Speech Act Theory, Discourse Structure and Indirect Speech Acts

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The Candidate confirms that the work submitted is his own work and that appropriate credit has been given where reference has been made to the work of others.

Abstract

Speech Act Theory is concerned with the ways in which language can be used. It originated with Austin, but was developed by Searle. The theories of Austin and Searle are described and several problem areas are identified. If it is to be a viable theory of language usage, speech act theory must be able to integrate with a theory of discourse structure, because if speech acts are identifiable as units of language, then it must be possible include them in a model of discourse.

The second chapter examines discourse structure, examining two rival theories: the discourse analysis approach and the conversational analysis approach. Discourse analysis is broadly sympathetic to speech act theory, whereas, conversational analysis is not. The claims of conversational analysis are examined and are found to be wanting in several respects. Speech Act Theory is then discussed with a particular emphasis on the problem of relating speech acts to each other within a larger unit of discourse. It is noted that Austin, by including the expositive class of speech acts, allows for the possibility of relations between speech acts, whereas Searle's description of speech acts effectively rules out any relations between speech acts.

The third chapter develops speech acts in terms of a schematic model consisting of cognitive states, a presumed effect of the speech act and an action. The cognitive states are represented using modal and deontic operators on the proposition within epistemic logic. This idea of the description of a speech act in terms of cognitive states is developed in Chapter Four.

In Chapter Four, speech acts are related using a communicated cognitive state to pair two speech acts together into a primary and secondary speech act. It is noted that the idea of a primary and secondary speech act is present within the discourse analysis model of discourse (in the form of the initiation-response cycle of exchanges) and also in the conversational analysis approach to discourse (in the form of the adjacency pair). The conclusion from this is that the two approaches are perhaps not so incompatible as might first appear.

Chapter Five deals with grammatical sentence types and their possible use in communicating cognitive states. It also examines modal auxiliary verbs and their possible relationship to the modal and deontic operators used in the cognitive state model.

In Chapter Six, theories of indirect speech acts are described. An explanation of indirect speech acts is developed using pragmatic maxims and cognitive states to explain why certain indirect forms are chosen. This leads to a theory of linguistic politeness and a use model of speech acts.

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Acknowledgements

I started work on my Ph.D. thesis in October 1985, little realising how long it would take or how much effort would have to be put into it. I started out with some vague notions of Natural Language Processing and only slowly moved into the area of speech act theory.

There were two major changes to my life that took place during my work on the thesis. The first of these was a move away from Leeds Polytechnic to City University. This proved immediately beneficial, as I was allowed much more time to develop my thoughts and there were no real problems with being located so far from Leeds University. Indeed the train journeys were often very valuable as they allowed me time to think about certain ideas. However, I will not be sorry if I don't have to wait at Doncaster station again.

The second change in my life was the birth of my son Christopher, this took place in December 1988, and although a joyous event, posed a major threat to the completion of the thesis. Christopher never slept through one single night during his first year of life and this frequently left me too exhausted to do anything on the thesis. I also found it almost impossible at first to work at home during the evenings and weekends and with a full time job, it was often difficult to get much done.

With respect to various parts of the thesis, I must of course thank David Holdcroft for guiding me through some of the more mysterious apsects of speech act theory. I would also like to thank Sachiko Ide for stimulating within me an interest in politeness.

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1. Speech Act Theory

1.1 Introduction

The main direction of this thesis will be to explore what exactly a speech act is or should be. Speech Act Theory originated as a theory within the Philosophy of Language to explain the ways that we can use language, but since then speech act theory has been used within a wider context in linguistics and more recently in computational models. This wider use has thrown up several problems that indicate that the traditional view of speech acts developed by Austin and Searle is no longer sufficient to provide an explanation of language use. In this thesis, I will set out to explore speech acts within a wider framework, paying particular attention to discourse structure and also to speech acts at a cognitive level. One issue that will be explored in some detail is the role of indirect speech acts in a comprehensive theory. By taking a cognitive approach to speech act theory, I am assuming a priori that such a level exists, rejecting the view held by Dreyfus that language understanding is achieved in a non-rule-like manner or that "we just do it" (Dreyfus 1979).

The remainder of Chapter One looks at traditional speech act theory and outlines some of the problems that have been thrown up by recent research particularly in Linguistics and Artificial Intelligence. Chapter Two is a description of research into Discourse Structure which includes how speech act theory might fit in. Chapter Three is an exploration of how speech acts may be represented as a "logical form" a kind of description of what the speech act is describing. Chapter Four describes how speech acts may be included in a model of discourse. Chapter Five extends this idea and looks at surface forms. Chapter Six attempts to provide an explanation of indirect speech acts using pragmatic maxims as Bach and Harnish claim (Bach and Harnish 1979). It also pays particular attention to the use of indirect speech acts in theories of linguistic politeness.

1.2 The Seminal Work of Austin

Speech Act Theory originated with J.L.Austin, summarised in his William James Lectures presented at Harvard University in 1955 (Austin 1962). Austin started by examining the view that a statement of fact ought to be verifiable in some way. He believed that many philosophical problems had arisen because of a desire to treat all utterances as verifiable statements. He gave the term "constative" to straightforward statements of fact. However he also described statements which

> ... do not 'describe' or 'report' or constate anything at all are not 'true' and 'false' and [for which] the uttering of a sentence is, or is a part of the doing of an action which would not normally be described as saying something.
> (Austin op.cit. p.3)

He was referring here to utterances such as **I name this ship...**, and he called this class of utterance performative. Additionally he stated that when performative utterances of this type go wrong they are not so much 'false' as 'unhappy'. This doctrine of the things that can be and do go wrong with performatives, he described as infelicities. Having made this apparently clear cut distinction between constative and performative utterances Austin then went on to compare the 'implications' of performative utterances with 'certain discoveries made about constative utterances'. He analysed performative and constative utterances with respect to entailment, implicature and presupposition. Although he saw some sort of entailment involving performative utterances, for example, **I promise** entails **I ought**, he was not entirely happy with the notion that performative and constative utterances both have entailments.

> But I do not want to say that there is any parallel here; only that at least there is a very close parallel in the other two cases...
> (Austin op. cit. p.54).

Austin's sense of unease here has often been overlooked by many who have attempted to extend his ideas.

Austin started by identifying a specific problem viz. that not all statements could be verified as true or false. He then analysed in some detail the nature of performative statements, but

then attempted to relate these ideas in a more general way to all types of statements and, at the end of his book, had left many loose strands and a lot of unanswered questions. He concluded that all utterances that he had examined had a happiness or unhappiness dimension, an illocutionary force, a truth/falsehood dimension and a locutionary meaning; and he argued that what was required was a study of the range of illocutionary forces of an utterance.

1.3 Searle's Theory of Speech Acts

A key response to these questions and problems was made by Searle, the pupil of Austin, who was primarily responsible for developing speech act theory into the form in which it is now known. His most important works in this area are Searle (1969,1979) and Searle and Van der Veken (1985). Searle's work differs from Austin's in several respects: firstly Austin distinguished between locutionary, illocutionary and perlocutionary acts, whereas Searle was somewhat sceptical about this distinction, preferring instead a rigorous approach to the description of illocutionary acts. This point is discussed in Holdcroft (1978). A second distinction concerns the different emphasis placed by Austin and Searle on the force and meaning of a speech act. The force of a speech act is a form of gradation of a particular type of speech act. Thus if we accept **directive** as a term to describe those speech acts that are attempts by the speaker to get the hearer to carry out an action, then a suggestion would carry a weak force whereas a command would carry a stronger force. Searle used the idea of illocutionary force as the central plank of his theory, particularly in his formal theory of illocutionary logic (Searle and Van der Veken 1985).

Austin, on the other hand was more concerned with individual speech acts and less with illocutionary force. Another notion that has been promoted by Searle's theory is the idea of direction of fit. Searle maintains that there are "four and only four" directions of fit in language. These are:

i) Word-to-World, where the utterance fits an independently existing state of affairs in the world. A statement of fact exhibits this direction of fit.

ii) World-to-Word, where the world is altered to fit the propositional content of the illocution. An example of

such an act would be a directive speech act, such as an order.

iii) The double direction of fit is when the world is altered to fit the propositional content of the utterance by being represented as so altered. For example: **I name this ship the SS Titanic"**.

iv) The null direction of fit. Where there is no question of achieving success of fit between word and world. According to Searle expressive acts (i.e. those where the speaker is expressing his feelings) provide examples of the null direction of fit.

If we accept the view that language lies purely in a two-dimensional plain between the world and words uttered, then there are, Searle argues, no other possibilities, however this denies the possibility of any referential relationships between speech items. When I summarise my criticisms of Searle this point will be explored further. What is most likely is that the notion of direction of fit is something totally alien to Austin's view of speech acts. Indeed as I shall point out later, it is likely that Austin would have taken issue with the "flattening" of language into a two-dimensional plain which is necessary for Searle's theory.

Searle attempted to describe the differences between the different types of illocutionary acts Searle (1979). He was able to distinguish twelve important differences:

1. Differences in the point of the type of act. The illocutionary point is one of the most important components of Searle's theory. The illocutionary point is the purpose of an act of a particular type, for example, the point of an assertive act is to tell people how things are. Searle considers the illocutionary point to be a component of the illocutionary force.

2. Differences in the direction of fit between words and the world. The direction of fit is central to Searle's theory, if it falls then his whole taxonomy falls apart. The four possibilities have been described above. However the whole notion of direction of fit rests on the a priori assumption of two-dimensional view of language as a relationship between words and the world. The whole idea of direction of fit falls apart if it can be shown that

locutions sometimes serve some purpose other than to relate to the world.

3. Differences in the expressed psychological state. An illocutionary act may express belief (as in an assertion), intention (as in a promise) or even desire or want. This is an interesting but minor point of the Searle theory. If we assume that there are a small number of possible psychological states that relate to illocutionary acts, then it ought to be possible to represent the acts in terms of these psychological states. This idea is pursued in Chapter Three, when I examine underlying representations of illocutionary acts.

4. Differences in the force or strength with which the illocutionary point is presented. It is clear that insisting is far stronger than suggesting. Hence we can assign a degree of strength to the illocutionary point. It appears to be intuitive that if we are going to categorise, say, all assertive acts together, that some of them have a stronger point than others, from the hesitant suggestion to the forceful assertion. However, one issue relating to the degree of force of the illocutionary point is the question of whether the degree enables us to put individual types of assertive onto some linear (or indeed non-linear) scale, or whether different types of utterance that purvey the same illocutionary act have a different degree of strength of the illocutionary point. Searle appears to ignore this distinction, but it is important if we are going to be able to describe exactly what a speech act is. It also raises the question of whether, for example, considerations of politeness should come into speech act theory.

5. Differences in the status or position of the speaker and hearer as they bear on the illocutionary force of the utterance. Although defining this difference, Searle makes very little use of it. It is fairly clear that the relative status of the speakers has a bearing on the types of utterance used in a conversation, but Searle's theory has almost nothing to say about this. There appears to be an effect upon the strength of the illocutionary point. For example a person of higher status may make a suggestion to someone of lower status which is effectively a directive. The issue of relative status of speaker and hearer is explored by Berry (1982).

However, status also bears a relationship to topic, under certain circumstances, an inferior may issue orders to a superior, for example: **Kindly remove your hand from my knee**. Perhaps this is of more relevance when considering discourse structure, because it is effectively contextual in nature. However, the ability of individuals to affect an utterance form according to their relative statuses casts some doubt on the validity of the claim by Searle of the one-to-one relationship between utterance form and illocutionary point.

6. Differences in the way the utterance relates to the interests of the speaker and the hearer. By this Searle is referring to the distinction between pairs of words such as **boast** and **lament**. To boast that **P** is to assert **P** while expressing pride that **P** is the case, on the other hand lamenting that **P** is to assert that **P** while expressing regret that **P** is the case. It is of course quite possible for two individuals to contradict each other, one boasting that **P** and the other lamenting that **P**. A lamentation that **P** may well take the form of: **I very much regret that...**, boasting on the other hand is more conventional. For example: **I hold the International Master's Title**, said by one chess player to another, may be seen as boasting, but in different societies even a relatively harmless statement such as: **Well, we try to keep our garden looking nice**, might be seen as offensive - in Japan for instance (see Leech 1983). Notions of pride and remorse are very difficult to quantify and it is questionable whether verbs such as **boast** and **lament** should be included in a taxonomy of speech acts.

7. Differences in relations to the rest of the discourse. Searle notes certain performative expressions such as: **I reply, I deduce**, which relate the utterance to the rest of the discourse. This point is important and was referred to by Austin. Austin regarded it as "a source of puzzlement" that certain speech acts appear to belong to more than one category, particularly when referring to the class of speech act he called expositive (for a further discussion of this see Smith and Holdcroft (1990)). However it forms no part of Searle's final theory (Searle and Van der Veken 1985). Furthermore, in a recent article on Conversation (Searle 1986), he plays down its importance. Searle has tended to hide behind the use of Ockham's Razor, named after William of Ockham, the medieval philosopher who first expressed the argument

"Do not multiply entities beyond what is strictly necessary to explain the phenomena". However in this case the argument is misguided as the strictly two-dimensional relationship between words and the world which is central to Searle's thesis falls down badly in certain areas, as I will attempt to show throughout this thesis. The idea that a speech act can "relate" to another part of the discourse does not fit in with the essentially sentence-based notions of speech acts formalised in Searle and Van der Veken (1985). If we allow the idea that a speech act may be dependent upon what has gone before it in the discourse, then the notion that the illocutionary force is the main component of meaning loses its validity.

8. Differences in propositional content that are determined by illocutionary force indicating devices. Searle recognised that certain surface form constructs affect the illocutionary force of the utterance. For example the use of adverbs may strengthen or weaken the force of the utterance. For example:

(1) You really must go.

(2) You must go.

The use of the adverb **really** adds force to the utterance. But since Searle's final theory is verb oriented, it is very difficult to see how exactly it is possible to reconcile speech act verbs to the subtle nuances of illocutionary force indicating devices.

9. Differences between those acts that must always be speech acts and those that can be, but need not be performed as speech acts. This, on the other hand does not seem so important for speech act theory as a linguistic theory. For example it would be difficult and highly impractical to assert non verbally that Einstein's theory of relativity is perhaps incorrect, on the other hand it is possible to signal disapproval merely by the raising of an eyebrow.

10. Differences between those acts that require an extra-linguistic institution for their performance and those that do not. This point is note-worthy if only to draw attention to the fact that the majority of speech acts that fall into this category do not comfortably fit into Searle's formal theory. The category of speech acts that require an extra-linguistic institution are called performatives by Austin and declaratives by Searle.

11. Differences between those acts where the corresponding

illocutionary verb has a performative use and those where it does not.

12. Differences in the style of performance of the illocutionary act. To illustrate this point Searle makes the distinction between the performance of an announcement and confiding. This again is essentially a non-linguistic point. Searle is drawing attention to the fact that the mode of delivery of the speech act to some extent determines the category into which it falls. Confiding generally implies notification to a select group of individuals of something that is not generally known, whereas the purpose of announcing is to make public some fact previously known only to the speaker or at most to a few individuals. The implication of confiding is that it is done in hushed tones, whereas announcing may be carried out to maximise the size of the audience.

Searle's taxonomy of speech acts consists of five broad categories (Searle 1979).

1. Assertives. The assertive class commits the speaker to something's being the case, to the truth of the expressed proposition. Examples include **assert**, **predict** and **insist**.

2. Directives. These are attempts by the speaker to get the hearer to do something. Examples include **direct**, **order** and **entreat**.

3. Commissives. These are acts that commit the speaker to some future course of action. Examples include **commit**, **promise** and **threaten**.

4. Expressives. These express the psychological state specified in the sincerity condition; acts of this kind express the speaker's own feelings. Examples include **apologize**, **thank** and **praise**.

5. Declaratives. These are acts which bring about a corresponding change in the world, e.g. **I declare X to be Y**, **X** shall henceforth be known as **Y**, assuming the speaker has the authority to make the declaration.

1.4 The Formal Theory of Speech Acts

The formal theory of speech acts is described in Searle and Van der Veken (1985). The notion of illocutionary force is central

to this theory.

> Part of the meaning of an elementary sentence is that its literal utterance in a given context constitutes the performance of an illocutionary act of a particular illocutionary force.
>
> (Searle and Van der Veken op.cit.p.7).

Furthermore they define seven constituent components of illocutionary force:

1. Illocutionary Point, the point or purpose of a particular type of act. Thus the purpose of an assertive is to make a statement about the world. It is the illocutionary point that essentially distinguishes each broad category of speech act defined above.
2. The degree of strength of the illocutionary point. As described above, the illocutionary point may be stronger for certain types of speech acts than for others. For example **I insist** is stronger than **I suggest**.
3. The Mode of achievement. The mode of achievement is that which distinguishes say a request from a command. A command is issued from a position of authority and it is this invocation of the position of authority, that is the mode of achievement of the command. Similarly, testifying differs from asserting in that testifying takes place under oath. In the case of testifying, being under oath is the mode of achievement. To summarise, the mode of achievement is an amorphous collection of extra-linguistic additions to a speech act that transform a basic form into a more complex speech act.
4. Propositional Content Conditions. The propositional content conditions are constraints put on the speech act type by the propositional content itself. For example, it makes no sense to predict something that has already come to pass, similarly it would be non-sensical to promise to carry out an action that was to have taken place anyway. Also it is not possible to apologize "for the law of modus ponens" (Searle and Van der Veken op. cit. p.16).

5. Preparatory Conditions. Preparatory conditions relate to certain presuppositions "peculiar to illocutionary force", for example promising presupposes that the speaker is able to fulfil that promise.
6. Sincerity Conditions. The sincerity conditions ensure that the speech act performed is in accordance with the speaker's beliefs, intentions and feelings e.g. that the speaker believes that the assertion he has just made is true, or that he intends to carry out his promise etc.
7. The degree of strength of the sincerity conditions. Certain acts have stronger sincerity conditions attached to them, for example begging or imploring has a stronger sincerity condition than requesting.

The next part of the formal theory maintains that there are five illocutionary points.

1. The assertive point. A statement has the assertive point if the speaker presents a proposition as representing the actual state of affairs of the world.
2. The commissive point. A statement has the commissive point if the speaker commits himself to carrying out the action specified by the propositional content at some future stage.
3. The directive point. A statement has a directive point if the speaker is attempting to get the hearer to carry out the action specified by the propositional content of the utterance.
4. The declarative point. A statement has the declarative point if the world is changed in a way specified by the propositional content of the utterance.
5. The expressive point. A statement has the expressive point if it expresses the psychological feelings and states of the speaker.

Given these five primitive illocutionary points, we can use them as a base for their corresponding group of speech acts to define primitive speech acts for each group, and to build more complex speech acts by adding extra components of illocutionary force to the base. This is the idea behind the formal theory. Thus we have a primitive illocutionary force for each category of speech act:

1. The primitive assertive illocutionary force has the assertive illocutionary point with no mode of achievement and no propositional content conditions.
2. The primitive directive illocutionary force has the directive illocutionary point with the propositional content that represents a future course of action of the hearer.
3. The primitive commissive illocutionary force has the commissive illocutionary point with the propositional content condition that the propositional content represents some future course of action of the speaker.
4. The primitive declarative illocutionary force has the declarative illocutionary point with the mode of achievement that the speaker invokes his power to perform the declaration, but with no propositional content conditions.
5. The primitive expressive illocutionary force has the expressive point with no other special conditions.

Having defined the primitive illocutionary acts, we can use these to build more complex acts by operations on the illocutionary forces. Searle and Van der Veken identify five such operations:

1. The addition of propositional content conditions. Some of the illocutionary forces have more propositional content conditions than others. The example given by Searle and Van der Veken here is that of **report** which has more propositional content conditions than **assert** because its propositional content conditions only relate to past or present. Thus **report** effectively entails **assert**.
2. The addition of preparatory conditions. Some illocutionary forces have more preparatory conditions than other forces with the same point. Thus **remind** has more preparatory conditions than **assert** because it is necessary for a reminder that the propositional content has been made known to the hearer before, thus **remind** entails **assert**.
3. The addition of sincerity conditions. It is possible to add sincerity conditions to illocutionary forces to

create new illocutionary forces. For example, to lament that **P** is to assert that **P** while expressing regret that **P**. Thus lamenting that **P** entails asserting that **P**.

4. The restriction of the mode of achievement of the illocutionary point. The mode of achievement of the illocutionary point restricts the set of conditions under which the illocutionary point can be achieved. Thus **insist** differs from **assert** in its mode of achievement namely persistence.
5. The operations of increasing or decreasing the degrees of strength of the illocutionary point and of the sincerity conditions. Some illocutionary forces differ from others in the degree of strength with which their illocutionary point is achieved and in the degree of strength with which their psychological state is expressed. Thus **assert** is a stronger form of **suggest**.

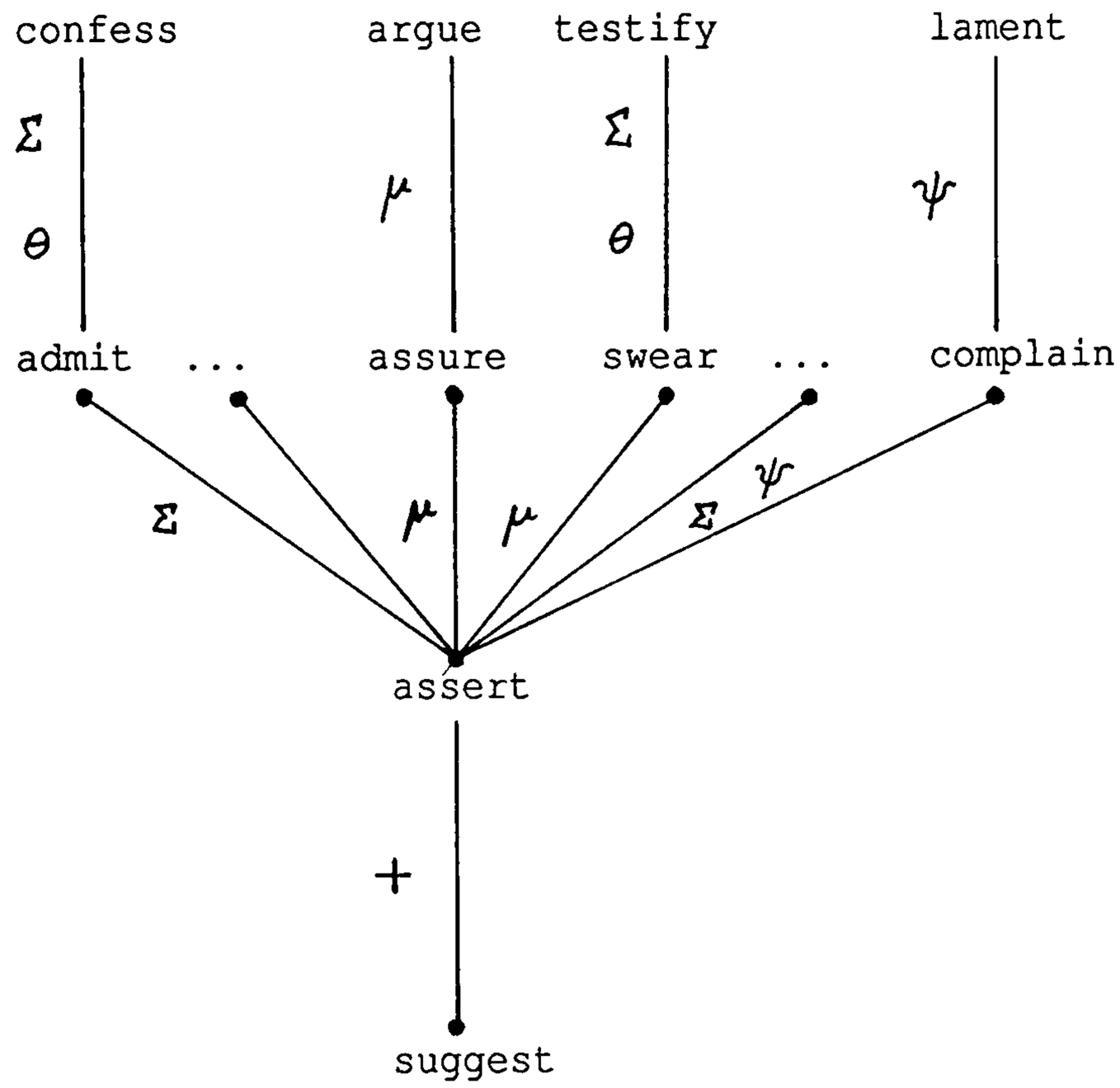
Having defined the primitive illocutionary acts for each category and the operations that may be performed upon those acts in order to produce more complex acts, Searle and Van der Veken then go on to produce semantic tableaux for assertives, commissives and directives (figures 1.1,1.2 and 1.3). These tableaux show the entailment relationships between the various speech act verbs analysed.

