINT)
COMP.3	GE(Z,2.33)	:F(COMP.4)
	P1 = '< 0.05'	
	P2 = '< 0.01'	:(PRINT)
COMP.4	GE(Z,1.96)	:F(COMP.5)
	P1 = '< 0.05'	
	P2 = '< 0.05'	:(PRINT)
COMP.5	GE(Z,1.64)	:F(NOTSIG)
	P1 = '> 0.05'	
	P2 = '< 0.05'	
NOTSIG	P1 = '> 0.05'	
	P2 = '> 0.05'	

```

PRINT      OUTPUT = 'FOR ITEMS ' J ' AND ' J + V ', Z = ' Z ', P ' P1
+          ' (NON-DIRECTIONAL) OR P ' P2 ' (DIRECTIONAL)'
          V = LT(J + V, Y) V + 1                                :S(SETI)
          J = LT(J, Y - 1) J + 1                                :S(SETV)F(END)
*
SQRT
*
* SQRT(M)TEMP CALCULATES THE SQUARE ROOT OF A NUMBER M
*
          TEMP = M
SQRT.0     TEMP = GT(TEMP, 0.000001) TEMP / 2.0                :F(RETURN)
SQRT.1     SQRT = GT(SQRT ** 2, M) SQRT - TEMP                 :S(SQRT, 1)
          TEMP = GT(TEMP, 0.000001) TEMP / 2.0                :F(RETURN)
SQRT.2     SQRT = LT(SQRT ** 2, M) SQRT + TEMP                 :S(SQRT, 2)F(SQRT, 0)
SQRT.END
*
END

```

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