There appear to be several shortcomings of the formal theory which will be explored in greater detail in Chapter Three, but which will be introduced now. Firstly, it is significant that there are only three semantic tableaux (for assertives, directives and commissives). There are no tableaux for the other two categories and it is worthwhile exploring why this might be so. Searle and Van der Veken identify 21 declarative speech act verbs.

> Our list of declaratives contains: declare, resign, adjourn, appoint,nominate, approve, confirm, disapprove, endorse, renounce, disclaim, denounce, repudiate, bless, curse, excommunicate, consecrate, christen, abbreviate, name and call.
>
> (Searle and Van der Veken op. cit. p.205).

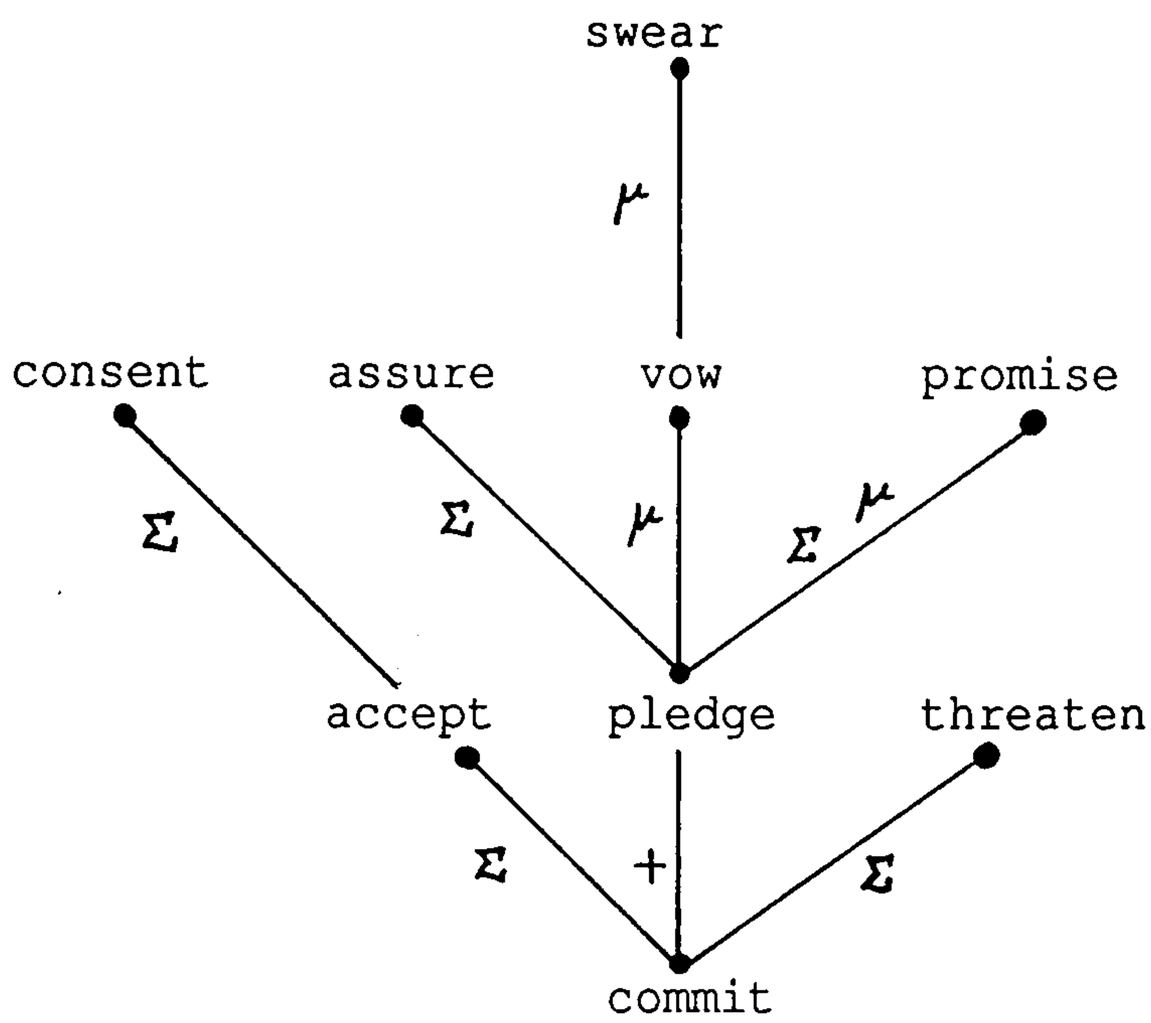
The problem with declaratives is that there is no significant

Figure 1.1
The Semantic Tableau For Assertives
(Searle and Van der Veken op. cit. p.219)



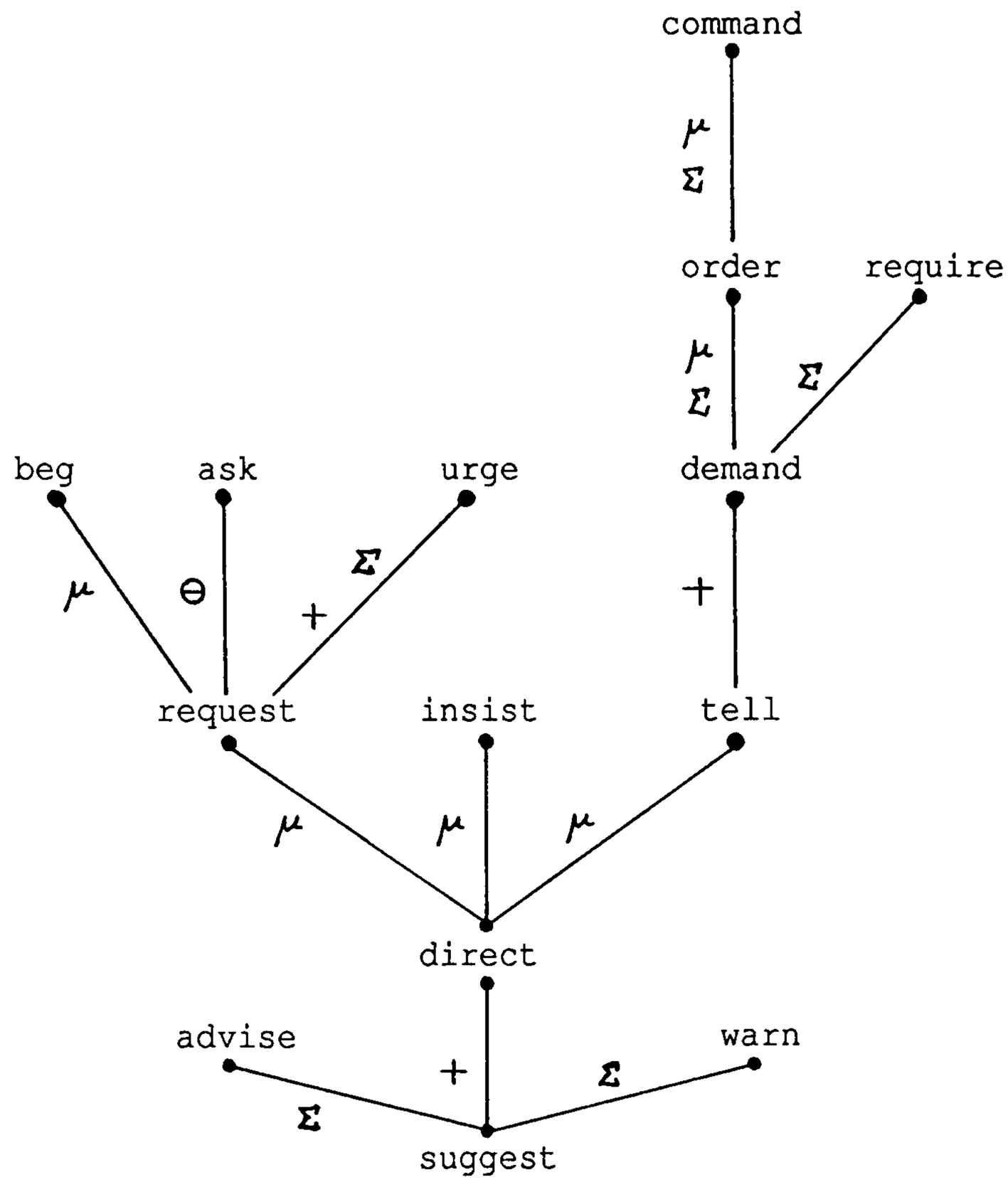
θ = Addition of Propositional Content
Σ = Addition of Preparatory Conditions
μ = Addition of Mode of Achievement
\+ = Increase in the Degree of Strength of the Illocutionary Point
ψ = Addition of Sincerity Conditions

Figure 1.2
The Semantic Tableau for Commissives
(Searle and Van der Veken op. cit. p.219)



+ = Increase in the degree of Strength of the Illocutionary Point
μ = Addition of Mode of Achievement
Σ = Addition of Preparatory Conditions

Figure 1.3
The Semantic Tableau for Directives
(Searle and Van der Veken op. cit. p.220)



Θ = Addition of Propositional Content Conditions
Σ = Addition of Preparatory Conditions
μ = Addition of Mode of Achievement
\+ = Increase of the Degree of Strength of the Illocutionary Point

entailment relationships between them. Most of the speech act verbs in this category are built on the entailment relationship of **declare** plus some added extra to the illocutionary force. Because of the very flat tableau that results, the entailment relationship almost loses its meaning, and indeed suggests that the speech acts in this category are of a different nature to those of other categories. All of them are per se declarations of one sort or another dependent on an extra-linguistic institution and bear very little relationship to each other except that many are carried out within the confines of institutionalised religion. There is a strong case for treating declaratives as a separate group from the other speech acts. They do not for example have any part to play in a theory of indirect speech acts (to be discussed below). For example, when something is consecrated, it is done so according to some agreed linguistic formula. It would not be acceptable given the ceremonial procedures of consecration to use a surface form other than the one specified, whereas it is possible to make say an assertion in a round-about manner. There is perhaps a case for renaming declaratives as Formal Speech Acts, or even preserving Austin's original name of "performatives".

Expressives are similarly devoid of any meaningful entailment relationships and many of the speech acts contained within Searle's category might be better called ritual exchanges (see for example Goffman 1972).

When examining the tableaux that actually exist there are further problems. The assertives tableau is somewhat flat because most of the speech act verbs in this category are built directly from **assert**. However some of these "entailment relationships" appear to be totally misconceived. For example, **assure** is one such speech act verb that entails **assert**, but from **assure** we have **argue**; it is questionable whether **argue** is a speech act verb at all. Although it is entirely possible to have a one sentence argument, it is more usual for an argument to be a structured exchange between the participants in the discourse. For example Schiffrin (1985) defines an argument as a structure consisting of a position, with paired exchanges of disputes of and support for the position. Consider the following recorded telephone message:

(3) A: I rang you earlier but you were out.

(4) B: Oh, I must have been at David's Mum's.

(5) A: Oh.

(6) B: Mind you, we've been in a good hour and a half to two.

(7) A: Oh, I went shopping then.

In (3), A makes an assertion (an argument?) which is initially accepted by B, but then after some thought (6), B disputes A's position and A instead of backing up her claim crumbles in (7). If we accept the view that an argument is a discourse structure, and also accept Schiffrin's view of that structure, then the brief dialogue above makes sense. However if we take Searle's model, then (3) is an argument and (6) is merely another assertion. There is no explanation in Searle's model as to why B should produce such an utterance at that point. Had B not disputed A's utterance, then (3) would have stood as an assertion or an implied question. There is nothing in the illocutionary force of the utterance to indicate that it should be an argument. It only becomes an argument after being disputed by B. Hence there appears to be something seriously wrong with the essentially verb oriented approach of Searle.

There are also further objections: consider the speech act verb **permit**. **Permit** is described by Searle and Van der Veken as follows:

> To grant permission to someone to do something is to perform the act of illocutionary denegation of forbidding him to do it.
> (Searle and Van der Veken op. cit. p.202).

Permit is placed within the directive class of speech act verbs and thus must be built upon the primitive speech act verb for this class, namely **direct**, yet a glance at the semantic tableau for directives reveals that **permit** is absent. It is a worthwhile exercise to attempt to locate **permit** in the tableau of directives. The primitive speech act for this group, **direct** is an attempt to get the hearer to do something while remaining neutral about the outcome. Directives have the propositional content constraint that the propositional content represents a future course of action by the hearer, and also have the preparatory conditions that the hearer must be capable of carrying out the action specified in the propositional content. Thus **direct** does not entail **permit**, a point which is made clearer by examining the weaker form of **direct**, **suggest**. If I **suggest** that **P**, I am merely stating an opinion as to

how the hearer may proceed, I am making no claims about whether **P** is permissible or not. Consider the following:

(8) Lecturer: You might like to use the photocopier to copy this article.

(8) is a suggestion as to how the student obtains a copy of an article. Unknown to the lecturer there is a notice that has been placed upon the photocopier by the head of department stating "No photocopies until further notice - over budget". Then the suggestion was not infelicitous it merely proved to be worthless. Thus permission to carry out **P** is not entailed by a suggestion to do **P**, and because **direct** is merely a stronger form of **suggest** (according to the model) then **permit** is not entailed by **direct** either.

There are three pathways up from **direct**, namely **request**, **insist** and **tell**, however **request** does not entail **permit**, consider for example the following:

(9) Lecturer: Could you photocopy this article?

(10) Student: I'm sorry, I have a lecture right now, but I could come back later.

In the example, the photocopier is not available for use because it is still over budget, the student knows this, but the lecturer obviously doesn't. In certain societies, the response is given so that the lecturer is seen not to lose face. Effectively the request is turned down but was not infelicitous.

Insist is merely a stronger form of **suggest** and therefore does not entail **permit**, so that leaves us with **tell**. According to Searle and Van der Veken (op.cit p.201), the difference between **tell** and **order**, which is further up the semantic tableau, is that an order is issued from a position of authority. Being in a position of authority entails being able to grant permission and therefore, order entails permit. If I were to issue an order without being able to grant permission then my order is infelicitous. This one example illustrates that the whole approach appealing to entailments between speech act verbs is highly suspect. Indeed, deontic operators such as **permit**, **forbid** and so on cause problems for the speech act categorisation process. Consider:

(11): You must remove your bag from the fire exit.

In (11), I am not making an order, I am merely pointing out an

obligation, if the bag is not removed, then it is not my fault, I have done my duty by telling you of your obligations. It is not an order, it is also not telling according to the Searle and Van der Veken definition of this speech act verb:

> To tell a hearer to do something is to direct him in a manner which does not give him the option of refusal.
>
> (Searle and Van der Veken op. cit. p. 200).

In (11), I am giving the hearer the option of refusal, after all it is not my fault if he chooses to ignore me. There appear to be two different forms of speech act that have been compressed into one. Firstly, I might tell someone to do something when I want them to do it and effectively don't give them the option of refusal; and, secondly, when I point out an obligation where I feel that in the public interest, say I should make this obligation known, and yet I have no personal interest in the outcome of my speech act. The first is **tell** in the sense intended by Searle, but the second is a deontic operator which has been ignored by the model. In Chapter Three, I shall argue that an expression such as (11) is really an assertive. In pointing out the obligation the speaker is effectively saying: "By my belief you are obligated to remove your bag from the fire exit."

1.5 Indirect Speech Acts

Searle also includes an attempted explanation of indirect speech acts (Searle 1979). An indirect speech act is an utterance that contains the illocutionary force indicators for one kind of illocutionary act but which is uttered to perform another type of illocutionary act. The problem with indirect speech acts is that they don't fit comfortably into the Searle and Van der Veken model outlined above because the model provides no adequate theory as to why indirect speech acts are used and what their place should be in the theory. Indirect speech acts are important for the whole existence of speech act theory and we need an adequate theory of them if it is to be a viable theory of how language is used. Chapter Six will be devoted to the subject of indirect speech acts, but I shall examine some of the problems and arguments surrounding them in this introductory section.

Speech Act Theory has frequently been attacked because of its

alleged inability to account for indirect speech acts, see for example Levinson (1983) and I shall examine these arguments in Chapter Two.

In his section on indirect speech acts, Searle includes an analysis of the modal **can**. Of the utterance **Can you reach the salt?**; he interprets this as a sentence in which the speaker may utter and mean what he says and also mean another illocution with a different propositional content, so that he makes a request by asking a question. The idea that the utterance is **both** a question and a request seems somewhat dubious, but this issue and the whole problem of indirect speech acts will be discussed in more depth in Chapter Six, (see also Chapter Five for an analysis of modal auxiliary verbs). The section on indirect speech acts (Searle 1979, p. 46) includes an analysis of the following case (examined in more detail in Chapter Six):

(12) X: lets go to the movies tonight.

(13) Y: I have to study for an exam.

Searle breaks down the comprehension of Y's indirect speech act into ten steps: firstly X makes a proposal to Y which elicits the above response, and secondly we assume that Y is co-operating in the conversation. Searle's third step maintains that the response must be one of acceptance, rejection etc., and that this is in accordance with speech act theory. This claim is dubious as there is no mention of the permissible relationship of speech acts to one another within the framework of Searle's theory. I shall not discuss the remaining steps in Searle's analysis as his interpretation of an indirect speech act rests on the third step.

The theory of indirect speech acts is essentially a "bolt on" theory and needs much work done on it to build it into a respectable theory of language usage. Searle's theory of indirect speech acts rests on the so-called conventionality thesis. The conventionality thesis is based on the assumption that certain illocutionary acts count as the performance of other acts by convention. This attempts to explain why certain illocutionary acts that are presented indirectly are immediately perceived as such, and can be transliterated into the underlying illocution without any difficulty. There are several weak points with the conventionality thesis which are discussed in detail by Bach and Harnish (1979). They point out that it is not exactly clear what

is meant by conventions. If conventions mean customs of usage, then they suggest rules such as:

> It is customary to request by using certain declarative and interrogative forms.
>
> ...
>
> Postsentential and preverbial "please" indicates that the speaker is intending to request.
>
> (Bach and Harnish op. cit. p.189).

However, they point out that such conventions do not give an account of certain irregularities regarding the postsentential use of "please". For example:

(14): I want you to stop making that noise, please?

(15)*: Are you able to do A, please?

(14) is acceptable, but (15) is not. The main objection to the conventionality thesis is that there is no stated connection between usage and the psychological states of the speakers that might allow us to provide an explanation for the distribution of postsentential "please".

Before summarising Searle's contribution to speech act theory and its shortcomings it would be useful to look at two alternate approaches to indirect speech acts.

Sadock (1974) puts forward the ambiguity thesis to explain indirect speech acts. The ambiguity thesis is the view that utterances may have additional meanings and thus the standardized use of such utterances is not indirect at all, but literal and direct. In this way the standardized use of the utterance (assuming that it is seen to be indirect) does not have to be computed from the direct form. Sadock sets out to demonstrate that the ambiguity thesis is incorporated within a theory about a range of linguistic phenomena. His arguments concern the fact that an inferential theory, like Searle's would be more complex, and he also presents certain tests, that distinguish those cases that can be treated as ambiguous, which are discussed in section 1.7 (Sadock op. cit. pp. 82-83,88-91) and also Bach and Harnish (op.cit. pp. 176-183).

A third theory is presented by Bach and Harnish (op. cit. p. 192). They call it the standardization thesis:

> the mutual beliefs that constitute illocutionary conventions enable the hearer to infer the speaker's indirect intent immediately, without going through the usual working-out process.
> (Bach and Harnish op. cit. p.192).

Because of the importance of the standardization thesis in relation to the work presented later on in this thesis, and also because of the difficulty in explaining it in isolation, I will describe it in section 1.8 when I examine Bach and Harnish's inferential theory of speech acts.

It is largely because of its inadequate treatment of indirect speech acts that speech act theory has been under attack from rival approaches, in particular by socio-linguists. Their rival theory will be discussed in Chapter Two. Many criticisms of indirect speech acts stem from the fact that an indirect speech act may be interpreted indirectly or simply in its direct form. In Schegloff (1988) however, he makes the point that a misunderstanding arises where an interpretation of an utterance is neither the direct nor the indirect form of the speech act.

He describes a discourse phenomenon called fourth position repair which can be outlined as below:

(16) A: Statement.

(17) B: Response to statement.

(18) A: Query of response.

(19) B: Repair (Oh, I thought you meant X).

Suppose that the initial statement (16) is an indirect speech act, say the direct interpretation is a question and the indirect interpretation is to take it as a request. Then, if a misunderstanding arises, by speech act theory, in his response, B might make the mistake of interpreting the indirect speech act directly and thus answering the question instead of treating it as a request. However Schegloff quotes an example where the first statement (a request) is treated, not as a question but as what is known as a pre-announcement (a pre-sequence, these will be discussed in Chapter Two):

(20) Mother: Do you know who is going to that meeting?

(21) Russ: Who?

(22) Mother: I don't know.

(23) Russ: Oh, probably Mrs. McOwen.

Schegloff states that according to speech act theory (20) is

either a request or a question, but in the actual dialogue it is misinterpreted as a pre-announcement, and because the misinterpretation does not match with the two predicted forms from speech act theory then speech act theory is incorrect. On the contrary Schegloff's observations appear to support the standardization thesis because what is going wrong is that Russ assumes that there is a mutual belief that both his mother and himself know that Mrs. McOwen is going to the meeting,so that he was expecting his mother to provide him with some new information. Moreover, the notion of a pre-announcement as some sort of discourse category in its own right seems questionable. Consider the following:

(20) A: Do you know who's going to that meeting?

(21) B: Who?

(21a) B: No, who?

(21b)* B: Yes, who?

If (20) was a question then it would be perfectly natural to say (21a), on the other hand if it was a pre-announcement then (21b) should be acceptable because B is not being presented with any new information. If we can make some form of appeal to the psychological states of speaker and hearer, along with some notion of what they both know and believe when making certain speech acts, then this criticism loses much of its force. The approach taken by the socio-linguists, known as conversational analysis is considered in greater detail in Chapter Two. The problem of indirect speech acts is taken up in Chapter Six.

1.6 A Critique of Searle's Theory of Speech Acts

To summarise there are several weak points and problems with Searle's theory:

1. The sentential basis of Searle's theory seems to be incorrect; in particular, it does not explain adequately Austin's "source of puzzlement" relating to expositives. Also it does not allow for the possibility of a structural relationship between speech acts and units of discourse structure.
2. The second problem, which is related to the first, is that Searle has imposed a uniform structure on his analysis of speech acts that is somewhat artificial, for

example, in the formal analysis of speech acts (Searle and Van der Veken op.cit) an argument is presented as an assertive, and yet it would appear that an argument is more a unit of discourse whereas an assertion could be considered to be a sentence based speech act. For a further discussion of this see (Holdcroft and Smith 1990).

3. The reliance on entailment in the formal theory does not hold for all speech acts, for example the directive **permit** does not appear in the semantic tableau of directives and indeed it cannot be made to fit into the semantic tableau. Additionally, it is not possible to describe interesting entailments between declaratives, hence it can hardly be described as a comprehensive and complete theory. Austin's misgivings about the appeal to entailment in this context are perhaps well founded.
4. The theory of indirect speech acts does not sit well with the formal theory of speech acts, and needs much more work done on it.
5. Searle mentions politeness as a reason for the use of indirect speech acts, this is an aspect of speech act theory that remains almost unexplored.
6. There is a problem of "levels of abstraction" with Searle's theory. This is perhaps a cognitive or even computational problem rather than a philosophical one, but if the philosophical theory is not plausible cognitively then it is also a philosophical problem. The "levels of abstraction" problem is that if we accept Searle's theory, then there must be a level at which an utterance is decoded into a speech act. For example, in interpreting an indirect speech act, the encoded marker of politeness in the utterance must be stripped away to reveal the underlying speech act. Similarly when generating an utterance, we must start with an abstract speech act description, and add the appropriate marker of the level of politeness to arrive at the final utterance used to perform the act. (Currently, speech act theory says very little or nothing about why a particular utterance is chosen).

7. The final problem, in part related to the previous one, is: how do considerations to do with politeness among other things relate to speech act theory, or should they be a part of speech act theory at all? The problems listed above will be examined in greater detail throughout the thesis.

1.7 Sadock's Linguistic Approach to Speech Acts

A somewhat different approach to speech act theory has been put forward by Sadock (1974) based on linguistic structure. Sadock attempts a linguistic based approach to speech act theory built on the ambiguity thesis. The ambiguity thesis is the view that sentences that are standardly used indirectly have additional meanings. Thus, the standardized use of a sentence is not indirect at all, but literal and direct. Sadock attempts to support this thesis by systematically analysing a range of linguistic phenomena. He examines six distinct grammatical forms which he claims exhibit "force-ambiguity", required to support the ambiguity thesis: 1. Whimperatives - a whimperative sentence has the form

modal {subjunctive} you VP?
{ negative }

For example:

(24) Can you leave now?

(25) Can't you take him with you?

Sadock argues that the semantic structure underlying the whimperative form is also thought to underlie imperatives. To support this view it is necessary to look for evidence that these sentence forms behave as imperatives in their indirect usage, and also that they do not act as interrogatives (again in their indirect usage). Sadock puts forward three types of evidence to support the ambiguity thesis here. Firstly, he examines the distribution of words such as "please" in imperatives and whimperatives.

(26) Please shut the door.

(27) Would you please shut the door.

There appears to be a correspondence in the use of please with action verbs in imperatives and whimperatives. This correspondence

also occurs when "please" is added post-sententially.

(28) Shut the door, please.

(29) Would you shut the door, please.

Second, Sadock considers "fractured" forms of whimperatives:

(please) VP modal {subjunctive} you (please)
{negative }

and attempts to show that they are requests but not questions. He states that they do not behave like questions in at least four respects (Sadock op. cit. 112).

(30a) When will you wash the car, or don't you know?

(30b)* Wash the car, will you, or don't you know?

(31a) When will you wash the car, by any chance?

(31b)* Wash the car, by any chance, will you?

(32a) Tell me, when will you wash the car?

(32b)* Tell me, wash the car will you?

(33) When will you wash the car, and when will you do the dishes?

The evidence presented here is that certain types of expression which may be conjoined to interrogatives cannot be so conjoined with fractured whimperatives. Bach and Harnish (1979) however see an objection here. Certain non-questions may be conjoined to questions if the non-question in some way relates to the question (Bach and Harnish op. cit. 180).

(34) When will you wash the car and {be careful how you answer.}
{I want to know quickly.}

Thirdly, certain expressions co-occur with imperatives but not interrogatives:

(35a) Wash the car, someone.

(35b)* When will you wash the car, someone?

Against the whimperative argument, there is evidence to suggest that whimperatives can function like interrogatives. (Green 1975) points out that responses to whimperatives match responses to interrogatives and not imperatives. This is because whimperatives require a verbal response whether or not they are complied with whereas imperatives only require a verbal response if they are not complied with. The evidence regarding the fractured whimperative also seems somewhat dubious and may be explained away with an

adequate explanation of the use of connectives. For example:

(36) When will you wash the car and mow the lawn?

(37) When will you wash the car and I'll do the dishes?

In (36), the **when** effectively carries forward across the connective whereas in (37) it doesn't. The evidence presented here by Sadock may have more to do with rules for use of connectives rather than some hidden linguistic structure.

2. Impositives - Impositives take the form of: **Why don't we VP?** or: **How about VP-ing?** Sadock's theory here is that impositives are suggestions and not whimperatives or questions. His evidence to support this view is based on the fact that impositives may be answered positively by "OK" but must be refused with a reason for refusing (in order to avoid any animosity). Unfortunately this distinction is not very clear cut.

The other categories are queclaratives such as: **Does anyone VP anymore**, pseudo-imperatives, such as: **Move and I'll shoot.** Requestions form another category, such as: **Columbus discovered America in?** and Tag-questions: **John likes spinach doesn't he?**.

Although there appear to be problems with this approach, Sadock has presented some data that needs to be explained.

1.8 The Inferential Approach To Speech Act Theory

The inferential approach to speech act theory has been put forward by Bach and Harnish (1979) and this is worth examining in more detail. Bach and Harnish set out a speech act schema which attempts to explain the inferences involved in deciphering four basic types of speech act:

i) literal and direct speech acts

ii) literal and indirect speech acts

iii) non-literal and direct speech acts

iv) non-literal and indirect speech acts

The inferences involve three factors: content, context and communicative intentions.

The speech act schema is based upon three presumptions:

1) The Linguistic Presumption (**LP**). This is the mutual belief that speaker and hearer share a common language, and that when Speaker (**S**) utters an expression (**e**) Hearer(**H**) can

identify what **S** is saying, given that **H** knows the meaning of **e** in the common language (**L**) and that **H** knows any appropriate background information. Without this mutual belief that they share the language they are using, people would not and probably could not communicate in the language.

2) The Communicative Presumption (**CP**). This is the assumption that whenever speaker **S** utters some **e** in **L** he is doing so with some recognizable intention. People do not have beliefs about illocutionary acts, but they do believe that speakers speak with overt intentions and it is this fact that helps them to identify the illocutionary act from some utterance.

3) The Presumption of Literalness (**PL**). This is the mutual belief that if in uttering **e S** could be speaking literally then **S** is speaking literally.

Using these assumptions, Bach and Harnish developed a speech act schema (Bach and Harnish op. cit. p.21) which attempts to describe how the hearer may infer an illocutionary act from an utterance.

The hearer **H**, first of all, realises that **S** has made some utterance **e**. By the linguistic presumption, **H** may infer that **S** meant something by **e** and that this is something that **e** means in **L**, their shared language. However, because of the large amount of ambiguity in language, **H** needs more than just the linguistic presumption to determine what **S** meant by **e**. In other words, given that **e** is ambiguous and that **S** meant only one of those meanings to be operative, then **H** has to determine which of those meanings was intended by **S**. Bach and Harnish suggest that the hearer is able to determine which of the interpretations is meant by using certain mutual contextual beliefs (**MCBs**). Hence the first steps of **H**'s inference take the form of:

S is uttering e.

a) **e means ... and ___ in L.**

b) **S means ... by e, or S means ___ by e.**

c) **The supposition that S means ___ by e is contextually less appropriate.**

S means ... by e.

From the fact that **H** infers that **S** means ... by **e**, **H** can determine that **S** is saying that **U(P)**, where **U** is some utterance and **P** is its propositional content.

Given that **H** has inferred that **S** is saying that **U(P)**, **H** now has to determine whether **S** is speaking literally and directly, i.e. **S** means **P** with some illocutionary force **F**. To summarise:

S1: S is uttering e.

S2: S means ... by e.

S3: S is saying that U(P)

S4: S, if speaking literally, is F-ing that P.

S5: S could be F-ing that P.

S6: S is F-ing that P.

Bach and Harnish then extend the schema to include non-literal direct acts, literal indirect acts and non-literal indirect acts. The steps for indirect literal acts are: firstly, there is a realisation by **H** that **S** could not be merely **F-ing** that **P**. There is some **F^{ind}** that **P** connected in a way identifiable under the circumstances to **F-ing** that **P**, such that in **F-ing** that **P**, **S** could also be **F^{ind}-ing** that **P**. This gives some idea of the schema proposed by Bach and Harnish for identifying both direct and indirect speech acts. This is described in more detail in Chapter Three.

The speech act schema outlined above is dependent upon the psychological plausibility of first examining an utterance to see if it is direct and if it is not, only then going on to interpret it as an indirect utterance. Bach and Harnish also propose an alternate speech act taxonomy in which they distinguish communicative and conventional speech acts. Conventional speech acts are broadly speaking the same class of acts as Searle's declaratives. Communicative speech acts are subdivided into four categories: constatives, directives, commissives and acknowledgements.

The main thrust of their argument rests however, on the speech act schema,even though the fine details of how for example **H** interprets an utterance as indirect have only been sketchily worked out. They suggest that even if the speech act schema is not a exact model of how speech acts are interpreted then it may at least be a "rational reconstruction" of inferences that the hearer makes. However they admit that the speech act schema is only the bare bones of the strategy:

> That we cannot readily identify all their ingredients attests to their complexity and subtlety, not to their non-existence or blatant simplicity.
> (Bach and Harnish 1979,p.93)

Furthermore they state:

> We suggest that every interpersonal situation ... involve(s) mutually recognised rules that apply to persons and types of situations.

Bach and Harnish also make some attempt to rationalise indirect speech acts in a way that is absent in Searle's work. They are particularly concerned with acts that do not seem to fit into the speech act schema. These involve the use of standard forms such as **Can you pass the salt?** For this type of speech act, they suggest that the usual schema of inference is short-circuited, i.e. the hearer can jump directly down to that part of the schema that deals with indirect speech acts. This, they admit poses a problem for their schema, because, if the schema is short-circuited, then, instead of having to rule out the literal intent as primary and infer **S**'s indirect intent, **H** can identify the indirect intent without having to search for it. This, in turn leads to implication that standard indirect forms such as: **Can you pass the salt,** must be regarded as systematically ambiguous (see the ambiguity thesis in 1.7). Bach and Harnish attempt to solve this problem by the standardization thesis.

They look first of all, to the conventionality thesis, which they claim points to how the speech act schema may be short-circuited without multiplying meaning. They state that the mutual beliefs that constitute illocutionary conventions enable the hearer to infer the speaker's indirect intent immediately, without having to go through the usual steps. They then point out that it is possible to formulate a notion of illocutionary standardization that does not require illocutionary conventions. It is only through constant use that such illocutions become standardized.

They state that standardization is achieved by a mutual belief that in some context, it would violate the conversational principle to make the utterance with its literally determined force. In other words, there is a mutual belief between **S** and **H** that in this particular context, **S**'s illocutionary intent in uttering **U** is indirect.

Another aspect of speech act theory addressed by Bach and

Harnish raises the question of how speech act descriptions are generated; and they propose a speech production model (Bach and Harnish p.238, op.cit.) which consists of nine basic steps:

1. Speaker **S** has a variety of beliefs and desires concerning the nature and direction of the discourse, **H**'s beliefs etc.
2. **S** forms a series of pragmatic intents.
3. **S** attempts to predict the consequences of fulfilling these various intents.
4. The utility of each intent is assessed.
5. A particular pragmatic intent **PI** is formed.
6. A variety of linguistic expressions of **PI** are formed.
7. **S** attempts to predict the likelihood of fulfilling **S**'s pragmatic intent with each expression.
8. The most likely expression **ei** is selected.
9. Expression **ei** is uttered.

The Bach and Harnish approach to speech act theory has an appeal from the cognitive point of view because of its attempt to describe the methods of inference used in generating and interpreting direct and indirect speech acts, however as the authors freely admit there is much still to be done to add flesh to the bare outline presented.

1.9 Some Criticisms of Speech Act Theory

Speech Act Theory is not without its critics however and many of the criticisms levelled at speech act theory have arisen because of the problems caused by integrating indirect speech acts into the theory. However speech act theory has also been attacked from two different angles: firstly because it is based on the assumption that there are certain features of utterances which are identifiable in a systematic way that make it possible to map utterances onto speech act types. For example the indicative mood indicates an assertive speech act, whereas the imperative mood points to a directive. Obviously, indirect speech acts pose problems for this assumption, particularly when the surface form points to an assertive and the indirect interpretation indicates a directive (this would happen in the case of a hint: **I'm very short of money this month**).

If it proves impossible to relate linguistic form to function in a systematic way, then it becomes necessary to resort to pure pragmatics, i.e. lifting speech act theory entirely away from linguistic form and this does not seem to be very desirable. One way out of this problem might be to describe in a systematic way the reasons why indirection is used and what form it takes. After all, it ought to be possible to describe the different ways of being indirect, because if there are an infinite number of possible ways, then it becomes impossible to recognise when someone is speaking indirectly.

Levinson (1983) for example, suggests that perhaps we ought to reject the fundamental assumption that sentences have literal forces but should concentrate instead on the idea of mapping speech act forces onto sentences in context. This is another way of specifying the problem of "levels of abstraction" mentioned earlier. If there is no level at which the speech act can be specified then there is no point in trying to map out a detailed taxonomy of speech act types. This would lead us to either reject the notion of speech acts altogether or to modify our views of what a speech act actually is.

Levinson suggests that the notion of a literal force could be replaced with the idea that a speech act could be viewed as an operation on a context and that a context must be understood in terms of sets of propositions describing beliefs, knowledge and so on of speaker and hearer. Thus he states:

> i) An assertion that p is a function from a context where the speaker S is not committed to p ... into a context in which S is committed to the justified true belief that p.
>
> ii) A promise that p is a function from a context where S is not committed to bringing about the state of affairs described in p, into one in which S is so committed.
>
> iii) An order that p is a function from a context in which H is not required by S to bring about the state of affairs described by p, into one in which H is so required.
>
> (Levinson 1983,p277)

Levinson's proposals have been extended by Gazdar (1981).If

we reject the notion of force then there is a wide gap between surface forms and the underlying representations. Although Levinson has described a set of underlying representations (above) there is no rationale as to what goes in that set or how those representations are derived from the utterances that embody them.

The representation of an assertive as a function from context to context gives us no idea how we are going to recognise the assertive. This theory leaves a very large gap between the ways that we can use language and how we actually use language. There is however, a certain appeal to representing a speech act in terms of propositions describing beliefs, knowledge etc. If these sets of propositions can be used, perhaps in conjunction with pragmatic rules to map the speech act as an abstract concept onto an actual surface form with certain linguistic features that reflect those beliefs etc. constrained by the pragmatic rules, then we have the beginnings of a powerful theory that will be able to hold on to the idea that speech act theory should be concerned with the mapping of function onto form in a systematic way and incorporating indirect speech acts as part of that theory.

Certain surface features do seem to systematically signal certain illocutionary forces, for example: **please**, often indicates a request. Perhaps it is the case that certain linguistic structures are not so much an indication of a given illocutionary force as an indication of the underlying propositions and other components that make up the speech act. For example, perhaps **please** is used in many requests because it is an indicator of a level of politeness, which is obligatory when making a request, and thus must be marked linguistically in some way. On the other hand, when making a request in a very indirect way, such as a hint, the marker of politeness is omitted because its presence might force the hearer into interpreting the hint as a request, whereas by using a very indirect strategy, the aim is to introduce some level of ambiguity into the utterance, so that it could be accepted as an assertive instead, thus giving the hearer the option of implicitly declining the request (I explore this possibility in Chapter Six).

A second attack on speech act theory comes through the study of discourse structure. If we accept the notion that a speech act equates roughly to a sentence (and it is not clear that this is or

should be the case), then if we are to accept the idea that discourse has some form of structure, then we must be prepared to integrate speech act theory into a theory of discourse structure. There are those who advocate that discourse has no identifiable structure, in which case the problem does not arise, but equally, there are some theories of discourse that are incompatible with speech act theory. This issue will be explored further in Chapter Two.

Levinson also suggests that speech act theory may come to be superseded by a "more complex, multi-faceted pragmatic approach", and that is in a sense what I am setting out to do, by recognising the great complexity of the factors that determine a given speech act.

One of the problems of speech act theory is that although it originated as an attempt to answer the problem of why it is difficult to assign truth values to certain types of sentences, it has been adopted by a much wider set of disciplines including linguistics, cognitive science, artificial intelligence and the psychology of language. Each of these disciplines sets their own questions about speech act theory and the more these questions are asked, the less clear it becomes as to what exactly speech act theory is or should be. At the philosophical level there are still problems concerning taxonomies of speech acts, notions of whether there are speech acts which are inexpressible (Holdcroft 1978) and the problem of how indirect speech acts can be incorporated into a more general theory of speech acts. However cognitive science has thrown up several new problems that require to be answered. Firstly, there is the problem of how we derive the correct speech act from the utterance and secondly there is the question of how we formulate utterances appropriate for the act we wish to perform. Both of these questions presuppose the existence of speech act representations at some cognitive level. The traditional philosophical approach of Searle (for example) is too vague, it explains these problems in general terms of "background knowledge" and "some form of inference". It totally avoids the problem of whether there is some cognitive level at which speech acts are represented, and to argue that "we just do it" as some philosophers have is to avoid the issue completely in order to prop up some leaky philosophical theory that can't stand up to a

rigorous analysis. Linguistics has the problem of the relationship between the meaning of words and speech act theory and indeed Sadock (1974) has argued that speech act verbs are at the highest linguistic level in terms of grammatical structure. Added to all of this we have to examine empirical data to see whether our speech act models are psychologically plausible. This suggests that speech act theory may have to be very complex.

1.10 Computational Models of Speech Acts

Speech act theory has been used in Artificial Intelligence Natural Language Processing programs with varying degrees of success, but AI has managed to throw up new problems and provide new insights into speech act theory.

One influential program was that of Allen (1983), see also Allen (1987) for a more detailed description of the program. Allen collected a corpus of exchanges between members of the public and information clerks on Toronto station and one phenomenon that he was interested in was that often the clerk provided more information than was asked for.

(38) Patron: When does the Montreal train leave?

(39) Clerk: 3.15 gate 10.

(Allen 1983, p107).

To explain this Allen made three assumptions:

i) People are rational agents who are capable of forming and executing plans to achieve their goals.

ii) They are often capable of inferring the plans of other agents from observing the agent to perform some action.

iii) They are capable of detecting obstacles in another agent's plan.

On this basis, the clerk was able to reply with the additional information because he inferred the plan of the patron and perceived that it might be useful to add the gate number to his answer.

In order to be able to play the role of the clerk, a computer system must be able to represent plans and actions. The action type represented by Allen (1983, p.117) takes the form of schema which consists of a name, a set of parameters and (possibly null) sets of formulas in the following classes:

i) Preconditions - conditions that should be true if the action's execution is to succeed.

ii) Effects - conditions that become true after the successful execution of the action.

iii) Body - a specification of the action at a more detailed level.

In this way, a speech act type may be represented as an action type. The action of informing is:

INFORM(Speaker,Hearer,P)
precondition: Know(Hearer,P)
effect: Know(Hearer,P)
body: Mutually believe(Hearer,Speaker(Want,
Speaker(Know,Hearer,P)))

A plan can be represented as a partial ordering of actions mapping an initial state onto a goal state. If we see a goal state as a target that is being aimed at, then, the program can construct a plan of action to achieve this target by working out which plans it must execute in order to arrive at the goal state. Additionally the system needs to be able to both reason about the ways of achieving goals and to be able to recognise plans (of the patron). There are two plans in the system: the BOARD plan (planning to catch a train) and the MEET plan (planning to meet someone off a train). So, presented with an utterance such as

(40) The train to Windsor?

the system first of all parses the utterance into a semantic representation and then attempts to assign possible speech act types to it using criteria such as sentence mood. Given that the utterance is a request it now attempts to fit it into a plan. It does this by using plan construction rules to expand the top level goals into sub-goals. These expansions are called "expectations". At the same time plan inference rules are used to attempt to work out what the speaker was trying to achieve in making the utterance, these expansions are called "alternatives". Then a forward and backing chaining method is used to make the expectations meet the alternatives and when this happens a plausible plan has been identified.

Having identified the plan, the system now detects any obstacles to its execution. The reply takes into consideration any

perceived obstacles.

Speech act recognition in Allen's system takes the form of marrying together expectations and alternatives to form a coherent plan. There is a certain appeal to this approach because it goes some way to integrate speech acts within a Gricean pragmatic framework. The notion of plan recognition when applied to speech acts appears to go some length towards illuminating the maxim "be informative". Also it is not impossible to see that the plan based approach can be used to explain some of the uses of indirect speech acts. Consider

(41) Do you know where the nearest telephone box is?

(42a)* Yes.

(42b) Yes, its just round the corner on your left.

If we take a plan based approach it is not difficult to see how (41) is perceived as a request for information rather than a question. In interpreting (41) we make an attempt to understand what the speaker had in mind when asking the question (probably that he wanted to use the telephone). Then it becomes clear why (41) is interpreted indirectly.

Allen's approach is not without its problems however. The heuristics used to determine the appropriate plan are domain specific and it is by no means clear whether this approach could be extended to an unlimited domain. Litman (1985) has developed a system for introducing, developing and modifying plans which goes some way towards integrating the plan-based approach with a theory of discourse structure. Discourse structure and speech acts will be discussed in more detail in the next chapter.

An attempt at speech act generation has been made by Appelt (1985). He called his system KAMP - Knowledge and Modalities Planner. KAMP's domain is the assembly and repair of complex electro-mechanical devices. The user of the system is a novice seeking assistance. The speech acts modelled in the system are requesting and informing.

KAMP is a hierarchical planning system that uses a non-linear representation of plans, called a procedural network. Whereas Allen concentrated on inferring plans from utterances, Appelt's work is concerned with the question of how holding a particular set of beliefs and intentions results in an agent making a particular utterance. Linguistic actions form a hierarchy of four

levels:

i) Illocutionary acts such as INFORM and REQUEST.

ii) Surface speech acts such as ASSERT, COMMAND and ASK.

iii) Concept activation - DESCRIBE and POINT.

iv) Utterance acts.

The linguistic levels are expanded downwards within the planner starting with the illocutionary acts and ending up with the utterance acts, but above the illocutionary acts comes the top level goal. For example the top level goal might be to remove the pump from the platform, knowing that currently the pump is attached to the platform. So the top level goal would be ~attached(pump,platform). This is expanded to a series of preconditions such as the fact that the computer (Rob) should be in the same place as the apprentice (John). Then the sub-goal Do(John, remove(Pu,PL)) is expanded into a request that John remove the pump from the platform. However John does not know what tool is required to carry out this action (this conclusion is arrived at by expanding the sub-goal remove(Pu,PL) and discovering that a certain tool is required, Rob then examines what he knows about John and discovers that John does not know anything about this tool, so not only do we need a request to remove the pump from the platform but we also need to inform John about which tool to use (and possibly where it is, by an ostensive act). The further subgoals are generated down to the lowest level using the cycle of plan-generation and critics (Sacerdoti 1977) and after the cycle of expansion and criticism has been completed, KAMP finds each functional description associated with the surface speech acts and unifies it with a teleological grammar, which is a sort of schematic grammatical representation of surface speech acts. Filling in the grammatical schema produces the final utterance.

Allen's and Appelt's work are representative of the approach to speech act theory in AI. Although probably throwing up more questions than they answer, these approaches give us further insight into speech act theory. Allen's work is important because it, to some extent marries together speech act theory to a Gricean pragmatic framework and Appelt's work is of value because it illustrates how utterances can reasonably be interpreted as

multiple speech acts. However, if they achieve nothing else, computational models give us some insight into the complexity of speech act recognition.

This in turn, perhaps serves as a warning that to assume, as has tended to happen in classical speech act theory that there is a systematic, reliable way of utilising grammatical indicators as a guide for speech act type is mistaken.

Allen's work also acts as a pointer to another important dimension to speech act theory: the idea that in the process of producing an appropriate utterance from a speech act might perhaps be guided by pragmatics, such as the ones proposed by Grice (1975). Grice suggested that "talk-exchanges" are governed by an over-riding principle, called the co-operative principle, which may be subdivided into various conversational presumptions (called maxims, by Grice). In any conversational/social situation, these maxims must be mutually recognised if they are to apply and are thus elevated to the status of rules. The co-operative principle consists of four sets of maxims: quantity, quality, relation and manner. The quantity maxim exhorts us to give the right amount of information, the quality maxim exhorts us to be truthful and not to say that for which there is insufficient evidence. The maxim of relation simply states that we should be relevant and the maxim of manner exhorts us to be perspicuous.

At first sight, it is not at all obvious what these maxims have to do with speech act theory, but lets consider for a moment the problem of indirect speech acts. By using an indirect speech act, we are immediately violating the maxim of manner that states that we should avoid obscurity of expression. If we are to incorporate indirect speech acts into a theory of speech acts, then there must be something in that theory that indicates why indirect speech acts are used. To reply that it is conventional to use an indirect speech act in a certain situation is not enough, the simple fact is that wherever we can use an indirect speech act, a direct one also exists, and our theory must give some account of why the indirect speech act is chosen in preference.

Additionally, there needs to be some account of discourse structure in relation to speech act theory. It is not enough simply to state that there are a certain set of speech act types and leave it at that. There are clearly certain rules that govern

how speech acts fit into discourse and there are many unanswered questions with respect to speech acts and discourse structure; for example, if a question is considered a speech act type, then why is not an answer also considered to be a speech act type? If the answer is that it is because a question clearly maps onto a particular grammatical form, then that is not an adequate explanation, because this response falls down when we come to consider questions that are asked indirectly. Another problem that must be faced up to is that of analysing speech acts in relation to one another in discourse. To argue that these relations do not exist, perhaps by invoking Ockham's razor, is to ignore a lot of problems that become evident when examining speech act theory in the wider context of discourse.

2. Discourse Structure

2.1 Introduction

Discourse structure is concerned with the explanation of how sequential organisation in discourse is explained and understood. Discourse in this context refers to any body of text that involves interaction between two or more speakers. This includes casual conversation such as one might encounter at some social event, telephone conversations, interaction in a classroom, interviewing candidates for jobs etc. All of these examples involve some form of interaction between speakers of a somewhat different nature. For example certain things can be assumed in a social conversation that cannot in a telephone conversation because of the proximity of the participants in the social conversation, the rules for interaction in a formal interview are different to those of a consultation with a doctor and so on.

So the central issue in the analysis of discourse is whether there is a formal structure to discourse and if so what it is. Another question that is perhaps no less important is whether the formal structure of discourse in say a classroom situation can be analysed in the same way as say social conversation. So a separate issue is: assuming that there is a formal structure to discourse, is it universal to all forms of discourse or are there a distinct set of discourse types that each have their own variation in terms of structural layout?

Clearly an introduction to speech act theory followed by an introduction to discourse structure needs some explanation. The reason for this is to enable us to can ask the question whether it is possible, or indeed desirable, to integrate speech act theory with discourse structure. The precedence for this question goes back some way, Austin recognised the importance of this relationship when carrying out an analysis of the category that he called expositives:

> Expositives are used in acts of exposition involving the expounding of views, the conducting of arguments, and the clarifying of usages and of references. We have said repeatedly that we may dispute as to whether these are

> not verdictive, exercitive, behabitive, or commissive acts as well... An enormous number [of expositives] ... seem to refer to conversational exchange.
> (Austin 1962,p.161).

Searle also made reference to the discourse structure element of speech acts when cataloguing variations in illocutionary acts:

> Some performative expressions serve to relate the utterance to the rest of the discourse.
> (Searle 1979 p.6).

However the discourse structure element of illocutionary acts is missing in his final theory. Indeed in a later work (Searle 1986) his answer to the question: "Could we have a set of rules for conversation in the same way that we have a set of constitutive rules for speech acts?" is a definite "no".

Another way that theories of discourse structure have a bearing on speech act theory is that theories of discourse could even threaten speech act theory if the two prove to be totally incompatible, for this would force us to assess which of the two we have got wrong and if we find that our theory of discourse structure is more coherent then we would be forced to re-examine speech act theory. Levinson for example suggests that this is indeed the case, in particular, he calls for a re-examination of indirect speech acts, in the light of findings from the conversational analysis approach of Schegloff and Sacks (Levinson 1983, p.356).

In this section I describe first of all two competing approaches to discourse structure. The first is the discourse analysis approach of which Sinclair and Coulthard (1975) is a good example. The second approach is conversational analysis which has been developed by Schegloff and Sacks amongst others, see for example (Schegloff and Sacks 1973).

These approaches are important because although discourse analysis is to some extent compatible with speech act theory, conversational analysis is not. At lower levels of description the structural categories included in the discourse analysis approaches have some similarities with speech act descriptions, however there is not a perfect marriage between the two. In the Sinclair and Coulthard model for example (Sinclair and Coulthard op. cit.), there are low level categories that describe discourse

markers rather than speech acts (see section 2.2 for a description of Sinclair and Coulthard's work).

Conversational analysis on the other hand appears to be largely incompatible with conventional speech act theory for reasons that will be described in section 2.2.

In exploring the relationship between speech act theory and discourse structure we need to ask three fundamental questions:

1. Is there a definite structure to discourse, or is it merely an illusion? Searle (1986) for example, claims that the relationships described in the conversational analysis approach are not indicative of discourse structure, but are mere "regularities". Even if this is true, there are problems with the current theories of speech acts, because relational aspects appear to have some bearing on speech acts (this issue was discussed in Chapter One). It seems somewhat implausible that there is no structure whatsoever to discourse. There are several pointers (see Chapter One) that indicate that there are problems with conventional speech act theory. These problems may well be solved by exploring the relationship between discourse structure and speech acts.

2. The second question is that assuming that there is a structure to discourse and that it is fundamentally compatible with speech act theory, in what way does it affect speech act theory? The answer to this question must be that speech act theory has to incorporate some sort of relational aspect because as it stands, it does allow for a relational dimension. Furthermore, if speech act theory is to fit in with existing theories of discourse structure, then there must be a plausible explanation of how it relates not only to other speech acts, but also how it relates to other discourse phenomena that are explained by theories of discourse. This would include an explanation of how speech acts relate to discourse markers, how speech acts can be paired and how the first speech act in a pair constrains the second. It is also desirable to explain why one surface form is preferred over another under certain circumstances. This notion of preference organisation is fairly central to conversational analysis, but is absent from conventional speech act theory.

If we accept that speech act theory is an integral part of an

explanation of discourse structure we must also accept that certain aspects of discourse organization operate independently of speech act theory. This is catered for in the Sinclair and Coulthard model by the strictly hierarchical organization of discourse. At a certain level above speech acts come conversational exchanges and the rules that govern adjacency of conversational exchanges are almost certainly independent of speech act theory. This is because at some level discourse structure must be concerned with how topics are organised and developed rather than how individual ideas and beliefs are expressed. The Sinclair and Coulthard model relates to classroom dialogue, and at higher levels in the structure, for example, exchanges or transactions, (see section 2.2) considerations such as pedagogic strategies come into play.

Thus we can see that it is totally acceptable to have an explanation of discourse at at least two levels; one independent of speech act theory and the other integrally bound up with it. However if speech act theory is to stand as a plausible theory of how we use language, then it must in some way be bound up with a theory of discourse structure at some level within the hierarchy.

3. The third question is assuming that there is a structure to discourse, and that it proves to be fundamentally incompatible with speech act theory, then what is the future for speech act theory? Levinson (1983) and Schegloff (1988) for example have claimed that the conversational analysis approach puts the whole theory in doubt, and these claims need close scrutiny. However if such an explanation of discourse is to replace speech act theory, then it must be capable of solving the same sort of problems that speech act theory currently does.

Section 2.3 describes some computational models of discourse structure. Although at best incomplete, these models often give an interesting insight into some of the problems posed by discourse analysis. For example, Allen's plan based model (Allen 1983), suggests a possible computational explanation of one of the Gricean maxims. Litman (1985) also gives some insight into insertion sequences described in conversational analysis.

2.2 Linguistic Approaches to Discourse Structure

Discourse Analysis

Levinson mistakenly states that the work in discourse analysis is based on speech acts (or related notions) (Levinson op.cit.p 286). However if we look more closely at the work of Sinclair and Coulthard (1975) for example, the distinction between discourse analysis and conversational analysis becomes less clear.

Sinclair and Coulthard attempted to analyse the structure of classroom dialogue for which they propose a hierarchical structure with five different descriptive levels for the analysis of discourse. At the top level of their analysis comes the lesson which consists of an unordered series of transactions. Each transaction consists of a set of ordered exchanges of the form

PM (M_2...M_n) (T)

in which P is a preliminary exchange M a medial exchange and T a terminal one.

(Sinclair and Coulthard op. cit., p.25)

The parentheses indicate that a unit is optional, so the smallest transaction must consist of at least a preliminary and medial exchange. The preliminary and terminal exchanges are essentially boundary markers between transactions. The medial exchanges are the meat of the interaction between teacher and pupil, and are also known as teaching exchanges.

The exchanges are themselves broken down further into moves, of which a typical classroom exchange consists of an initiation move followed by an optional response and optional feedback move. Typically an initiation move contains some new material presented by the teacher to which the teacher may elicit a response from the pupils and finally provide feedback to the pupils response.

The moves themselves consist of one or more acts which form the primitive level of Sinclair and Coulthard's discourse analysis. Acts may be roughly grouped together into three categories: markers of discourse boundaries for example **OK**, **right** and **well** or even short periods of silence. The second group is concerned with controlling the discourse, for example one act is

called nomination which serves to enable the teacher to nominate a pupil as a participant in the discourse. The third group has informational content for example there are acts called informatives and directives.

It is clear therefore that Sinclair and Coulthard's work is not entirely based on speech act theory. Indeed they themselves warn against equating speech act theory too closely with their own work

> We are interested [on the other hand] in the function of an utterance or part of an utterance in the discourse and thus the sort of questions we ask about an utterance are whether it is intended to evoke a response, whether it is a response itself, whether it is intended to mark a boundary in the discourse, and so on."
> (Sinclair and Coulthard op. cit. p14).

This issue is also discussed in (Holdcroft and Smith 1990).

A question that naturally arises from a study of discourse structure such as the model proposed by Sinclair and Coulthard in conjunction with speech act theory is: to what extent may the acts identified in Sinclair and Coulthard's model be identified with speech acts? Firstly, the point has already been made that there are three distinct groups of acts in the discourse model and only one of them is remotely like a speech act. Of these, there might be a temptation to equate acts such as **informative** or **directive** with their counterparts in speech act theory, but there is a many-to-many relationship between speech acts and discourse acts. For example, the speech act **question** figures in the discourse acts: **elicitation**, **check** and **clue** amongst others. Additionally, the discourse act **clue** may be realised by the speech acts: **question**, **state(ment)** and **command**. One reason for this might be that the discourse acts relate to other acts within the discourse and take account of the position within the discourse; for example the discourse act **check** is so named because it only occurs after the teacher has set a task for the pupils to do and is concerned with their progress. Whereas, the discourse act **metastatement** occurs as an introduction of what is to follow. In other words, the discourse acts are all heavily dependent upon the context in which they are situated, whereas speech acts have been defined in a way that is totally independent of any context, hence there would be

some difficulty in attempting a marriage of the two.

Sinclair and Coulthard's analysis is only concerned with the structure of classroom discourse which is rigidly structured. It is a form of discourse where one (group) of the participants has little control over the direction of the discourse, and also where the teacher can effectively take over control at any point. Thus it is clear that it would not be easy to map the Sinclair and Coulthard model onto open discourse situations, for example, a telephone conversation between two people of equal status.

However attempts have been made to tailor their model to any discourse situation. Burton (1981) for example made just such an attempt. Her modifications were at several different levels of the Sinclair and Coulthard hierarchy. First of all at the lowest level i.e., the act, she made some small additions to the subclass of acts that she called markers. She added what she called "expressive particles" for example **hey,** which would be somewhat out of place in a classroom. This categorisation appears to disguise what is in fact a very complex interaction between discourse markers and the rest of the utterance - see for example Schiffrin (1987) for a comprehensive treatment of discourse markers. Other modifications include "Requests for speaker's rights" which are pre-topic items such as: **Can I ask you a question?** This however is a more interesting modification from the point of view of speech act theory, as it appears to be an attempt to categorise a type of indirect speech act. She also includes conversational pairs such as accuse/excuse and inform/comment.

At the level of moves she adds the following to the list of existing moves:

i) supporting moves, which serve to support the preceding move.

ii) challenging moves, which hold up the topic presented in the previous move.

iii) re-opening moves, which re-open a move that has been challenged in some way or other.

iv) bound-opening moves, which allow the addition of informative and comment acts to enlarge the discourse framework.

Burton also recognises two types of exchanges: explicit boundary exchanges and conversational exchanges. Boundary

exchanges mark the boundary of each transaction, whereas conversational exchanges are the "normal" exchanges that make up a transaction. There is a certain appeal to the modifications proposed by Burton as they can, for example, be used to describe the structure of an argument proposed by Schiffrin (1985). An argument could be described in terms of a move countered by a challenging move, followed up by a supportive move, and so on.

At the level of exchanges, Burton identifies two types of exchange: explicit boundary exchanges and conversational exchanges (Burton op.cit.). The boundary exchanges are optional exchanges that take place at the openings of transactions, while conversational exchanges begin with an opening (or re-opening or challenging move) and are followed by one or several supportive moves. The transaction level is essentially the same as that described in Sinclair and Coulthard's original work.

Conversational Analysis

Conversational analysis on the other hand was originally formulated by ethnomethodologists of which some of the most important work has been by Sacks, Schegloff and Jefferson (1974), Schegloff and Sacks (1973), Schegloff (1972) and Pomerantz (1978).

The basis of the conversational analysis approach is perhaps the adjacency pair, a seemingly obvious relationship between pairs of utterances. Examples of adjacency pairs include question-answer and offer-acceptance.

Schegloff and Sacks (1973) give a more precise definition:

> adjacency pairs are sequences of two utterances that are:
>
> i) adjacent
>
> ii) produced by different speakers
>
> iii) ordered as a first part and a second part
>
> iv) typed, so that a particular first part requires a particular second (or range of second parts) e.g. offers require acceptances or rejections, greetings require greetings, and so on.

Additionally, when the first part of an adjacency pair has been uttered, the speaker must stop speaking and the next speaker must

at some point produce the second part of the adjacency pair.

The first requirement is that the two utterances are adjacent. However, between the two components of the adjacency pair, there frequently occur what Schegloff (1972) describes as insertion sequences:

(1) A: I'd like a Farnborough number please.

(2) B: In Hampshire?

(3) A: No, Kent.

(4) B: OK. what name?

(1) and (4) form an adjacency pair, but another adjacency pair (2) and (3) is inserted in between. Insertion sequences are not restricted to just another pair in between. Levinson (1983) for example describes a sequence where four adjacency pairs are inserted between one. Schegloff (op.cit. p.306) suggests that the criterion of adjacency should be replaced with the idea of conditional relevance. Conditional relevance is a criterion that given a first part of a pair, a second part is immediately relevant and predictable from expectations. Levinson suggests that if the second part fails to appear, then it is noticeably absent. He also states that what conditional relevance sets up is not a formation rule that specifies that say a question must receive an answer if it is to count as well-formed discourse, but it is a set of expectations that have to be attended to.

The second criterion is that the two parts of an adjacency pair are issued by different speakers. This criterion appears to pose few problems unless we consider rhetorical questions. In the Sinclair and Coulthard model, described above, there is an act called a meta-statement. A meta-statement occurs at the beginning of a class-room type dialogue structure and is a statement about what is to follow.

For example, a seminar about speech act theory could start with the (rhetorical) question: **I want to ask a question, Did Searle get it wrong?** This "question" is not so much a question as a statement that the topic of the seminar will be "I believe Searle got his speech act theory wrong, and I intend to explain why". In a sense, it is not a question, it encompasses the whole of what is to follow. It has no answer as a second part of an adjacency pair, but then conversation analysis is only about conversation and not seminars, where the turn taking is rigidly

defined. However the classroom situation described by Sinclair and Coulthard is not that far removed from conversation.

The third criterion is that an adjacency pair is ordered as a first part and a second part, the idea that the adjacency pair must be ordered is not particularly significant to our argument, except to observe that the ordering imposes a structural relationship between the first part and the second. Any such relationship between the two parts is absent in conventional speech act theory.

The final criterion is that the two parts are typed so that a particular first part requires a particular second part. As Levinson points out

> Unless for any given first part there is a small or at least limited set of seconds, the concept will cease, it seems, to describe the tight organization in conversation that is its principal attraction.
>
> (Levinson op. cit. p.306).

Again, according to Levinson, the concept of the adjacency pair rests on the notion of preference organization. Not all potential second parts to the first part of an adjacency pair are of equal standing, he states that there is a ranking operating over the range of alternatives such that at least one is preferred and at least one is dispreferred. This notion is a linguistic rather than psychological one. The idea is that preferred seconds are unmarked, i.e., they are structurally much simpler. Whereas a dispreferred alternative is marked by perhaps a significant delay in delivery, marked by a particle such as **well** or given with an account of why a dispreferred alternative is given. Additionally, the dispreferred alternative may be given in an indirect or mitigated form.

This account of the matching of first and second parts contains some explanations of language usage that is absent in speech act theory, for example it gives some account of the use of discourse markers and clearly needs further investigation.

On top of what is essentially local conversational organisation, there are higher level structures that map onto three or four turns in a conversation. The most important of these are repair and pre-sequences.

Repair (Schegloff, Jefferson and Sacks 1977) is a mechanism

that deals with the correction of misunderstandings, mishearings or even non-hearings. Repair may be self-initiated (repair by the speaker of the repairable item), or other initiated (repair by someone other than the speaker of the repairable item). An example of self-repair might be:

(5) A: How did the monks get there? I mean how could they have earned a living?

The above utterance from a classroom dialogue has a second part which is a self-initiated repair to make the first part clearer.

Pre-sequence is used to refer to both certain kinds of turns and a certain kind of sequence containing that type of turn. For example a summons is a pre-sequence that prefigures a turn containing the reason for the summons. e.g.

(6) A: Hey!

(7) B: Uh?

(8) A: Keep off the grass.

Other types of pre-sequences include pre-invitations, where the first pair starts with a greeting, to be followed by an invitation. A pre-request is a question that sets the ground for a request, e.g.

(9) A: Can I buy a ticket for the concert here?

(10) B: Yes, indeed.

(11) A: Two seats please.

Another type of pre-sequence described by Terasaki (1976) is the pre-announcement. A pre-announcement is exactly as its name suggests, a pair that precedes some announcement. For example:

(12) A: Guess what.

(13) B: What?

(14) A: Its egg mornay for lunch again.

In addition to the intermediate structures described above, there are also some higher level structures called overall organisations that organise the totality of the exchanges within a specific conversation.

Schegloff (1972) identifies a sequence in telephone conversations that occur at the beginning of the conversation called an opening section in which identification, greetings and recognition occur. Following the opening section (still in telephone conversations) comes the first topic slot in which the caller announces his reason for the call. The first topic slot is

a privileged slot which is free from topical constraints arising from prior turns. After the first topic come a series of topics which are related to previous topics.

Mechanisms for closing down a topic are local procedures that can operate throughout a call. Finally there is the closing section, which serves to shut down the conversation. Closing sections must be balanced so that the conversation is closed down without one of participants still having something important to say, and also must be done without undue haste. A closing sequence typically contains the following:

i) a closing down of some topic which may include the making of arrangements, giving regards to other family members etc.
ii) pre-closing items such as: **right, OK,well** ...
iii) a typing of a call (if appropriate) such as a favour granted, checking up on a person's health etc.
iv) a final exchange of elements: **bye, cheerio** etc.

There have been recent attempts to apply the ideas of Schegloff et. al. to larger discourse units. One example of this is the work of Houtkoop and Mazeland (1985) who attempt to apply the ideas of conversational analysis to larger discourse units (DUs).

They distinguish in their model closed DUs where there is a primary speaker who is holding the floor and open DUs where there is a negotiation on the type of conversational unit underway. The description of the closed DUs places the following restrictions upon the traditional conversational analysis model (Houtkoop and Mazeland op. cit. p.601):

i) The primary speaker is expected to continue a DU until a turn - a constructional unit which marks DU completion has been produced.
ii) The DU is sequentially implicative for the kind of contributive DU a recipient can make. The DR (The DU-recipient) should be placed according to the turn-taking model, that is around the end of the turn-constructional units.
iii) If there is speaker transition at a point which is marked as DU-incomplete, there is a preference for the primary speaker(PS) to become the next speaker.

After a recognizable end of the DU, the turn taking model becomes operative again, until the next DU is started.

Another higher level model based on conversational analysis was described by Polanyi (1988) in which discourse structure can be represented as the recursive sequencing and embedding of discourse units of various types. Polanyi also talks about discourse adjacency units which are used in talk to accomplish specific interactional tasks.

Although the two approaches to discourse structure appear to be at odds with each other, there are areas where they share common ground. For example, at higher levels in the discourse model, both approaches advocate a hierarchical structure. The Sinclair and Coulthard model is strictly hierarchical and both Houtkoop and Mazeland and Polanyi advocate an approach that is hierarchical. This suggests that any real differences that exist in the models must occur in either the way the hierarchies have been defined, or at the level of detail at the lower levels in the model.

Even down at the lowest levels of the hierarchies there appears to be common ground that is not at first apparent. Both approaches recognise the importance of boundary markers and although such markers are absent from conventional speech act theory, they are present in the discourse analysis approach. Thus it is not impossible to suggest that if speech act theory were to take account of such markers, then it would come to resemble the conversational analysis approach more closely.

Additionally, the two approaches stress the importance of sequential organisation, however the conversational analysis approach is formal, but the discourse analysis approach is more functional and utterance based. The discourse analysis approach can seem too rigid to be able to encompass the incredible flexibility of language. On the other hand the conversational analysis approach does not appear to be sufficiently well defined to cover the flexibility of language. These criticisms suggest that something between the two approaches might be more satisfactory.

There is another area of common ground between the two approaches that is most striking and yet appears to have gone

totally undocumented. At the heart of the Sinclair and Coulthard model is the move sequence:

Initiation (Response) (Feedback)

Burton suggested that in order to tailor their approach to open discourse, the **feedback** element should be discarded (see above), leaving us with a basic cycle of **initiation** and **response**. Conversationally, this makes sense, A speaks and then B responds to what A has said, possibly taking the initiative himself. The conversational analysis approach has at its heart the adjacency pair: a pair consisting of a first part and a second part. This pair is ordered and typed (see the description above). If we take initiation as the first part and response as the second part, then there is a remarkable similarity between these two descriptions. Perhaps the two approaches are not so much at odds as might first appear.

2.3 Computational Models of Discourse Structure

One of the most ambitious attempts to build a computational model of discourse structure was that of Reichman (1985). Reichman sees discourse (specifically, conversational discourse) structured as a series of functionally related conversational moves interspersed among utterances that serve as a continuation of what has gone before. She identifies six types of conversational move: (Reichman op. cit. p.21)

i) presenting a claim
ii) explaining a claim
iii) challenging a claim
iv) giving support to a claim
v) shifting a topic
vi) resuming a preceding subject of discourse

This analysis fits into the previous models of discourse analysis because conversational moves are merely formal descriptions of boundaries between higher level discourse units.

Reichman imposes a further structure onto discourse in the form of a context space (Reichman op. cit. p.24). The context space is partially defined by the conversational structures it contains. Reichman then states that a discourse structure can be defined in terms of the context spaces it contains.

Reichman then goes on to describe a program that recognizes the formal structures described above that she claims constitute a discourse. Reichman's largely hierarchical approach is in many ways similar to the Sinclair and Coulthard approach, though not as detailed, in that there do not appear to be anything equivalent to Sinclair and Coulthard's acts in her work.

A different approach was taken by Allen (1983) in his plan-based approach to natural language understanding, described in Chapter One. Allen's work was extended by Litman (1985) from a sentential plan recognition system to a plan-based theory of discourse. A major assumption of her work was that:

> The structure of dialogues and the use of surface linguistic phenomena are highly rule-governed.
> (Litman op. cit. p.15).

The system carries out plan analysis using knowledge about the structure of typical plans (known as domain plans), it also attempts to cope with "things people do with plans", known as meta-plans using a knowledge of the previous dialogue and a data structure for maintaining the relationships between the plans (known as a plan stack). Plans have been described in Chapter One, but the idea of meta-plans is new and needs some explanation.

A meta-plan is a plan-about-plans that deals with a sort of executive handling of plans. For example there are meta-plans that deal with introducing plans, executing plans, specifying part of plans abandoning plans etc. A meta-plan is specified as having a header, which is a description of the meta-plan, a decomposition which is the speech act that is used to introduce the meta-plan into the dialogue, effects which specify what action is to be taken next and constraints which specify the minimum requirements for the meta-plan to be performed.

The meta-plan INTRODUCE-PLAN can be specified as:

HEADER:	INTRODUCE-PLAN(speaker,hearer,action,plan)
DECOMPOSITION:	REQUEST(speaker,hearer,action)
EFFECTS:	WANT(hearer,plan)
	NEXT(action,plan)
CONSTRAINTS:	STEP(action,plan)
	AGENT(action,hearer)

(Litman op. cit. p.29)

REQUEST is the speech act that is used to issue the meta-

plan, WANT is based on the assumption that the hearer is a co-operative agent and will therefore adopt the plan as a joint action to be performed. NEXT specifies that the action marked in the WANT operator will be the next action to be performed. STEP and AGENT are constraints that specify that the hearer must be able to perform the plan in question.

The plan stack is used to monitor the execution of a task including its various clarifications and corrections. During the course of a dialogue, a stack of executing and suspended plans is built up and maintained by the plan recognizer. Within the stack each meta-plan refers to the plan below it, and the currently executing plan is maintained at the top of the stack. The plan stack is effectively a description of all plans and meta-plans that are currently active in a dialogue with the meta-plans related to the domain plans that they are modifying.

Although Litman's approach is very interesting there are some very difficult problems that it does not appear to have tackled. In an unrestricted domain, how does the plan recognizer work given an almost limitless variety of plans and domains? Secondly, it is not clear how the plan stack carries out its housekeeping to clear out abandoned plans which happen with great regularity in open discourse. For example, whenever a new topic is introduced by means of some strategy such as: **Oh, by the way...** or **That reminds me...** In this situation, unless the first speaker is very determined not have the current plan dropped it is likely to become interrupted at this point and may never be re-introduced, unless one of the speakers makes a determined effort to do so. The problem then for the stack housekeeping is when to remove the suspended plan from the stack.

2.4 Other Artificial Intelligence Approaches to Discourse

Much of the early work in understanding discourse centred around the use of frames (Minsky 1975). A frame is a data structure that allows a class of objects to be described. It consists of a collection of slots that describe aspects of the objects. These slots may have a set of conditions attached to them that must be met by anything that fills the slot. Additionally, they may have associated with them procedural information. This

procedural information may specify what has to be done if the slot becomes filled (this is known as an IF-ADDED procedure) or how to obtain the value to fill the slot (an IF-NEEDED procedure). Related frames may be grouped together to form a frame system. Because frames contain information about many aspects of an object, this information can be used as though it has been explicitly observed. For example a frame about a room will have a slot describing a door, and whether or not the door of a particular room has been explicitly mentioned in say a dialogue, the frame system is able to make inferences based on the assumption that that particular room has a door.

Scripts (Schank and Abelson 1977) are an adaptation of frames. Schank built a natural language understanding system based on three ideas. Firstly, semantic primitives which were supposed to be capable of describing all actions described in language. There are eleven basic semantic primitives (see Rich (1991) for an introduction to the subject), for example, PTRANS is the physical transfer of an object, MBUILD means building new information out of old. Thus by using these semantic primitives, Schank claims that all actions could be represented using language independent semantic units.

The second idea was called conceptual dependency which was a theory of how the meaning of language can be represented in such a way that inferences can be drawn from sentences in a way that is independent of the original sentences. Conceptual dependency representations are not built out of the primitives corresponding to words in the sentence, but combinations of sentence units. Conceptual dependencies can be built up using semantic primitives plus four primitive conceptual categories representing actions, objects, modifiers of actions and modifiers of objects. Conceptual dependency resulted in a small set of possible interactions between what Schank called actions (verbs), objects (nouns), modifiers of actions (adverbs) and picture aiders (adjectives). One example was the relationship between an actor and the event that he or she causes.

Semantic primitives were put into a data structure called a script which described a stereotyped situation such as taking a meal in a restaurant or taking a ride on a bus. The set of semantic primitives put together gave an overall description of

the events that typically take place when executing a script. Thus eating in a restaurant contained scenes: entering, finding a table, ordering, eating the meal, paying and leaving.

The script also had props which were the objects that appeared in the script, for example tables, chairs and menus in a restaurant script. There were also roles which were taken by the participants of the script, for example, customers, waiters and cooks in the restaurant script. The script had entry conditions, such as the fact that the customer was hungry in the restaurant script, and results such as the fact that the restaurant owner had more money after the meal. The advantage of such a description was that it enabled the computer program to infer events from a story. For example, if we are told that someone went into a restaurant and had a meal, then we can infer that they sat down at a table even though it is not explicitly mentioned. At the time this represented a step forward in Artificial Intelligence research. Semantic primitives and conceptual dependency are described in greater detail in Schank (1975) and scripts are described in Schank and Abelson (1977).

A system implemented using scripts could build up a representation of a story about an everyday situation, it could then answer questions about information that might not have been explicitly mentioned in the story. For example a story such as:

John went to dinner. He ordered steak teriyaki. After he had his meal, he went home.

A script system could answer a question such as:

(15) Did John pay for his meal?

It could also deal with stories where the script may be incomplete, for example:

John went to dinner. He waited for ages to be served. He got mad and left.

A script system could then correctly answer a question such as

(16) Did John eat his meal?

One of the more successful programs that used scripts was called SAM (Script Applier Mechanism) (Cullingford 1978) which attempted to make sense of newspaper stories. Unfortunately, it suffered from the same drawback as any script based system in that it only worked for stories that fitted the script stereotype.

A telling objection to the whole idea of scripts is given

by Dreyfus (1979 p.43).

> Real stories pose a further problem for Schank's approach. In a script ... what counts as the relevant facts depends on the story itself. For example a script that describes a bus trip contains the fact that the passenger thanks the driver. But... [that] would not be important in a story in which the passenger simply took the bus as part of a longer journey, while it might be crucially important if the story concerned a misanthrope who had not thanked anyone before.

A more plan and goal based system was written by Wilensky (1978) which attempted to understand stories by reasoning about the plans and goals of the agents involved in the story. His program PAM (Plan Applier Mechanism) described an algorithm for detecting and processing various types of goal-based stories, using knowledge about what goals existed, how goals were fulfilled and how they interacted. It used bottom-up reasoning to form script like explanations. However there was nothing in this work regarding intentional aspects of stories or issues relating to surface linguistic phenomena. Also the work concentrated on the goals of the characters in the story rather than the goals of the writer of the story (Litman 1985).

There has been some work on plan recognition systems that inferred intentions from a description of the actions of the participants of a sequence of physical actions (Schmidt et. al. 1978).

Sidner has carried out research with understanding dialogues both intentionally and by using surface linguistic phenomena Sidner (1985). Grosz has carried out work on planning to integrate multiple perspectives Grosz (1979). Extensions to planning have been carried out by Cohen and Levesque (1985) and Kautz (1985) who are interested in developing a formal theory of planning for systems that view language as planned behaviour. Cohen and Levesque use a possible worlds semantics to develop a theory of communication, whereas Kautz is concerned with non-monotonic aspects of reasoning with plans.

2.5 Issues in Discourse Analysis

Returning to the three questions raised in section 2.1: the first of these was the question whether there is such a thing as a structure to discourse. Very little has been said about this simply because the chapter is about theories of discourse that presuppose that there is some sort of structure. However this question should be examined briefly.

Searle brought Ockham's razor to his defence in order to justify the non-relational nature of speech act theory. Indeed he has recently argued that there is no real structure to discourse Searle (1986). A convincing refutation of Searle's arguments have been given in Holdcroft (1991).

Searle gives four main reasons why he feels that there will be no adequate theory of the structure of discourse. Firstly, there are few interesting sequential relationships between speech acts (Holdcroft op. cit.). Secondly, he feels that conversations lack a purpose or point and hence cannot be explained in terms of pragmatic maxims of the type proposed by Grice. Thirdly (Searle states) that what appear to be rules, are mere regularities in language caused by a behaviour that is difficult to diverge from. This is his main criticism of the Schegloff et. al. approach. Finally, Searle feels that it is what he calls "the background" to a conversation that determines what is relevant and what is not, it is the cognitive views of the participants in the discourse that determine the relevance, hence it is not possible to have a general theory of relevance.

Holdcroft discusses these points at some length. In answer to point one, Holdcroft states that Searle's view holds only if we accept Searle's view of speech acts to be correct and in any event, speech acts only have a minor role to play in any theory of discourse structure. It is quite possible for speech acts to have a substantial role to play in a theory of discourse structure, even if it is only at a low level (see section 2.2). Holdcroft then goes on to reject Searle's second point and argues that Searle's view of the background is not sufficient to reject out of hand the idea that conversation has a structure, indeed to accept Searle's view would be to totally undermine cognitive science.

Searle's stance on discourse is understandable given his

description of speech acts. However, this is in spite of the fact that Austin originally pointed to the possible relationship between speech acts and discourse structure when looking at the expositive class of speech acts. It is also in spite of the fact that Searle himself originally stated that how one speech act stands in relation to another has a bearing on the description of the speech act (see Chapter One). His final description of the components of illocutionary force do not allow for the possibility of any relations between speech acts, and hence he is forced into rejecting the stance that discourse has a structure. This is a position that I find untenable.

The second question made the a priori assumption that discourse structure was compatible with speech act theory, but asked how this compatibility affected speech act theory. The Sinclair and Coulthard model appears on the face of it to be compatible with speech act theory. However a great deal of work has to be done to fully integrate speech act theory into a discourse model along the lines proposed by Sinclair and Coulthard. Some of the Sinclair and Coulthard acts appear to describe speech acts, but these are merely functional categories and do little to constrain the possible speech acts in any given position in a piece of discourse. When attempting to describe the relationship between two adjacent speech acts we need to examine relevance - what it is that makes adjacent utterances relate to each other.

Sperber and Wilson (1982) put forward a pragmatic theory based on the theory of maximal relevance. They suggest that:

> Degrees of relevance depend on a ratio of input to output, where output is the number of contextual implications, and input is the amount of processing needed to derive these contextual implications.
>
> (Sperber and Wilson op. cit. p.74)

Sperber and Wilson describe processing time as some function of time and energy expended. Their theory is expanded in greater detail in (Sperber and Wilson 1986). However there are grave problems with this approach, for example see Gazdar and Good (1982). Gazdar and Good's demolition of Sperber and Wilson's theory is based on an attack on Sperber and Wilson's notion of

non-trivial inference and also degrees of relevance.

A more interesting account of conversational relevance is given by Holdcroft (1986a,1986b,1986c,1986d). Firstly as a pragmatic maxim, relevance has been regarded as having a pre-eminent position (Holdcroft 1986a). Holdcroft asks the question what relevance relates to, sentences, speech acts, speaker's goals etc. Conversational analysis suggests a structure to discourse in the same way that there is a grammatical structure, except that the units are functionally related. Holdcroft sees problems with this (Holdcroft 1986a,p.2). Firstly, because of the functional relationships, there are several different syntactic realisations to the units, and the relevance relationship is difficult to define. Additionally, it must be possible to separately identify the question and answer in a question-answer pair from their place in any given structure.

He suggests that the problem of relevance can be sub-divided into logical relevance, topical relevance and relevance to a higher order goal, though it must be said that Sperber and Wilson made a not very successful attempt to describe logical relevance.

Several issues have emerged from the investigation into speech acts and discourse structure. Firstly when examining the two main rival theories of discourse structure, we notice that at a higher level both theories talk about a hierarchical structure superimposed onto a more primitive set of units. So it is at the lower level where the main difference of opinion is most apparent. Both approaches to discourse structure mention the use of discourse markers in their respective theories: discourse analysis has as some of its lowest level units discourse markers. Conversational analysis uses discourse markers to mark dis-preferred seconds in adjacency pairs, so there are grounds for investigating the role of discourse markers in discourse structure. The conclusion that one must draw from this is that there are very real points of contact between the two theories that are worthy of further investigation.

Finally, it must be realised that relevance is a very slippery notion. Consider the following conversational pairs:

(17) A: We stopped over in Singapore for a couple of days and saw some of the sights, such as Orchard Road and the Merlion.

(18) B: Singapore's streets are clean enough to eat off.

B may not have visited Singapore and hence had no experience of it but has heard about the cleanliness of the streets and thus made an effort not to appear ignorant about the place.

(19) **A: We went to York recently and visited the Jorvik centre. It was very impressive.**

(20) **B: York reminds me of Chester with all its quaint old narrow streets.**

In this couplet, **B** makes a statement that is relevant in that it refers to York but **B** is perhaps making an attempt to shift the conversation to more familiar territory. Possibly **B** did not know what the Jorvik centre was. The conclusion that may be drawn from this is that relationships between sentences may only involve relevance in a very weak sense, and relevance on its own is unlikely to be the key to sequential organisation.

It is hardly meaningful or desirable to attempt to describe the relationships given above purely in terms of speech acts. However speech act theory should be able to say something about more closely associated acts such as question/answer pairs and this is where the rival theory comes into its own.

There appears to be some common ground between the discourse analysis approach and conversational analysis because of a striking similarity between the core components of both approaches. The modified version of Sinclair and Coulthard's model (Burton 1981) has the initiation-response cycle as the central part of the structure. This idea of initiation-response is not wholly dissimilar from the idea of an adjacency pair, where the first part initiates something (a question initiates an answer), and then the second part provides a response to the first. The main difference of course is that the adjacency pair is described in a formal way.

The third question assumes a priori that speech act theory is fundamentally incompatible with an explanation of discourse structure and asks the question: what are the implications for speech act theory if this proves to be the case? The implications are bleak if this turns out to be true. The principal contender to thus unseat speech act theory is conversational analysis. Examining the different approaches of discourse analysis and conversational analysis we see that the main differences appear

to occur at a lower level as both discourse analysis and conversational analysis models view discourse as a hierarchy of structures. But a closer examination of the two approaches suggest that these differences may not be as great as it might at first appear.

Levinson (op. cit. ;p 356) suggests that the conversational analysis approach solves the problem of indirect speech acts. The problem, posed in classical speech act theory is simply that of why an utterance does not have literal force but some other force that is explained by a theory of indirect speech acts. For example the utterance:

(21) Must I ask you to take out the garbage?

would be interpreted as a request rather than a question which is its literal force. Concentrating on requests, Levinson explains away the problem of indirect speech acts using pre-requests. A pre-request is a sequence that has a four-position structure:

(22) A: Do you have seats for the Saturday matinee? (PRE-REQUEST)

(23) B: There are plenty in the circle and balcony. (GO-AHEAD).

(24) A: I'd like two in the balcony, please. (REQUEST).

(25) B: OK. (RESPONSE).

In a pre-request, position 1 turns (22), check that conditions for successful position 3 turns (24), obtain. This appears to be because the preference ranking of a request prefers acceptance and dis-prefers refusal, therefore the pre-request effectively sets up an acceptance by checking the pre-conditions for that acceptance. In cases of doubt pre-requests are preferred over requests. What is checked in the pre-request is the most common grounds for refusal (Labov and Fanshel 1977). This may be whether goods are in stock in service encounters (as above) (Sinclair 1976) or inability to fulfil the request. Levinson suggests that there may be a preference to avoid requests altogether, hence a pre-request may be taken as a hint that someone wants something. Thus the most preferred form would be a pre-request immediately followed by the response, e.g.

(26) Do you have 'The Independent'?

(27) Here you are (Provides).

In this way position 1 pre-requests can be phrased in order to get

directly to position 4. Brown and Levinson (1979) note another form of pre-request that enables a position 4 response to be arrived at directly:

(28) I don't suppose you have this in black?

(29) No I'm afraid not.

This is an example of what Brown and Levinson call interactional pessimism. Levinson goes on to suggest (Levinson op. cit. p.363) that this strategy of 'loading' a pre-request so that the response can be reached directly explains the problem of indirect speech acts because, he suggests, that for each type of indirect request there is an appropriate underlying strategy for going from a pre-request directly to the response without going through the intermediate stages. He suggests that:

> Careful comparison of this conversationally based account with the standard accounts of speech acts will show that it renders many of the most problematic aspects of indirect speech act issues quite illusory.
> (Levinson op. cit. p.364)

One of the most interesting and challenging aspects of conversational analysis is the attempt to explain indirect speech acts and this needs further investigation. Levinson (op. cit.) described in some detail how a four-turn sequence such as a pre-request before a request, can be compacted into the first and fourth turns (see above) with the first turn effectively inviting a fourth turn response. Levinson then suggests that all indirect speech acts might be explained in this way. Additionally indirect speech acts were hinted at when talking about dis-preferred seconds to the first part of an adjacency pair.

Taking the compacted four-turn sequence first, if there is an indirect speech act that cannot be explained away in this way then the explanation given by Levinson is at best incomplete. Consider the class of indirect speech acts known as hints, for example:

(30): Its snowing heavily this evening.

(31): I'll give you a lift.

(32): Thanks.

The first utterance, issued in a snow-storm by **A** a non-car owner to **B** is treated as a request for a lift. If we are to accept this interpretation of the sequence then there must be some explanation based around the use of a pre-request or at least some sort of

preparatory structure. The problem with a hint as a pre-request is that if the hint is either ignored or not perceived as such then the request is unlikely to follow. Consider the response to (30):

(33): Yes, indeed.

The respondent either ignores the implied request or fails to see that it is a request rather than a statement of the obvious. Social convention would almost certainly forbid the speaker from then going on to make the request directly. If there are no circumstances under which the request can be made directly, then a hint cannot be called a pre-request. Another type of indirect speech act that throws doubt on the conversational analysis approach is the following:

(34): (Mother to Son): Must I ask you to take out the garbage?

Then consider an equivalent indirect speech act:

(35): (One stranger to another in a train): Must I ask you to close the window?

According to the conversational analysis approach there is a single explanation why this type of indirect speech might be used based on a pre-request - request sequence. The mother to son utterance although not exactly polite would be acceptable, whereas the second utterance is not only impolite, but does not make sense pragmatically because the indirect speech act pre-supposes a prior agreement that the hearer would carry out the action. This analysis suggests that politeness as well as the relative statuses of the participants in the discourse plays an important part in unravelling why indirect speech acts are used. Additionally prior, mutual knowledge and any form of contract between the participants appears to play an important part in a theory of indirect speech acts.

Another point about pre-sequences is that they do not appear to be uniform phenomena, for example it is not clear that a pre-announcement serves the same sort of function as a pre-request. It does not for example appear to have the same potential for collapse into two utterances, except that B might pre-empt A's pre-announcement:

(36) A: Guess what?

(37) B: Its egg mornay for lunch again.

It does not serve as a vehicle for explaining an indirect speech

act. Its use does not even appear to bear any relationship to the corresponding form pre-request. This only serves to re-inforce the view that the conversational analysis is not so much a theory as a set of observations. Although discourse analysis and speech act theory are compatible, conversational analysis and speech act theory are not. However, this arises because of the treatment of indirect speech acts in conversational analysis, but this argument fails because it is simply insufficient to explain all types of indirect speech acts. Furthermore, the categories used in conversational analysis (pre-sequences) are in themselves inconsistent and appear to be more observations of mere regularities in discourse, rather than a fundamental component. We may thus conclude that in conversational analysis, we don't have a theory of discourse that is incompatible with speech act theory.

Several other aspects come into the theories of discourse without being explicitly mentioned. Perhaps the most interesting of these is politeness. Is it the case that conversational analysis explains the phenomenon of politeness, or is it perhaps that there are politeness maxims that are driving the conversation and producing the results that are being observed in conversational analysis? The status of the speakers seems important, but gets no mention in the conversational analysis approach. Finally, the problem of context also rears its ugly head when looking at some of the examples.

Levinson suggests that a pre-request may be taken as a hint that someone wants something, however its use is to some extent governed by context, consider the example:

(38) A: Do you have 'The Independent'?

(39) B: Here you are. (provides)

Lets suppose that instead the conversation takes place in a large DIY superstore, then we are likely to get the following sequence:

(40) A: Do you have any replacement rotary blade cutters?

(41) B: They're in the gardening section next to the pesticides.

B is only likely to fulfil the request if a further request is made. e.g.

(42) A: Could you show me where exactly?

This is an example of the co-operative principle of Grice. Could it be the case that a plan-based model (similar to the one

described in section 2.3) could provide us with a suitable explanation of what is going on here? The pre-request sequence does not seem to adequately explain all possibilities. It does not explain hints, because if a hint is ignored, it is usually the case that steps 3 and 4 of the pre-request sequence are not carried out. Furthermore it does explain why the sequence sometimes stops at step two as in the example given above. It also provides no explanation as to why certain types of indirect requests are used, such as the formula:

(43) Must I ask you to X?

described above. However pre-sequences are interesting, and they do pose some questions that are not adequately covered by traditional speech act theory.

AI models may also have something to contribute as Allen's plan recognition system (mentioned in Chapter One) describes one of the Gricean pragmatic maxims in action (be informative). Could a plan model do more than just this?

It is apparent from this study that in order to have an adequate theory of speech acts, that discourse structure is important and must be studied in conjunction with it. However in recognising the importance of discourse structure in speech act theory and vice versa, we must also recognise the limitations of speech act theory with respect to discourse structure. At higher levels of the descriptive hierarchy, speech act theory apparently has little or nothing to do with discourse structure. It is also evident from this study that discourse analysis is compatible with speech act theory, although there are several unanswered questions in both theories. Finally, conversational analysis, although it has provided us with many insights into discourse structure is theoretically weak and although it has been alleged to have undermined speech act theory has failed to do so.

Several questions and lines of investigation have been opened and only some of these will be explored in the next few chapters. Chapter Three describes an attempt to re-examine speech act verbs in order to find a more plausible set of primitives for them and also to build a logical form of the speech acts.

3. The Deconstruction of Speech Act Verbs

3.1 Introduction

In Chapter One I described some of the more traditional theories of speech acts and in Chapter Two looked at discourse analysis and its possible relationship to speech act theory. Having examined existing theories it is now time to attempt to build a new theory that will hopefully answer many of the problems posed. I intend to take speech acts as the starting point for my new theory, in particular to examine speech act verbs as they at least provide a means of categorising different speech act types. An interesting account of speech act verbs is given by Wierzbicka (1987), and I will to a large extent draw on this work for my description of speech act verbs, simply because, even though I don't agree with all of the descriptions they do at least have many similarities to the approach I intend to take in my own description of speech act verbs.

In section 1.6 I listed seven problems with Searle's theory of speech acts. It is now time to examine these in more detail.

The first point was that the basis for Searle's account of speech acts is largely sentential in nature and does not allow for the possibility of a structural relationship between speech acts and units of discourse. In order to make clear why Searle's theory does not allow for any relational aspects we need to examine carefully what his theory states. Firstly, he talks about direction of fit (section 1.3) stating that there are four and only four possible directions of fit: word-to-world where the utterance fits an independently existing state of affairs in the world; world-to-word, where the world is altered to fit the propositional content of the illocution; the double direction of fit and the null direction of fit. If we are to allow a speech act to relate to something that has occurred previously, perhaps we should add a direction of fit such as word-to-context where the propositional content relates to a previous speech act within the context. But this is a rather vague and somewhat problematic definition because it only considers a speech act to be a type of function operating between the propositional content and what that

propositional content represents in the world. However, there is a sense in which the context (both linguistic and non-linguistic) plays an important role in speech act recognition. An account of this is given by Gazdar(1981) in which he states:

> I'm not claiming that a theory of speech acts constitutes a theory of utterance sequencing but only that an account of the recognition and interpretation of speech acts is a necessary component of such a theory. (Gazdar op. cit. p.65)

The problem with the word and world idea is that it gives no account of how a speech act interacts with other speech acts within the discourse. This is especially problematical when we must accept that one surface form can be interpreted as several different speech acts. Gazdar uses as an example:

(1) You will go home tomorrow.

which may be interpreted as a question, a prediction, an order but not for example as a promise.

We also need to examine the seven components of illocutionary force to see why on Searle's account, they are incompatible with the notion that one speech act can relate to another (section 1.4). Firstly there is the illocutionary point of the utterance, which is the purpose or point of a particular act. I see no problems with the illocutionary point, except that it says nothing about the relational problem, but there is no reason in principle why it shouldn't. For example, if the illocutionary point of a question is to get the hearer to provide an answer, then in a sense the illocutionary point of the question is hinting at a relationship between one speech act and another. Because I see no problem with the illocutionary point, I also have no arguments with the degree of strength of the illocutionary point, except to remark that it should not necessarily be regarded as a linear scale. I have pointed out previously that certain speech acts such as **permit** do not readily fit into the tableaux given by Searle and Van der Veken (1985) and therefore the degree of strength could perhaps be better viewed as some sort of computation upon an n-tuple of factors that determine the strength of the speech act.

The third component of illocutionary force is the mode of achievement. The mode of achievement is an amorphous grouping of extra-linguistic means of underscoring the illocutionary force of

an utterance. For example, Searle cites **command** as a speech act that carries a mode of achievement as part of its illocutionary force. A **command** is carried out from a position of authority and it is this position of authority that is the mode of achievement. Similarly **testify** has as mode of achievement the fact that it is asserting the truth of something while under oath. Authority appears to be important for an explanation of speech acts, but doing something such as testifying seems to be somewhat different. When someone testifies, they have previously sworn on something that they hold to be sacred that they will tell the truth. While testifying, we may do many things, such as make requests or ask questions as well as asserting that something is the case with the special mode of achievement of being under oath. I am going to be concerned with the relationship between speech acts and discourse and its structure, as well as their relationship to surface forms, hence I will consider **testify** as forming a special category of speech act that I intend to call a formal speech act. We cannot for example use special indirect forms that count as testifying, in the way that we can with speech acts such as **request**. Furthermore, testifying does not significantly alter the surface form; consider a situation where two individuals have both testified that what they are about to say is the truth, then they carry on a conversation in a normal manner. A transcript of their conversation would be indistinguishable from one where neither party was under oath. The point of this is that the fact that someone is testifying to something being the case does not materially alter the actual way (in terms of surface forms) in which they say something. Because of this, I argue that speech acts such as **testify** should be treated as special cases, as formal speech acts.

However before going on to explain what formal speech acts are, it is worth investigating the notion of authority and its effect upon speech acts

Berry (1982) identified (at least) two relationships between speaker and hearer with respect to authority: firstly when either speaker or hearer is in a position of authority over the other, and secondly where either speaker or hearer is in the position of being the **primary knower**. It must be realised straight away that the position of authority can change depending upon the subject.

For example, even if **A** has institutional authority over **B**, **B** could still give an order such as: **Kindly remove your hand from my knee!** **B** still has certain rights and can order **A** not to violate those rights. The same applies to the position of primary knower. The primary knower is assumed to be an authority on the subject matter of the conversation. Everyone can at sometime be a primary knower. For example, anyone who is relating their personal experiences is assumed to be the primary knower with respect to that subject. Thus the position of authority and primary knower are to some extent determined by the subject matter of the conversation.

Going back to formal speech acts: by making this distinction I am attempting to distinguish those speech acts that shape surface forms and determine those that are integrally bound up with discourse from those that are not. To explain exactly what I mean by this; consider Searle's class of speech act verbs called declaratives: very often these involve ritualised ceremonies using pre-determined text, for example: **baptise** or **excommunicate**. No-one would seriously argue that these speech act verbs are going to denote separate grammatical structures. On the other hand the speech act verbs: **question** and **assert** appear to map onto different sentence types. Furthermore, a speech act verb such as **testify** also has no distinct surface form. The point is that certain speech act verbs have nothing to do with distinct sentential types whereas others do.

The second point is that certain speech act verbs appear to have no relational element to them, again consider: **baptise** or **excommunicate**. There is no possible discourse relationship between these and any other act in the way there is for **offer** and **acceptance**, say. However, there are a set of speech act verbs that I would like to include in the category of formal speech acts which can appear within normal discourse and do appear to relate to other acts. An example might be **resign**. Just what are or are not formal speech acts will become clearer as I move on to define those speech acts that I consider to be outside the class of formal acts.

Going back to the idea of testifying: clearly it is different from asserting, but the added component that makes **testify** different from **assert** does not change the surface form or the rules that govern discourse structure. When I testify that

something is true, I am still obeying Grice's pragmatic maxims (assuming that it is they that guide conversation). I still answer questions and still have a similar range of responses to requests. I can also in certain ways **assert** indirectly but I cannot in any way be said to be testifying by speaking indirectly, it is known beforehand that I am testifying, whether or not I speak indirectly. This means that by testifying, I am not altering the relationship between speech act and grammatical structure or choice of surface form. For these reasons, I argue that speech acts such as **testify** should be treated as separate cases. There are still other speech acts such as **baptise** that use a pre-ordained set of words and that only if very specific people utter those words do we successfully achieve baptism. The declarative speech acts similar to **baptise** have no role to play in an understanding of the relationship between speech acts and discourse structure and I do not intend to cover them further.

Although I agree to some extent with the idea of a mode of achievement, the type of speech act that use it are of no significance when considering the relational aspect of speech acts.

The fourth component of illocutionary force is the propositional content condition(s). Propositional content conditions do nothing in their own right to help us solve the problem of context, however they are significant and should thus be considered further. Propositional content conditions include constraints such as the fact that I cannot predict something that has already taken place, or **report** on something that has yet to take place. In other words, they are constraints put upon the speech act type by the propositional content itself.

The fifth component of illocutionary force are preparatory conditions, and include such things as the fact that promising presupposes that the speaker can fulfil the promise. I propose to greatly extend the category of preparatory conditions as they can provide us with just the relational link that we require. To illustrate just how this can be achieved, consider a **request**. We could regard that as communicating a want, in that speaker communicates to hearer that he wants the hearer to (do) P. If we then consider this communicated want as part of the overall context, then fulfilling the **request** can be seen as responding to

that want. In this way a relational link is set up between the original **request,** and the response to that **request** and the two acts are related via the context. The notion of "preparatory conditions" and the possible relationship between two speech acts via a common context is something that will be developed in this and coming chapters.

The sixth component of illocutionary force consists of sincerity conditions. Sincerity conditions should be examined at two different levels. Firstly, it is worth pointing out that Austin's original idea came from an examination of performatives. He spoke in terms of misinvocations, (Austin 1962,p.17) where the procedure may not exist, misapplications, where it exists but cannot be applied in the manner purported, and misexecutions, where it is applied incorrectly. However Searle chose to apply the idea of sincerity conditions more to conventional speech acts, and this seems to lead to a gap in speech act theory. If speech act theory is supposed to be a total explanation of how we can use language, then if sincerity conditions apply to all speech acts they must surely apply to lies. Although sincerity conditions are important for performative acts, I feel that they are misapplied to other speech acts. In fact an explanation for Searle's idea of sincerity conditions for acts such as **assert** can be furnished by application of Gricean maxims (see Leech 1983 and also Chapter Six).

The explanation of speech acts that I will propose will be capable of including the possibility of someone telling a lie without it violating a requirement of one of the constituents of the description of speech acts. Telling a lie involves someone knowing or believing that **P** is true and stating that **~P** with the intention that the hearer believe that **~P**.

The final component of illocutionary force is the degree of strength of the sincerity condition. However, even if we accept that a sincerity condition be a constituent component of illocutionary force, then it does not follow that the "degree of strength" can be measured on a linear scale. The examples used by Searle illustrate this point: **request** and **beg** are often paired together with **beg** having a stronger sincerity condition than **request**. Similarly **assert** and **testify** are paired with **testify** having a stronger sincerity condition than **assert**. However the

facts that make **beg** "stronger" than **request** are different from those that make **testify** stronger than **assert**.

In attempting to examine the question of relations between speech acts, I have examined the seven constituent components of illocutionary force and have come to the following conclusions:

i) The illocutionary point of a speech act could be construed in a relational way, in the sense that a **request** for example can be seen as an attempt by the speaker to elicit a response from the hearer.

ii) Preparatory conditions may be used to provide a link from one speech act to another via a context.

In this chapter and the following ones, I intend to build upon these ideas to present a new theory of speech acts that embraces the relational problem while at the same time describing how speech acts relate to discourse structure.

The second criticism of Searle's approach given in section 1.6 concerns the rigidity of its approach. I have already touched on one of the problems, namely that some of the components of illocutionary force are either too amorphous or too simplistic, in particular the mode of achievement and the propositional content conditions. Additionally, the degree of strength of the illocutionary point cannot surely be measured on a simple linear scale. I have already given some reasons why this is so above. A further problem is that the speech acts presented are essentially sentential in basis, since their content is a proposition expressed by a sentence, and this restriction to one level rules out a possible explanation of lower levels units of discourse, such as discourse markers, or higher level units such as conversational exchanges. I originally cited **argue** as an example of a speech act that is more compatible with a higher level unit of discourse than are speech acts according to Searle's description. I will describe **argue** in more detail below.

My third criticism was that too much emphasis was placed on entailment relations between speech acts. This took an extreme form in the semantic tableaux presented in Searle and Van der Veken(1985). Austin himself had warned against placing too much reliance upon the entailment relations of speech acts, and I feel this has proved to be sound advice. The problem with entailment and the notion of primitive speech acts is that it falls down for

certain speech acts, such as **permit** in the case of the directive class, and is almost absent in two classes of speech acts, namely expressives and declaratives. This suggests that either expressives and declaratives should be treated in a different way to other types of speech acts, or that entailment should be played down.

My fourth criticism of Searle's description is that the theory of indirect speech acts is not properly explained, indeed the important question of why in certain circumstances, indirect speech acts are preferred over direct speech acts is not even addressed. Currently, conversational analysis appears to provide us with a better account of why indirect speech acts exist (albeit as something else in that theory) and any theory of indirect speech acts that is to be taken seriously, must be able to challenge that account in a far more convincing way than Searle has been able to so far. In the theory I am about to present, I hope to be able to provide an account of why indirect speech acts are used which incorporates notions of politeness and uses pragmatic maxims.

My fifth criticism of Searle's approach is that although he mentions politeness in passing, no attempt is made to integrate it into his theory. My theory will include politeness in an attempt to explain indirect speech acts.

The sixth criticism of the existing theory concerns what I called "levels of abstraction". If speech act theory is correct, then it must provide us with an account of the ways in which we can use language. This however leads us into an immediate problem. If it is merely a description of ways in which we can use language then it is surely an atomistic account of language. If speech act theory can only tell us that we may use sentences in this way or that way, without any account as to how we put several speech acts together, or how, in a particular context within a particular language community, we deliver the speech act using an appropriate surface form, then it is saying nothing much about the performance of language which is what pragmatic accounts of language set out to explain.

What speech act theory is attempting to achieve is to describe the relations between a proposition and an utterance, and further with what intentions that utterance was made. This implies

that it must be able to say something about how the utterance is derived from the proposition and the intentions. Hence it must be able to say something about how we get from a proposition expressed as a thought to an utterance.

However in doing this, it is providing us with an intermediate level description, that is somewhere between the original thought and the final utterance. Obviously, a speech act cannot be a thought and it isn't an utterance, therefore, it must be some form of description of what we want to say that lies between the two. The traditional view is that the proposition is grouped with the other components of illocutionary force and an utterance is produced from this. But traditional speech act theory says nothing about how this happens and what is involved. Bach and Harnish (1979) however say something about the reverse process, i.e. how a speech act is extracted from an utterance. In my theory I intend to assume a priori that there is some intermediate descriptive level and that this can be used to frame the utterance. In other words, before producing the final utterance, we put together some form of description that expresses precisely what we want to say. Although I freely acknowledge that there is no psychological justification for this. Before proceeding to take a look at some specific speech act verbs, it is worth re-examining the seven components of illocutionary force to see exactly what will be left.

1. Illocutionary Point. This is the point or purpose of the act. My description will include a "presumed effect" which is a description of what the speaker is setting out to achieve by uttering the act in question. I have no real objections to the notion of an illocutionary point.

2. The degree of strength of the illocutionary point. I reject the view that this should lie as a point on a linear scale, it might be more appropriate to think of it as an adjacent area in an n-space hypercube. In other words it is very much a multi-dimensional measure. Hence it would not usually be appropriate to think of one act as being "stronger" than another. But two acts could be thought of as having broadly the same sort of purpose. The only linear relationships would be rather trivial, such as a

comparison between:

(2) I am angry.

and

(3) I am very, very angry.

3. The Mode of achievement. This is a component that I propose to do away with completely. Any acts that include a so called mode of achievement can either be explained in an alternative way or can be classified as "formal" speech acts, i.e., those that are associated with some sort of formal ritual, such as swearing an oath, or parties renouncing "Satan and all his works" - the rite leading up to baptism.

4. Propositional Content Conditions. Most of these will "come out in the wash". In my description of **predict** for example, I will include components that will include by necessity, the fact that I can only predict a future event, hence the propositional content condition will be built into the description. I will also be able to explain the fact that I cannot apologize for the law of Modus Ponens, because my description of **apologize** will include a description of exactly what I can apologize for.

5. Preparatory Conditions. The notion of a preparatory condition will be greatly enhanced and will not be restricted to presuppositions but will also include "cognitive states".

6. Sincerity Conditions. I propose to drop these completely, and hence by implication the seventh component, the degree of strength of the sincerity conditions. I have no objections to the idea that sincerity conditions should remain for "formal" speech acts, but they have no place in communicative speech acts. We can use pragmatic maxims to explain sincerity conditions. For example when asserting, we should have evidence for what we assert. And we only have to appeal to the maxims of quality and quantity to derive sincerity conditions. If we already have a maxim that exhorts us to say only what we believe to be true and what we have adequate evidence for, then there appears to be no need to have sincerity conditions.

3.2 Speech Acts As Schemas

My definition of a speech act will encompass what the speaker needs to have thought about before deciding to make an utterance communicating that speech act, (very roughly, the preconditions necessary to make an act). It will also define the action, i.e. what is to be communicated by the speech act. Further it will describe those things that the speaker needs to know in order to make sense of the responses that he is likely to receive after making an utterance communicating the speech act. Finally, it will have attached to it a set of strategies that the speaker needs in order to convert the speech act into the most appropriate surface form in order to utter a representation of the speech act.

I will illustrate what is required in each of these component parts using a very rough description of some common speech acts. For example, in order to make an assertion, presumably I have some evidence that leads me to believe that **P** may be true, or to make the hearer believe that **P** is true. I may also want to believe that it is something that is of interest to the hearer. The action will consist of communicating the belief that **P** is true. In asserting something, I hope that the effect will be that the hearer will accept **P** as true, but I have to be prepared for the possibility that the hearer may not believe **P** and this type of knowledge will enable me to decode the responses given by the hearer to my assertion. Finally, I have to decide on the most appropriate surface form for my assertion. I do this using various pragmatic maxims that direct me to interact with the hearer in a certain way. My choice will also be based on considerations such as politeness.

In the remainder of this chapter, I will develop the idea of a speech act description as a schema consisting of descriptions of what the speaker needs to know, believe etc. in order to make a particular type of speech act. I will develop schemas for several speech act types. I will also describe what it is that the speech act is supposed to achieve, i.e. what it is communicating to the hearer. Additionally, the schema will contain some descriptions of what the speaker needs to know in order to successfully interpret the possible responses to the speech act. I will develop the idea of strategies to produce the correct surface form in Chapter Six.

Schemas have already been used to represent speech acts, and in Artificial Intelligence models, and generally consist of a set of preconditions that are necessary for the speech act to be uttered. They will also include an effect, which is the effect that the speech act is presumed to have on the hearer. Finally, they may include a body, which may specify how the speech act is to be realised as an utterance, or may perhaps describe some mutual knowledge of speaker and hearer. I will first examine **assert**, and then go on to give some descriptions of other speech act verbs.

Assert is discussed by both Searle and Van der Veken and Bach and Harnish. Searle and Van der Veken use it as their primitive assertive act. It has been used in several Artificial Intelligence models using speech acts including Allen's model (Allen 1983). Allen describes assert in terms of the schema:

INFORM(S,H,P)
precondition: know(S,P)
effect: know(H,P)
body: MB(H,S,(want S (know H P)))

Assert is the act of speaker informing hearer of **P** with the precondition that speaker knows that **P** is true and the effect that hearer knows that **P** is true. The body of the speech act is the mutual belief that hearer and speaker both know that speaker wants hearer to know that **P**. The body of this act is a sort of representation of the communicative presumption (see the end of this chapter) that the speaker and hearer both understand what the speech act is used for.

Holdcroft and Smith (1990) propose a slight modification to this schema to include a discourse context:

INFORM(S,H,discourse-context,P)
precondition: bel(S,P)
not-committed(S,discourse-context,P)
effects: committed(S,discourse-context,P)
bel(H,P)

In this description of **assert**, the rather strong **know** is changed to **believe** and the schema includes the fact that within a particular discourse context the speaker changes from being not committed to **P** to being committed to **P**.

Bach and Harnish (op.cit) describe **assert** as:

> in uttering **e, S** asserts that **P** iff **S** expresses:
>
> i) the belief that **P** and
>
> ii) the intention that **H** believe that **P**."

Another author who has described **assert** is Wierzbicka (op. cit.p.321). Wierzbicka "semantically" analysed a large number of speech act verbs and although I do not agree totally with her analysis the description that she uses to encapsulate the meaning of each of the verbs is sufficiently interesting to merit further study, it is also not all that far removed from the description that I shall eventually employ. However before looking at Wierzbicka's description, the schemas given above need to be explained in more detail.

First of all, the description of **assert** given by Allen (above) has **INFORM(S,H,P)** as a sort of header followed by preconditions, effects and a body. The problem with using **inform** is that **inform** is itself a speech act verb and has to be ruled out for a primitive. The interpretation of **inform** that I intend to use is that it is a representation of an utterance act, hence a more neutral verb such as **utter** or **speak** would perhaps be more appropriate. For my description I will use **speak** in order to illustrate that it merely relates to the act of uttering and does not in itself carry any components of illocutionary force. Before going on any further it is worthwhile attempting to relate the other parts of the Allen schema to the components of illocutionary force. Firstly the preconditions: preconditions appear to be preparatory conditions, however it is questionable that in order to **assert** that **P**, I need to know or believe that **P** is true. Perhaps instead of **bel(S P)** it would be more in the spirit of an assertion to represent the speaker's belief about **P** as: **want(S bel(H bel(S P)))**. In other words, in making an assertion, I want the hearer to believe that I believe **P**. The effect of **assert** is that the hearer knows that **P** is true, this is again questionable as the hearer cannot be forced into believing that **P** is true simply because it has been asserted that it is (Allen was fully aware of this when formulating his schema, but defended it because it was adequate for the purposes that it was used for, Allen (1987)). The effects appear to relate to the illocutionary point, i.e. for **assert**, the illocutionary point is that the hearer should come to know that **P** is true.

This discussion has led us to a description of a speech act in terms of three component parts:

i) The communicative part - which specifies what information is to be provided in the utterance. For **assert** it is a statement that the speaker is going to make an utterance directed at the hearer with propositional content **P**.

ii) The preconditions - which specify what the speaker should know, want or believe in order to successfully utter the speech act.

iii) The effect - which is the desired result of the speech act.

The communicative part provides information that will be used to select the correct surface form (however it should be stressed that it is not the only thing that determines what the surface form will be). The preconditions are a set of states that I shall refer to as "cognitive states", which should be present in the speaker's mind before making the utterance that constitutes the speech act (I am not claiming here that this is a conscious process similar to: **I believe ... and ___, therefore, I will assert P**). The preconditions can also affect the eventual surface form of the utterance, but this is something that will be explored more fully when I come on to consider the problem of indirect speech acts. The effect is what the speaker desires to happen as a result of uttering the speech act.

At this point it is perhaps useful to look at Wierzbicka's definition of **assert** in the light of the above description.

The meaning of **assert** given by Wierzbicka (op.cit. p.321) is

1) I say: X

2) I imagine some people would say this is not true.

3) I can say that this is true.

4) I assume that people will have to think that it is true.

5) I say this because I want to say what I know is true.

1) is equivalent to the outline form of the utterance action:

SPEAK(S H P)

It is possible to translate 2) as

bel(S [Ex: bel(x ~P)])

in other words I am stating this as the belief held by the speaker that there are some people who might believe that **P** is not true.

The third condition:

I can say that this is true.

This could be represented simply as

bel(S P) or **bel(S poss(P))**

(Given the discussion above, this might be more accurate as:

want(S bel(H bel(S P))) which could be represented as:

+bel(S P)).

I take issue with the fourth of Wierzbicka's conditions and prefer instead to represent it as:

I assume that people may believe that it is true.

which is represented as:

bel(S poss(bel(H P)))

In other words speaker believes that it is possible that the hearer will believe **P**. If we leave Wierzbicka's original condition " I assume that people will have to believe that it is true" then it contradicts the previous condition that I imagine some people will say that it is not true. The final condition is:

I say this because I want to say what I know is true.

want(S INFORM(H [Ex: bel(S x)]))

This serves as the reason why the speaker wants to **assert** that **P** is true. It is of course a great simplification of why the speaker may wish to **assert P**, which may be for many reasons, such as to simply "start off" a conversation, but whatever that reason is, ultimately, the speaker wants to inform the hearer of something that he believes in. Of course, there is a danger that this simply becomes a circular definition, that the speaker asserts that **P** because he wants to assert that **P**. However it makes more sense if we compare it with the other (Searlean) categories of speech act. For example, when about to make a directive speech act, the speaker wants to know something or get the hearer to do something. Hence this condition might then be:

want (S INFORM(H S P))

or

want(S do(H P)).

In the case of commissives it might be:

want(S INFORM(S H will(do(S P))).

In other words, the speaker wants to inform the hearer that he will do P.

Wierzbicka has chosen to represent **assert** with some quite

complex statements that need further explanation given the relatively simple description by Allen above. Previously, our preconditions consisted solely of the fact that if I wanted to **assert** that **P** was true then I merely had to believe or know that **P** was true. But now we have some forms that appear to be saying something about the likely response of the hearer to the assertion.

Wierzbicka's first statement was entirely consistent with the outline utterance form used by Allen, however her second statement is something totally new. Statement 2) says that if I **assert** something then I have to expect that some people will not agree with me. This is not a necessary precondition for asserting that **P** in the sense that knowing or believing that **P** (or more accurately, wanting the hearer to believe that **P**) is but its purpose fits in with the idea outlined above of preparing the speaker for responses that don't fit in with expectations. In other words if I know that some people will disagree with me when I **assert** that **P** then it will help me to readily make sense of the responses. Hence 2) does not constrain possible responses to the utterance so much as explain them. Because of this I feel that 2) is an important constituent part of a description of **assert**. 3) is in keeping with the precondition given by Allen in his schema and so should not need much further explanation. 4) is a modified version of the effect of the speech act. I prefer the interpretation that

bel(S poss(bel(H P))) to

bel(H P)

because it is absurd to suggest that simply because speaker asserts that **P** that the hearer has to believe that **P**. 5) is an explanation of why the speaker made the utterance, though it is not clear to me that this is necessary as a component of **assert** but I will include it anyway.

Putting all of this together we can now arrive at a schema consisting of an action, effect and set of cognitive states:

Action: **SPEAK(S H P)**

Cognitive States: **1) bel(S [Ex: bel(x ~P)])**
2) +bel(S P)
3) bel(S poss(bel(H P)))
4) want(S INFORM(H [Ex: bel(S x)]))

Presumed Effect: **bel(H P)**

Note that I have called the effect the "presumed effect". The presumed effect is what the speaker hopes to achieve by the speech act. The preferred response by the hearer would be for him to acknowledge that he believes that **P** is true. However, this is not the only response possible. The hearer may not believe that **P** or may know **P** already. If we can formalise the possible responses to a speech act, then we will have gone a long way to stealing the theoretical ground from the conversational analysis approach to discourse, which talks in terms of preferred and dispreferred responses.

The description of the speech act in terms of cognitive states throws some light on two major problems: firstly the relationship of speech acts to discourse structure, and secondly, the representational issues of speech act theory. The cognitive states represented in order to make an assertion enable the speaker to accurately predict the likely responses to the speech act. In the case of **assert**, those responses are acceptance of **P**, challenging of **P**, and a possible statement that **P** was already known.

In the remainder of this chapter I shall describe four or five speech act verbs from each of the Searlean categories in terms similar to the above analysis of **assert**. There are many unanswered questions, some of which I hope to explore in the next three chapters.

In Chapter Four I will expand on the idea that the preconditions (or cognitive states) can in some way direct or explain the relationships between speech acts in discourse. If we take **assert** as an example; the preconditions in addition to being necessary preconditions are also states that explain how the hearer may react to the utterance. For example in **assert**, the hearer may not believe that **P** and the speaker is prepared for this. **Assert** is not a very good example in this respect because it is not very strongly cohesive in relational terms to other speech acts. In other words the utterance of an assertion does very little to constrain what must come after. Other issues that I will raise in Chapter Four are the possible existence of "universal states", i.e. states that relate to any speech act that also allow the speaker to predict possible responses by the hearer. A simple

example of this may be that the hearer may not like the way in which the speaker issues the utterance, e.g. the hearer may object to the speaker shouting.

In Chapter Five I will explore the effect that the speech act description has upon the surface form of the utterance. The method by which the utterance is derived from the speech act description will not be complete, because several other factors are involved in generation of the surface form including literary style which I consider to be beyond the scope of the thesis. However, as stated previously, I hope to show that not only does the action specified in the schema affect the surface form, but so do some of the cognitive states or preconditions, and this will be explored further in Chapter Six.

Chapter Six will include an explanation of indirect speech acts in terms of the descriptions given above. It will also show that the speech act descriptions are not rigidly cast in stone, and that there may be some variation. Additionally it will attempt to explain how pragmatic maxims affect the generation of surface forms, and will attempt to evolve a sort of "pragmatic logic" based on epistemic, modal and deontic operators. It will also consider politeness and its effects on the generation of surface forms. Much of the explanation of indirect speech acts will be based on politeness maxims.

Finally a note on the operators used in the next section to describe the speech acts and the syntax used. I have used epistemic operators such as **bel**, **want** and **know**. Belief logic has been formalised by Konolige (1985). Existential and universal quantifiers have been used in certain places along with traditional propositional operators. I have also used the modal operators **poss** and **necc**. For a simple introduction to modal logic see McCawley (1981) and Hughes and Cresswell (1968).

I have also used deontic operators in the cognitive state descriptions, **O** for obligation, **p** for permission and **f** to denote something that is forbidden (see Hilpinen (1971) for a description of deontic logic). I will examine the use of modal and deontic logic further in Chapter Four.

I have used a notation in which an operator (in lower case) is followed by its parameters enclosed in parentheses, e.g.,

bel(S P) means that the speaker believes that P.

necc(P) means that it is necessarily the case that P.

These operators may be nested:

necc(bel (S P))

A left parenthesis always follows the operator name and it is closed off at the end of its last parameter.

Action or speech act names are used in upper case, e.g.

SPEAK(S H P)

which means that the speaker produces a surface form expressing P. Quantifiers have been enclosed in brackets in order to describe their scope, e.g.,

[Ex: bel(x P)]

I will examine the use of the various logical operators and discuss the schematic use of the formulae in Chapter Four.

3.3 A description of Assertive Speech Acts

3.3.1 Claim

Searle and Van der Veken (op. cit. p.183) state that **claim** may be treated in exactly the same way as **assert**, however there are significant differences between them that need to be explored. **Claim** puts forward some view, like **assert**, but it is a more forceful act because the speaker in making a claim is expecting opposition and (presumably) has evidence to back up the claim. The conditions given by Wierzbicka (op. cit. p.324) are:

1) I say: X
2) I imagine that some people will say this is not true.
3) I think that I have good reason to say this.
4) I think that I can cause people to have to say that this is right.
5) I say this because I want to cause other people to think that it is right.

1) as before, can be represented as **SPEAK(S H P)**.

2) is also as before:

bel(S [Ex: bel(x ~P)])

The third condition concerns the evidence for making the claim. If in making a claim, the speaker has evidence to support it, we could say that the speaker knows of some **Q** from which it could be

inferred that **P**. A slightly weaker case of this would be that the speaker believes that **P** can be inferred from **Q**. This suggests the following logical form:

bel(S [EQ: know(S Q) & bel(S (Q ->P))])

4) is a statement of what speaker believes will happen as a result of making a claim. In making a claim I want the hearer to believe that **P** will be true, however from condition 2) I know that some people will not believe that **P**. Hence 4) can be looked upon as a statement of the perlocutionary effect **bel(H P)**. 5) is a statement of the desire to make the hearer believe that **P** is true and can be represented as:

want(S bel(H P))

So to summarise **claim** in schema form:

Action: SPEAK(S H P)

Cognitive States: 1) bel(S [Ex: bel(x ~P)])
2) bel(S [EQ: know(S Q) &
bel(S (Q -> P))])
3) want(S bel(H P))

Presumed Effect: bel(H P)

One of the main differences with **assert** is the existence of the evidence to support the claim. Because of condition 1) it will come as no surprise to speaker that the **claim** may be disputed. Condition 2) means that the hearer may dispute **Q** or even the inference that the speaker used to derive **P** from **Q**.

3.3.2 Assure

Searle and Van der Veken (op. cit. p.184) describe **assure** as:

> asserting with the perlocutionary intention of convincing the hearer of the truth of the propositional content in the world of the utterance.

Wierzbicka states that **assure** is also concerned with the removal of "worry" from the mind of the hearer. Assuring is specifically concerned with people (as contrasted with **confirm**, where one can confirm reports etc.), additionally **assure** means assuring someone of the truth or accuracy of something.

The conditions given by Wierzbicka for **assure** are:

1) I assume that you are thinking of something that you would want to be true.

2) I assume that you are not sure if it is true.

3) I think I can cause you to be sure that it is true.

4) I say: X

5) I say this because I want to cause you to be sure that the thing that you would want to be true is true.

4) as before is simply **SPEAK(S H P)**

There are two important elements to condition 1): firstly the assumption made by the speaker that the hearer is thinking about **P**. This comes from the context, the speaker infers by some process that the hearer is thinking about **P** and would like it to be true. Hence it can be represented as

bel(S want(H bel(H P)))

2) is connected with 1) and simply indicates that the speaker believes that the hearer may doubt whether **P** is true. Hence we can represent it as:

bel(S bel(H poss(~P)))

3) is the desired effect of the speech act verb, i.e. by assuring you of something I am attempting to cause you to believe that it is true, hence this condition refers to the presumed effect.

5) follows on from 3) in that the speaker wants to cause the hearer to believe **P**. I have chosen to simplify this to the fact that the speaker wants the hearer to believe that **P**. In a sense it is a justification for the speech act. It can be represented as:

want(S bel(H P))

So the whole schema for **assure** is:

Action: SPEAK(S H P)

Cognitive States: 1) bel(S want(H bel(H P)))

2) bel(S bel(H poss(~P)))

3) want(S bel(H P))

Presumed Effect: bel(H P)

As the presumed effect is that the hearer believes that **P**, the other possibilities are that the hearer believed that **P** anyway (the speaker's belief in 1) is incorrect), that the hearer had no interest in believing whether **P** is true or not (the speaker's belief in 1) is wrong but for a different reason). The hearer may

have previously believed **~P**, and now either still believes **~P**, or has suddenly had a change of heart and now becomes convinced of **P**.

3.3.3 Argue

Searle and Van der Veken (op. cit. p.184) define **argue** as differing from **assure** only in that the speaker gives supporting evidence for **P**.

Wierzbicka states that arguing implies a collective speech activity extended in time (Wierzbicka op. cit. p.125).

She gives the following conditions for **argue**:

1) I know that what you think about **W** is different from what I think about it.
2) I assume that if I am right you can't be right.
3) I think I can say some things which you will have to say are right.
4) I assume that you will understand that if you say that these things are right then you will have to say that I was right and that you were wrong.
5) I say (...).
6) I say these things because I want to cause you to have to say that I was right and you were wrong.

Assuming that neither Wierzbicka nor Searle are restricting their definition of **argue** to one-line logical arguments, then according to the analysis given in this thesis **argue** is not a speech act. The central argument in this thesis is that a speech act is performed in the context of a defined set of cognitive states and **argue** does not follow this pattern. Searle and Van der Veken state that **argue** requires supporting evidence and this implies some sort of inter-speech act relation. However, it is this very relation between speech acts that Searle denies exists (Searle 1979) using Ockham's Razor as an argument against those who would claim that there is a relational dimension to illocutionary force (Smith and Holdcroft 1990). The cognitive approach to speech act theory does not require such a relational dimension because each speech act is self contained within its cognitive states. But it is those very cognitive states that ensure that an argument takes place because of the incompatibility

of views between the two participants in the discourse. Hence the cognitive approach to speech act theory is simpler than the approach taken by Searle and Van der Veken, moreover, their approach is forced to admit of the existence of some sort of relational element between speech acts anyway.

Argue as an illocutionary force is equally nonsensical because the speaker is not always in a position to know that an argument is about to take place. Consider the following sequence:

A: Asserts P

B: Disagrees about P

A: (Somewhat taken aback): Provides supporting evidence for P.

The central thesis that will be developed is that the problem of relations between speech acts need not exist, because it is the cognitive states that effectively define the relationships between the components of the discourse, and not the speech acts on their own. This argument will be developed throughout this thesis. If we consider Wierzbicka's first condition for **argue** we can see that this cognitive state does not need to be present when presenting the argument (the initial statement). Speaker may **assert P** knowing that some people may disagree with it. On finding out that the **h**earer does disagree with it, his cognitive state will then include a representation of Wierzbicka's condition 1. The point quite simply is that arguments do not arise out of thin air. They generally have as a starting point an assertion made by one of the participants in the discourse, but at the time of making that assertion, the speaker may not have known that the hearer was going to disagree and therefore the illocutionary force of arguing can only be assigned post hoc. Because of this it requires of necessity a relation between the speaker's initial assertion and the hearer's disagreement with it, hence the notion of an illocutionary force for argue does not make sense.

3.3.4 Inform

Searle and Van der Veken (op. cit. p.185) state that:

> To **inform** is to **assert** to a hearer with the additional preparatory condition that the hearer does not already know what he is being informed of.

This rather simplistic explanation of the difference between **inform** and **assert** does not seem to encapsulate the essential difference between the two speech act verbs. It is quite possible that when the speaker asserts that **P** the hearer knows that **P** already. So that is not the crucial difference between the two. **Inform** first of all, appears to leave no room for doubts, in that after being informed that **P** the hearer has to believe that **P** is true. The difference it would appear from this is that **inform** carries with it some notion of authority on the subject of **P**. Not necessarily established or official authority, but an unspoken agreement between speaker and hearer that the speaker is an authority on the subject matter of **P**.

Wierzbicka then gives the following conditions for **inform**:

1) I assume that you want to know things about **X**.

2) I know something about **X** that I think you should know.

3) I assume I should cause you to know it.

4) I say (...).

5) I say this because I want to cause you to know it.

6) I assume that you will understand that this is not something that could be untrue.

7) I assume that I will cause you to know it by saying this.

1) is rather vague and I prefer something simpler, hence I have interpreted it as:

I assume that you want to know **P**

This is represented as:

bel(S want(H know(P)))

The second condition could simply be interpreted as the fact that speaker knows **P**, which would be

know(S P)

Additionally we could add something to represent the fact that the speaker believes that the hearer should know **P**. So an alternative version of 2) is

know(S P) & bel(S want(know(H P)))

3) is a statement that justifies the use of **inform** as a speech act and can be omitted from the final schema. I have re-interpreted 4) as

SPEAK(S H P)

5) can be interpreted as the fact that the speaker wants the

hearer to know **P** and hence can be represented as

want(S know(H P))

6) could be achieved by a mutual understanding that the speaker is an authority on the subject of **P**. As some sort of cognitive state this should not pose too many problems but it would be of significant difficulty in a computational model.

MB(auth(S P))

7) is a description of the presumed effect of issuing the speech act. Thus the description of **INFORM** becomes:

Action: SPEAK(S H P)

Cognitive States: 1) bel(S want(H know(P)))

2) know(S P)

3) want(S know(H P))

4) MB(auth(S P))

Presumed Effect: know(H P)

Because we have a speech act called **inform** it is now clear why **speak** is used. Possible problems may occur if the hearer does not want to know about **P**, or if the speaker is not perceived by the hearer to be an authority on **P**.

3.3.5 Conjecture

Searle and Van der Veken (op. cit. p.266) state that **conjecture** is to

> weakly **assert** that **P** while presupposing that one has at least some evidence for **P**.

Conjecture implies that the Speaker has at least thought about **P** but does not know the answer, effectively, it is based on some evidence but not enough to form a complete picture. My first condition is that the speaker wants to know **P** or what **P** is and hence can be represented as:

want(S know(P))

The second is that the speaker does not know **P**:

~know(S P)

The third is the fact that the speaker in making a conjecture is

effectively saying **P is possible** and hence it could be represented as:

SPEAK(S H poss(P))

Note that **poss(P)** does not mean that the speaker is tied to making an utterance of the format (...) is possible. It merely indicates that the final utterance will contain some element of uncertainty or at best tentative certainty.

The fourth is a statement that the speaker believes that **P** is possible:

bel(S poss(P))

The last condition is that the speaker wants the hearer to believe in the possibility that **P** and can be represented as:

want(S bel(H poss(P)))

The effect of the conjecture is to place it into context (as a possible focus for discussion). This gives us the following schema:

Action: SPEAK(S H poss(P))

Cognitive States: 1) want(S know(P))

2) ~know(S P)

3) bel(S poss(P))

4) want(S bel(H poss(P)))

Presumed Effect: incontext(P)

Possible effects and problems with conjecture are firstly that the hearer may have sufficient evidence to make a pronouncement on **P**. The hearer may feel that the speaker does not have sufficient evidence to make the conjecture, may ask what evidence the speaker has or even add possible evidence. The hearer may feel that the conjecture is of no significance (in effect challenging cognitive state 4).

3.3.6 Swear

To **swear** that **P** is an attempt to make the hearer have to believe that what we are saying is true often by calling upon something that is sacred to the speaker as a witness to the truthfulness of the statement. Although this could be seen as another type of speech act, I have chosen to omit it from my list

of speech acts and to classify it under a list of speech acts that I intend to call Formal Speech Acts. It causes no problems for the cognitive state approach, except that there is an "external" element to the speech act, namely calling upon a deity or some other sacred object.

3.4 Commissive Speech Act Verbs

3.4.1 Promise

This is the first of the speech acts that fall into the commissive group. Commissive verbs involve an obligation on the part of the speaker, and one of the measures used by Searle and Van der Veken for commissive verbs is the degree of strength of the commitment (Searle and Van der Veken op. cit. p.192) This linear measurement needs close scrutiny.

When we **promise** to do **P**, we are making a commitment to undertake **P**, even if we **promise** that someone else will do **P** (Boguslawski 1983 and Wierzbicka op. cit. p.205) we are still making an undertaking to see to it that that person will do **P**. The effect of **promise** is to cause the hearer to believe that the speaker will undertake to do **P**. Additionally the obligation itself is such that what the speaker is doing is to place his credibility on the line (Verscheuren 1983,p.630). Wierzbicka gives the following conditions for **promise**: (Wierzbicka op. cit.p.205).

1) I know that you want me to do **P**.
2) I know that you think that I may not do it.
3) I want to do it because you want me to do it.
4) I say: I will do it.
5) I want us to think that if I don't do it, people will not believe anything that I say I will do.
6) I say this, in this way, because I want to cause you to be able to think that I have to do it.

It seems reasonable that when I make a promise I have some reason to believe that you want me to carry out the promised action. Hence 1) can be represented as

know(S want(H do(S P))

It also seems reasonable that I am making a promise to do **P**

because I have reason to believe that you may think that I won't do **P**, hence 2) can be represented as

know(S bel(H poss(~do(S P))))

3) is more problematical, I may promise to do something even though I don't particularly want to do it. 3) appears to be an attempt to explain the reason for the promise, but I may make the promise simply because I ought to. There may be a feeling that I am obliged to carry out the action. This tentative belief of obligation could be represented as

bel(S poss(O(do(S P))))

where **O(...)** is the deontic obligation operator.

Perhaps 4) should be a simple representation of the fact that **P** will be carried out in the future:

SPEAK(S H will(do(S P)))

5) is an attempt at explaining the obligation placed upon the speaker by the promise, but I prefer to represent this as an effect of the speech act that the speaker is now under an obligation to do **P** (or see that **P** is done). Hence we can represent it as an effect:

bel(H O(do(S P)))

6) is now in effect redundant. I also believe that it is necessary that the speaker believes he is capable of carrying out his **promise**. Hence we need an extra cognitive state:

bel(S poss(do(S P)))

This gives us the schema for **promise**:

Action: SPEAK(S H will(do(S P)))
Cognitive States: 1) know(S want(H do(S P)))
2) know(S bel(H poss(~do(S P))))
3) bel(S poss(O(do(S P))))
4) bel(S poss(do(S P)))
Presumed Effect: bel(H O(do(S P)))

Possible problems with **promise** are firstly that the hearer may question the speaker's veracity or commitment to carry out the promised action. A violation of condition 1) only occurs if the speaker mistakenly comes to the conclusion that the hearer wants him to do **P**. The hearer may be slightly offended because the

speaker had to **promise** to do **P**, although the hearer never doubted that the speaker would do **P**. The speaker may not want to do **P** but might make the **promise** anyway. Finally, the hearer might question the speaker's ability to carry out **P**.

3.4.2 Consent

In her description of **consent**, Wierzbicka (op. cit. p.112) spends some time comparing **consent** and **agree**, stating that:

> consenting is dependent upon the speaker's goodwill

whereas **agree**:

> [takes place] on an equal basis

However, as Wierzbicka later states (op. cit. p.113), although **consent** and **permit** form two comparable speech acts, the difference between the two is that consenting is active in that it takes place in response to a particular request, whereas **permit** may take place without the knowledge that the hearer is actively seeking permission. It is curious that Searle and Van der Veken in their taxonomy of speech acts include **consent** as a commissive speech act whereas **permit** is included in the list of directives.

Additionally, consenting involves effectively stating that **OK, I want it to happen**, whereas **permit** involves simply stating **OK, I don't mind if it does happen**. Wierzbicka gives the following conditions for **consent**:

1) I know that you want **X** to happen because you have said so.
2) I assume you think you can't cause it to happen if I don't say that I want it to happen.
3) I say: I want it to happen.
4) I say it because I want to cause the thing to be able to happen that you want to happen.
5) I assume that no one other than me could cause it to be able to happen.

1) can be simplified to the claim that the speaker knows that the hearer wants **P** to happen:

know(S want(H P))

2) is in a sense an understanding that the speaker has that the hearer knows that **P** is not permitted. In other words the speaker believes that the hearer believes that **P** is not permitted. Hence it can be represented as:

bel(S bel(H ~p(P)))

Note that here **p** is used as a deontic operator and has nothing (or at least very little) to do with the speech act **permit**.

3) may therefore be thought of as a statement that **P** is permitted with the implied sense that the speaker wants the hearer to do **P**.

SPEAK(S H want(S do(H P)))

4) is a statement of the desired effect of the speech act namely that the hearer now knows that **P** is permitted and that furthermore the speaker wants the hearer to do **P**. 5) refers to the fact that ordinarily consent relates to something personal about the speaker and I have chosen to omit it. This gives the following schema for **consent**:

Action: SPEAK(S H want(S do(H P)))

Cognitive States: 1) know(S want(H P))

2) bel(S bel(H ~pP))

Presumed Effect: know(H pP) & know(H want(S do(H P)))

It is possible, though because of the nature of the speech act that the hearer may not have wanted to do **P**. Interestingly, the hearer may question whether the speaker is really sure about giving permission to do **P**. The hearer may have believed that he was permitted to do **P** anyway. Finally, the hearer may question whether the speaker really wants the hearer to do **P**.

3.4.3 Refuse

A refusal is a fairly blunt way of saying **no, I will not do it**. Searle and Van der Veken (op. cit. p.195) suggest that **refuse** is the illocutionary denegation of **consent**. It is like **consent** in that it is a response to an actual or implied request.

Wierzbicka (op. cit. p.94) gives the following conditions for **refuse**:

1) I know that you want me to do **X** (because you said so).
2) I think you assume that I will do it.
3) I say: I don't want to do it and I will not do it.
4) I assume that I don't have to do it if I don't want to.
5) I say this because I want you to know it.
6) I assume you understand that **X** will not happen because of that.

1) is fairly straightforward and can be represented as:

know(S want(H do(S P)))

I am not wholly convinced that 2) is necessary but it can be represented as a belief held by the speaker that the hearer believes that the speaker will carry out **P**

bel(S bel(H will(do(S P))))

3) therefore is:

SPEAK(S H ~do(S P))

We know that a refusal relates to an action that the hearer wants the speaker to perform, therefore we have **~do(S P)**. This utterance logical form merely provides guidance that the surface form should imply in some way that the speaker will not be carrying out the action. It need not be explicit, it could for example come out as: **I'm very sorry** or **I'm afraid that won't be possible.**

4) can be simply represented as

bel(S ~O(do(S P)))

5) is a statement of the desired effect of the speech act i.e. that the speaker wants to communicate the fact that he will not be carrying out **P**.

This gives us the following schema for **refuse**:

Action: SPEAK(S H ~do(S P))
Cognitive States: 1) know(S want(H do(S P)))
2) bel(S bel(H will(do(S P))))
3) bel(S ~O(do(S P)))
Presumed Effect: know(H ~(do(S P)))

If the refusal is always in response to a request then condition 1) is perfectly clear. However for condition 3) the hearer could respond by pointing out that the speaker has to do **P**. Additionally, the hearer could attempt to change the speaker's mind.

3.5 Directive Speech Act Verbs

We now come to the class of speech acts described by Searle (1979) as directives. **Direct** is described by Searle and Van der Veken (op. cit. p.198) as the primitive directive act. However Wierzbicka (op. cit. p.42) sees it as a complex of different acts. Firstly she describes it as being "somewhere between requesting and ordering" in that by directing the speaker wants the hearer to do something, and expects him to do it without any conflict, and yet at the same time is not making an order that the hearer carry out the act. In a sense it is co-operative behaviour. Her second meaning of direct is akin to giving directions, and, third which is really a variant on the second seeks an explanation for why directions are sometimes given as imperatives. I choose not to include the second and third explanations of **direct**, because it usually relates to a whole sequence of acts, not just one. Hence I would include **direct** when used for giving instructions in the same basic category as argue, i.e. a structure and not a speech act.

This leaves only Wierzbicka's first description of **direct**. Because it appears to imply a formal relationship between speaker and hearer, namely that in issuing a directive, the speaker has a permanent institutionalised position of authority I have decided to include it in the list of formal speech acts.

3.5.1 Request

Searle and Van der Veken (op. cit. p.199) describe REQUEST as:

> a directive illocution that allows for the possibility of refusal.

Smith (1970,p.123) describes **request** as:

> a more polite word for the same thing as **ask**.

At the same time he goes on to point out that there is often an implied sense of authority that makes it akin to a command. Wierzbicka echoes this using the example:

(4) Passengers are requested to extinguish their cigarettes.

However I disagree with this analysis. My analysis of the above is that an order is an order however it is dressed up. A command with the surface form of a request is explained by considerations of politeness which I feel should be an integral part of speech act theory. In the particular example passengers are required to extinguish their cigarettes; it is a safety requirement of what is presumably an airline, therefore there is no possibility of refusal. This is a topic that will be explored further later on in the thesis.

Wierzbicka gives the following conditions for **request**:(op. cit. p.51)

1) I say: I want **Y** to happen.
2) I know that **Y** cannot happen if someone (**X**) doesn't do something to cause it to happen.
3) I say this because I want to cause **X** to cause **Y** to happen.
4) I don't want to say that **X** has to do it.
5) I assume that **X** will understand that I have a reason to say that I want **Y** to happen.
6) I assume that **X** will cause **Y** to happen.

I encode 1) as:

SPEAK(S H want(S do(H P)))

In 1) the speaker is conveying a want to the hearer, namely that the hearer carry out action **P**. Whether this is expressed directly as in **I want you to take out the rubbish** or whether it is expressed implicitly or indirectly is determined by factors other than just the utterance's logical form.

2) is a statement to the effect that I know that if you do not carry out action **P**, then it won't get done. This can therefore be expressed as the knowledge that if Hearer doesn't do **P**, then not **P** will obtain.

know(S ~(do(H P)) -> ~P)

3) is a statement of the desired effect of the speech act, which is **want(S do(H P))**. Hence, the presumed effect is that the hearer knows that the speaker wants him to do **P**. i.e.

know(H want(S do(H P)))

4) can be expressed as the fact that the speaker does not want the hearer to believe that he has to do **P** (note that this condition of Wierzbicka's is in the spirit of a request, but runs contrary to her argument given above, that a request has an implied sense of authority).

~want(S bel(H O(do(H P))))

5) is a statement of the reason for arriving at the cognitive states held by the Speaker, and therefore does not need to be represented. 6) can be represented as:

bel(S poss(do(H P)))

This gives the following schema for **request**:

Action: SPEAK(S H want(S do(H P)))

Cognitive States: 1) know(S ~do(H P) -> ~P)

2) ~want(S bel(H O(do(H P))))

3) bel(S poss(do(H P)))

Presumed Effect: know(H want(S do(H P)))

Possible effects of **request** include firstly that the hearer may ask the speaker to do **P** himself. Secondly, the hearer may refuse or decline to do **P**. It is even possible that hearer may defer **P** in some way by promising to do **P** at a later date, or even nominating someone else to do **P**. I shall look at **request** in much greater depth particularly in Chapter Six, where I shall consider the various indirect forms of request that are used.

3.5.2 Tell

Both Searle and Van der Veken (op.cit. p.200) and Wierzbicka (op.cit.p.41,286) seem to be in agreement that there are two different meanings of **tell**: firstly it can be used in the sense of telling someone to do something and secondly in the sense of telling a story. The easier of the two meanings is probably the first. This meaning is similar to **ask** and **request** in that it is a way of expressing the fact that the speaker wants the hearer to do something. The following are examples of **tell**:

Wierzbicka gives the following conditions for **tell**: (op.

cit.p.41)

1) I say: I want you to do **X**.

2) I assume that I can say this to you.

3) I say this because I want to cause you to know what you should do.

4) I assume that you will do it because of that.

1) can be represented quite simply as:

SPEAK(S H want(S do(H P)))

2) I have chosen to represent as:

bel(S poss(INFORM(S H want(S do(H P)))))

This is another example of where **inform** is used inside another speech act definition. Here, once again it is intended to denote the generic act of informing, which could be assuring, reporting etc.

3) is a statement of the desired effect of the speech act. The difference between **tell** and **request** is that the speaker is not giving the hearer the option to say no, therefore the presumed effect is:

know(H want(S do(H P))) & know(H ~want(S ~do(H P)))

4) can be weakened to:

bel(S poss(do(H P)))

This gives us the following schema for the first version of **tell**:

Action: SPEAK(S H want(S do(H P)))
Cognitive States: 1) bel(S poss(INFORM(S H want(S do(H P)))))
2) bel(S poss(do(H P)))
Presumed Effect: know(H want(S do(H P))) &
know(H ~want(S ~do(H P)))

Possible problems with **tell** include the hearer questioning the speaker as to whether he really wants him to do **P**, or simply, refusing to do **P**.

As pointed out by Wierzbicka, (op. cit. p.286) the second, meaning of **tell** has as much to do with the pleasure of hearing something as it does with knowing as exemplified by the sentence, **Tell us "The Rime of the Ancient Mariner"**. This form of **tell** is not a communicative speech act as it does not involve communicating any state to the hearer. The speaker is merely

reciting for the hearer's pleasure and it is thus more akin to an action of a narrative type.

3.5.3 Require

Searle and Van der Veken (op. cit. p.201) suggest that **require** differs from telling someone to do something only in that it carries with it a greater degree of strength, and that there is an additional preparatory condition that it needs to be done. **Require** appears to imply an element of obligation, but the speaker has no authority over the hearer. A good example of its use is in the "unless" letter that precedes a summons. E.g. "You are required to pay the outstanding balance within 28 days or we shall initiate proceedings to recover the above mentioned amount without further notice." Here the agent issuing the threat to take legal action is notifying the recipient of his obligation, but not actually ordering him to pay, as he has no authority to do so. Wierzbicka gives the following conditions for **require**:

1) I want something (**X**) to happen.

2) I know it cannot happen if you don't cause it to happen.

3) I say: I want you to cause it to happen.

4) I assume you have to do it.

5) I say this because I want to cause you to do it.

6) I assume that you will do it.

I shall make 1) slightly more specific:

want(S do(H P))

2) becomes

know(S ~do(H P) -> ~P)

3) is simply

SPEAK(S H want(S do(H P)))

4) becomes

bel(S O(do(H P)))

5) and 6) may be combined into a logical form that states that if the speaker believes that the hearer believes that the speaker wants him to do **P**, he will do **P**.

bel(S bel(H want(S do(H P)))) -> do(H P)

This gives us the following schema for **require**:

Action: SPEAK(S H want(S do(H P)))

Cognitive States: 1) want(S do(H P))

2) know(S ~do(H P) -> ~P)

3) bel(S O(do(H P)))

4) bel(S bel(H want(S do(H P)))) -> do(H P)

Presumed Effect: do(H P)

The obvious problem with **require** is when the hearer does not do **P**, after which the speaker presumably is forced to institute the sanction behind the obligation which would vary according to the speech act. It is possible that the hearer could inform the speaker that **P** has already been done, which perhaps necessitates an extra condition, namely that **bel(S ~P)**.

3.5.4 Permit

A good example showing the distinction between **permit** and **allow** is given below. The person who permits something is not concerned so much with the action itself as its effect on something.

> The nurse allowed the visitors to remain beyond the hospital visiting hours, although it was not permitted. (Hayakawa 1969,p.441).

Wierzbicka gives the following conditions for **permit**:

1) I assume that people think that they can't cause things to happen in **Y** if I say that I don't want them to happen in **Y**.
2) I assume that some people (someone) will want to do **X** in **Y**.
3) I assume that they will think that they can't do it if I say I don't want them to do it.
4) I say: I don't want to say that I don't want them to do it.
5) I say this because I want to cause those people to be able to do it.
6) I assume people would understand that I have reasons to say it.

I have chosen to interpret 1) on a more personal basis, and more simply as: The hearer believes that **P** is forbidden which is

bel(S bel(H fP))

I have chosen to alter 2) slightly so that it becomes

bel(S poss(want(do(H P))))

In other words, the speaker believes that the hearer may want to do **P**.

3) can be interpreted as: Unless I state that **P** is permitted, the hearer will believe that **P** is forbidden, which is

bel(S ~INFORM(S H pP) -> bel(H fP))

4) is

SPEAK(S H pP)

5) is a statement of the desired effect of the speech act.

6) does not really seem relevant for the speech act. This gives us the following schema for **permit**:

Action: SPEAK(S H pP)
Cognitive States: 1) bel(S bel(H fP))
2) bel(S poss(want(do(H P))))
3) bel(S ~INFORM(S H pP) -> bel(H fP)
Presumed Effect: know(H pP)

If **permit** were used by the speaker in an area outside his scope of authority, then it could be questioned by the hearer. The hearer may inform the speaker that he doesn't want to do **P** anyway, or may acknowledge the fact that he has been allowed to do **P**.

3.6 Declarative and Expressive Speech Act Verbs

Declare is the first of the declarative acts described by Searle and Van der Veken (op. cit. p.205). I prefer to call these "formal" speech acts. Speech acts that appear in Searle's declarative category generally have some extra linguistic dimension. They can only be used in very specific circumstances, examples of these are **baptise** or **excommunicate**.

Expressive speech acts on the other hand are a rather mixed group of acts. Some of them appear to be largely formulaic, such as greetings, but others do seem to have a function similar to the other communicative speech acts. Because of their nature, i.e. that they express feelings such as regret, it is rather difficult

to define them in the same way as has been done for the other types of communicative speech act. However, it is still possible to explore their use within discourse.

3.7 Evidence to Support the Cognitive Thesis in Child Language

Evidence to support the cognitive state theory may perhaps be found from an examination of the way children develop their use of speech acts, although there are several interrelated factors that come into play here. Additionally, an investigation into the use of speech acts in certain disorders such as autism may also help to support the cognitive state theory, however the latter is beyond the scope of the thesis.

I was alerted to the possibilities of finding evidence in children's language from the performance of my own son as he developed the use of a few simple speech acts. He developed at an early stage the ability to communicate a want or need through the use of directives. For example **milk** when issued in the absence of milk was used as a command. The tone used was very different to the one used when pointing to milk. Such wants are very important to a small child, and it is not difficult to see how a simple representation of this want can be translated into language. On the other hand, he unfortunately picked up the word 'Jesus' used by myself in the act of exclaiming or blaspheming. But no one would seriously argue that in doing so, he is also blaspheming. The reason for this is quite simple, he does not know that he is taking the name of a deity in vain. This simple explanation supports the cognitive state thesis, but of course it could be moulded to support other views as well.

Bock and Hornsby (1981) looked at the development of directives in children between the ages of 2.5 and 6.5, in particular the difference between the use of **ask** and **tell** and they found that from an early age, children were more polite when asking than telling. In particular, they tended to use interrogatives for asking and imperatives for telling.

Carrell (1981) examined children's understanding of indirect requests in the age range 4 to 7 and discovered that they were

able to understand a wide variety of indirect requests, and that there is a general developmental pattern of acquisition. He also found that children found interrogative forms more difficult than declarative forms. Furthermore the relationship between the request type and the ease of comprehension is strikingly similar for children and adults (Carroll op. cit. p.344).

Astington (1988a,1988b) carried out a study into children's use of commissive speech acts. Dore (1977) had noted that commissives do not appear in pre-school infants and it was suggested that this may be due to the fact that in society commissives are not necessary in pre-school infants, because they have not acquired the sufficient autonomy to make personal commitments. This view seems to me to be somewhat of a simplification. Consider the sequence:

(5) P: Will you clear up the toys?

(6) C: Yes.

(7) C: (Starts to clear up toys).

It was suggested by Astington (1988a, p.418) that this could be a commissive, or it might simply be a statement of intention, or even just denote the future. But it is worth noting that the components of commissives include both statements of intention and future components, so this might be regarded as a rudimentary commissive.

One of the most interesting findings of Astington is that the explicit performative commissive (such as **promise**) does not come until later, even though the concept of promising appears to have been mastered before then. This appears to provide evidence for the cognitive state approach, because the example given above suggests that some of the cognitive states that compose commissives such as **promise** have been mastered but the whole thing is not put together until later. It also gives credence to the idea that cognitive states exist as an intermediate level.

Hirst and Weil (1982) examined the acquisition of the epistemic and deontic meaning of modals in children between the ages of 3 and 6.5. Their general finding was that the greater the difference in strength between the modals the earlier the difference was appreciated. They stated that modal expressions appear as early as 2.5, and that children first distinguish modals from factuals before any differentiation within the class of

modals occurs. Furthermore they found that modals of possibility (**may** and **should**) are distinguished from **is** before **is**, and the modal of necessity is separated. They also noticed that the comprehension of deontic modals lagged behind the comprehension of epistemic modals.

Le Bonniec (1974) suggested that an understanding of necessity and impossibility doesn't come until around the 11th or 12th year. This finding appears to be backed up by Coates (1988), who has shown that at the age of 8 children only have a rudimentary understanding of modal meaning and that at 12 it will still "not be isomorphic" with the adult system. The implication of these findings is that speech acts containing modals are considerably more difficult than those that do not contain them.

Abbeduto and Rosenberg (1985) examined children's knowledge of the presupposition of **know** and other cognitive verbs and their findings indicate that the factives such as **know**, **forget** and **remember** are mastered at 4, whereas **believe** is not properly mastered until 7.

Reeder (1980) looked at the emergence of illocutionary skills from the standpoint of Searle's theory and obtained results that were not entirely supportive. Reeder concentrated on attempting to see whether contextual considerations can be used to distinguish requests in 2.5 to 3 years olds. The findings were that the ability to use contextual cues develop unevenly across illocutionary acts. A finding which would not be out of line with the cognitive state approach. One of the more interesting findings from the cognitive state point of view was that of Gruber (1975) who noted that in the early stages, 'see...' was used as an indication marker and 'want...' was used as a demand marker.

To summarise, if we re-examine the simple 'commissive'

(5) P: Will you put away the toys?

(6) C: Yes

(7) C: (puts away the toys).

what is interesting about this sequence is that it exhibits both the direct and indirect responses to the speech act. This is a possible hint at how and why indirect speech acts have emerged. Furthermore even if we do not accept the above as a commissive it contains primitive precursors of the commissive in the form of presupposed cognitive states (i.e. the intention to do an act and

future indication). It is noteworthy that the performative use of **promise** does not come until later. If the same thing occurs for other more 'difficult' speech acts, then the explanation can be given in terms of difficulties in mastering the cognitive state components.

Further evidence comes from deontics which are not mastered until later in the child's development. Deontics presuppose complex cognitive states of obligation etc. which are difficult to master from an early age. Although the evidence presented is far from conclusive, it does at least give some credence to the cognitive state view.

3.8 What is the Cognitive State Hypothesis?

In this chapter I have put forward a theory about speech acts (or more specifically about speech act verbs). It is still possible to think of a speech act in terms of an illocutionary force, but what that illocutionary force actually consists of needs to be stated.

Searle originally conceived of seven constituent parts of an illocutionary force and realistically only two of those remain in the new theory, namely the illocutionary point and the preparatory conditions. The illocutionary point is still the point or purpose of the speech act, but it is now more focused in that we can specify the illocutionary point in terms of its effect upon the context. For example, the illocutionary point of a **request** is to make it known that the speaker wants something from the hearer and this want forms part of the context as soon as the speech act is uttered. The preparatory conditions are a small set of cognitive states, some or all of which must be understood and be present in the speaker's mind immediately before making the utterance. This needs to be qualified, firstly because I have stated that only some of the states need to be present in certain cases. I will elaborate on this in coming chapters, but for the time being it will suffice to say that the cognitive states for a particular speech act should not be thought of as being cast in stone.

Secondly I state that the cognitive states should be present in the speaker's mind immediately before making the utterance. By

this I do not intend that this is some conscious process, the cognitive states and an understanding of them form the meaning for the speech act verb. Hence, when correctly uttering a speech act the speaker knows what effect these cognitive states should have on the context. The perlocutionary effect remains more or less the same.

The action part of the speech act, acts together with the cognitive states to allow the speaker to select the appropriate utterance for a particular proposition. However, this process has to take account of other factors, such as linguistic style, hence the translation process cannot be exactly specified. But the implication is that both the utterance logical form and the cognitive states will have an effect upon the final utterance.

So making a speech act is not only stating a particular proposition, but also making public a set of cognitive states which will be added to the context. The relational aspect of speech acts revolves around the fact that certain cognitive states have been made public.

There are many unanswered questions of which the following immediately come to mind: firstly how is an utterance built up from the action specified in the schema, plus the set of cognitive states? How, given an utterance can the hearer recognise which speech act is being uttered (the hearer will need to be able to decode the cognitive states in some way)? Where do indirect speech acts and politeness come into all of this? I hope to at least shed some light on these questions, but before then it is necessary to re-examine the existing speech act theories in light of the cognitive state hypothesis in order to see whether they are themselves cognitive state hypotheses.

Now it is worth standing back to see how the cognitive state hypothesis relates up to theories of human communication. An early model of linguistic communication was called the message model (see Akmajian, Demers and Harnish 1988 for a fuller description of the message model). In the message model, the speaker acts as a "transmitter", the hearer acts as a "receiver", and the vocal-auditory path (the sound wave) is the relevant channel. The speaker encodes some message **M** which is then transmitted, and decoded by the hearer who interprets it as message **M**. In this way private ideas are transmitted by public sounds. This model goes

back to John Locke (1691), but it is not without its problems (Akmajian et.al. op. cit. p.395).

Firstly, the expressions that are transmitted may be linguistically ambiguous and it is up to the hearer to determine which one is the correct interpretation. Disambiguation is a process which, as far as the message model is concerned is not governed by any principles, but it is by no means a random process. Additionally, the message model does not take into consideration the fact that a message contains information about particular things being referred to, something that the hearer will need to interpret correctly if he is to understand the message correctly. Also, there is no account of the speaker's intentions, which is not uniquely determined by the message itself, and tied in with this is the fact that we often communicate non-literally. Clearly, speech act theory in its own right has made attempts to solve these problems.

Bach and Harnish (1979) attempted to solve the problems that defeated the message model, and their model is called the inferential model which deserves close study. Firstly, linguistic communication is possible because the speaker **S** and hearer **H** share a system of inferential strategies leading from the utterance of expression **E** to **H**'s recognition of **S**'s communicative intent. This at least is an idea that is shared by the cognitive state model. The inferential model makes the following presumptions:

1. The Linguistic Presumption (LP). The hearer is presumed capable of determining the meaning and the referents of the expression uttered. The cognitive state model must also make this assumption.
2. The Communicative Presumption (CP). The communicative presumption is that the speaker is speaking with some identifiable communicative intent. This assumption is also made by the cognitive state model.
3. The Presumption of Literalness (PL). This is the shared belief that unless there is evidence to the contrary the speaker is speaking literally. There is no objection to this either in the cognitive state model.
4. Conversational Presumptions (ConPs). In the course of any exchange, the speaker **S** and hearer **H** presume that at any point in the exchange the following principles hold:

Relevance: Speaker's contribution is relevant to the exchange at that point. Relevance is partially explicable in terms of the presupposed cognitive states and the desired effect of some speech act. It may also be used to determine indirection.

Sequencing: Speaker's contribution to the talk exchange is of a communicative type appropriate to that stage of the exchange. Once again this is not at odds with the cognitive state model, except that the cognitive state model is going to make an attempt to explain why particular types of exchanges are appropriate at particular points by reference to the presupposed cognitive states.

Sincerity: Speaker's contribution to the exchange is sincere in that **S** has the attitude expressed. On the other hand, I would like to play down the importance of this somewhat in the cognitive model. On the one hand, sincerity is necessary for the interpretation of utterances, because the hearer needs to assume that the speaker has certain beliefs or wants for a particular speech act. On the other hand, however, to rely on it too much might rule out acts whereby, for example, the speaker wants the hearer to believe that he believes **P**, when in fact he believes not **P**.

Quantity: Speaker's utterance provides just the required amount of information, not too much, not too little. Once again the cognitive state model goes along with this presumption. Additionally, although it does not form part of the cognitive state model as such, Allen's plan based recognition system is a step in the direction of helping us to understand the mechanisms that underlie this assumption and in fact presupposes the cognitive model.

Quality: Speaker has adequate evidence for what is stated or presupposed. This is also an assumption of the cognitive state model.

Truthfulness: Speaker attempts to make the utterance true. I would also like to play down the importance of this because it effectively rules out lies and deceit, which do after all form a part of communication.

Manner: Speaker speaks clearly that is, avoids ambiguity, avoids obscurity of expression, avoids unnecessary wordiness etc. The cognitive state theory will also make this assumption but will not have much to say about it.

Politeness: Speaker in speaking. behaves politely, that is **S** is not offensive, abusive, vulgar etc. As well as making this assumption, the cognitive state theory will have a great deal more to say about the role of politeness when examining the relationship between surface forms and speech acts.

Morality: Speaker in speaking behaves ethically, that is, **S** does not reveal information that he ought not reveal, he does not ask for information he ought not or does not direct hearer to do something that **H** does not wish done etc. This will have only a small part in the cognitive state model.

The implications of this comparison between the cognitive state model and the inferential model are clear; the cognitive state model, by and large is not at odds with the inferential model, on the contrary it is an attempt to fill in detail that is missing from some areas of the inferential model.

The inferential model also includes a description of the strategy used to recognise an utterance. It consists of four parts:

1. The Direct Strategy.

   Step 1. The hearer **H** recognises what expression, **E** the speaker **S** has uttered.

   Step 2. Hearer recognises which meaning of **E** is intended

to be operative.

Step 3. Hearer recognises what speaker is referring to.

Step 4. Hearer recognises what speaker is intending to communicate directly, if speaking literally.

2. The Literal Strategy.

Step 5. The hearer recognises that it would be contextually appropriate for speaker to be speaking literally.

Step 6. Hearer recognises what speaker is intending to communicate literally (and directly).

3. The Non-Literal Strategy.

Step 5′. Hearer recognises that it would be contextually inappropriate for speaker to be speaking literally.

Step 6′. Hearer recognises what speaker is communicating nonliterally (and directly).

4. The Indirect Strategy.

Step 7. Hearer recognises that it would be inappropriate contextually for speaker to be speaking merely directly.

Step 8. Hearer recognises what speaker is also intending to communicate indirectly.

This forms the inferential model for speech act recognition. The cognitive state model is not necessarily at odds with this, however it would attempt to fill in more detail as to how some of the steps listed above are actually carried out.

It now seems appropriate to summarise exactly what the cognitive state model is and what aspects of the pragmatic presumptions need to explained in more detail. Firstly the linguistic presumption (LP), communicative presumption(CP) and presumption of literalness(PL) are also presumptions held by the cognitive state model. The principal area where the cognitive state model attempts to expand upon the inferential model is in the description of the Conversational Presumptions.

Relevance is of importance, and an assumption of relevance is necessary for the cognitive state model, but it is not expected to reveal much more about what relevance actually is other than in

terms of cognitive states i.e., given a speech act that expresses some cognitive state, the model will have something to say about responses to that speech act in terms of cognitive states, but not in terms of the propositional content and how it is relevant to the preceeding utterance. Generally, it will use a relevance relation R between two utterances P_1 and P_2. On the other hand the cognitive state model will attempt (in Chapter Four) to explain sequencing relationships between utterances, but in doing so it will recognise that larger structural elements of discourse are not explainable by speech act theory alone.

Sincerity is an issue where the cognitive state model is slightly at odds with the inferential model, however I hope to say more about sincerity conditions when looking at formal speech acts. Quantity is a presumption that is interesting in its own right, because of its possible explanation by plan based models, but it will not form a significant part of the cognitive state theory.

Quality is also a presupposition of the cognitive state model but will not be explored much further. Truthfulness is a presumption that I will examine when looking at formal speech acts. Manner is assumed by the cognitive state model as is politeness which is an area that will be greatly expanded by the cognitive state model. Finally morality is something that will come into the model, but will not receive a complete treatment.

Thus the aims of the cognitive state model are:

1. To use the cognitive state preconditions to provide an explanation in greater detail as to how and why sequencing occurs. (Chapter Four)

2. To use the ideas of politeness to build a more complete picture of how politeness can be used to explain phenomena such as indirect speech acts. (Chapter Six)

3. To build up a description of the possible steps that are necessary when constructing an utterance from a speech act description (consisting of the utterance logical form, cognitive pre-conditions and all presumptions). (Chapter Five).

3.9 Formal Speech Acts and Expressives

In the earlier part of this chapter, a distinction has been made between "ordinary" (i.e. communicative) speech acts and what I have called formal speech acts. However something needs to be said about formal speech acts. Many of the speech acts that comprise the category of declaratives are very specialised, verbs such as **baptise**, **excommunicate** and **name** are correctly uttered by very few. Austin started out his Harvard Lectures (Austin 1962) by examining just such acts, before moving on to communicative acts. He was however cautious about applying the same sort of analysis to both types of act. However Searle apparently had no such reservations, and in (Searle and Van der Veken 1985) attempted to describe both sort of act in the same way. However I share Austin's reservations and feel that formal speech acts should be considered in a different way to communicative acts. I am not alone in this view, Bach and Harnish (1979) also appear to have arrived at the same conclusion calling such acts conventional speech acts. Whereas I only intend to briefly consider formal speech acts, having made the distinction, Bach and Harnish go into much more detail.

Firstly they distinguish two types of conventional speech acts: effectives and verdictives. Effectives effect changes in institutional affairs, whereas verdictives are judgements that are binding because they have been issued in an official context. Bach and Harnish (op. cit. p.117) also state that:

> Conventional illocutionary acts are not essentially communicative and do not require R-intentions.

The hearer is not so much concerned with the uptake of such acts but is merely an onlooker. Consider the speech act **baptise**, assuming that the subject of baptism is a baby, although this is not always the case, then the parents are merely there as observers of the ceremony. However as Bach and Harnish have also pointed out, the fact that a distinction is being made does not imply that a speaker cannot with the same breath say a formal speech act and a communicative one. However these acts are

different, and it would be a mistake to try to fit them into the same framework. Hence, I feel that the notion of cognitive states is not applicable to speech acts such as **baptise**: on the other hand, sincerity conditions seem to have a meaning in formal speech acts that is fundamental to the act, whereas it is possible to conceive of a communicative speech act that breaks the rules where sincerity conditions apply, e.g. a lie. I could perhaps define a lie as a speech act that attempts to communicate the state **bel(S P)** with the condition held by the speaker of **bel(S ~P)**. The consequences of breaking the sincerity conditions for formal speech acts are much different.

If we consider the declaration in a marriage ceremony, then the sincerity of the participants is explicitly tested before they are committed (a process that has been likened to two-phase commit protocol to ensure the consistent updating of a distributed database, where the master process asks the slave processes if they are ready to accept an update, after which they are committed, see Date (1983)).

Additionally certain formal speech acts may not even be speech acts. Consider **testify**, I testify under oath, and the formal aspect of this act is the act of taking the oath. Yet testifying may involve going into considerable detail, during which I might make assertions, report on things etc. In other words, while I am uttering several different types of speech acts I am also testifying, to include such a speech act in the same class as assertives, etc. is to say the least dubious.

For additional proof that formal speech acts cannot be considered using the same sort of analysis as communicative speech acts, consider indirect speech acts. One cannot baptise or marry using indirect acts. The marriage ceremony would not be correct if the officiator were to end with "Well from henceforth you might be seen wearing a wedding ring", formal speech acts are precise and quite often formulaic. It is difficult, for instance, to conceive of an indirect speech act that can be interpreted as testifying. It is the swearing of an oath that primarily determines whether the speaker is testifying or not. If there are indirect forms for certain speech acts only, one must ask the question why this is so and if indirect speech acts are to form a part of speech act theory, then the very fact that certain speech acts cannot have

indirect forms must be judged significant.

Additionally we must also consider the class of speech acts that Searle has called expressives. I have not referred to any of these in my descriptions earlier in this chapter. With this class I remain on the fence as to exactly where they should go. On the one hand it is tempting to consider them using an analysis similar to that of Goffman (1972), where expressive types are considered to be mini-discourse structures, but on the other hand when I thank someone there is more than just a formal ritual, I am communicating that fact that I want to show gratitude for what they have done - sometimes at least. Whatever the analysis that is used to describe expressives, it will not adversely affect the cognitive state theory.

3.10 Conclusions

In this chapter I have worked through examples of several speech act verbs to develop action schemas, which I expressed in what I have called the utterance logical form. The utterance logical form can be used, along with other information to build up the final utterance. There are also a set of states, which are essentially pre-conditions for the act to take place, which I have expressed as cognitive states. Finally, there is a presumed effect, which is an expression of the effect the speaker would like to have upon the hearer. In making a comparison with the inferential model of Bach and Harnish it becomes clearer what I am hoping to achieve. The notion of sequencing and how one speech act may affect another will be explored in more detail in Chapter Four.

Secondly, I hope to show how speech act descriptions in the cognitive state model can be used in conjunction with the pragmatic maxims outlined in section 3.8 to influence the choice of surface form, and an analysis of this will take place in Chapter Five. This contrasts with the approach taken by Bach and Harnish to show how, given an utterance, the appropriate speech act may be inferred from it. Finally, I hope to greatly extend the view that politeness forms part of the overall theory by demonstrating its effect on surface forms in Chapter Six.

4. Speech Acts and Discourse Structure

4.1 Introduction

In the previous section, I developed a schematic definition of speech acts. The schematic definition contained the following separately identifiable components:

i) A state or set of states that define what an individual believes or wants as preconditions for a particular speech act to take place.

ii) A state that is to be communicated to the hearer, perhaps a belief or a want for example.

iii) A state or a set of states that enable the speaker to comprehend the sort of response that he is likely to get from the hearer. Perhaps, for example an understanding that the hearer may not believe what he is asserting.

iv) A desired effect of the speech act, i.e. what we want the hearer to know, believe or do as a result of hearing the speech act.

v) An action that specifies what sort of form the utterance used to perform the act is to take.

In this section I hope to indicate how such a speech act definition can be used to put speech acts into the framework for a theory of discourse structure. The first component, above has little to do with discourse structure, but the second is what is to be communicated to the hearer. If we assume that the point of a speech act is to communicate some state such as: **bel(S P)** then this state may be added to the context of the discourse. In other words, before uttering some statement that may be interpreted as conveying: **bel(S P)**. the speaker is not committed to **P** in the discourse context. After making this utterance, the speaker is now committed to **P**. The hearer must respond in some way to the speaker's expressed belief in **P** and in this section, I intend to elaborate on the ways in which the hearer can respond to the state expressed by a speech act. The third category in the list above also has some bearing on this, because it is an attempt to

describe some of the ways that a hearer may respond to a given act.

Traditional speech act theory has little or nothing to say about relations between speech acts. Indeed, Searle states that the relationships between speech acts are of insufficient interest to warrant study (Searle 1986). On the other hand conversational analysis (see Chapter Two) describes such things as adjacency pairs without specifying very much in the way of a theory as to how the first element in an adjacency pair constrains the second.

If speech act theory is to stand as a viable alternative theory, then it ought to be able to say why, for example **answer** is not thought of as a speech act category, or indeed it ought to be able to specify what constitutes an answer to a question which is thought of as a speech act category. I hope to show that the schematic approach to speech acts can help to answer both of these questions as well as providing an answer to some even more difficult questions.

To pose the question more formally, if I make an utterance that is a surface form utterance used to perform some speech act S_1 with cognitive state set C_i and propositional content P_1 in some context **T**, then how, if at all does P_1 constrain the hearer's response S_2 with propositional content P_2?

This question is about of the notion of sequencing described in the inferential/cognitive state model in the last chapter. In addition to the above question we also have to ask some additional subsidiary questions that are not unrelated. Firstly, given some speech act S_i is it possible to categorise in any way the types of responses that are possible to that speech act? By types of responses, I do not necessarily mean just speech act types, I am referring to the strategy of response that can be employed. Secondly, given that discourse has several hierarchical layers of structure, and both the discourse analysis and conversational analysis models seem to agree on this, must speech act theory provide a total explanation for all hierarchical levels, or is it merely applicable to a limited subset of the hierarchy?

A third question that is no less important, is can or must speech act theory be capable of explaining all discourse phenomena? Here I am referring particularly to insertion

sequences.

Before moving on to consider the main questions, it is worth briefly examining the relationship between speech act theory and hierarchical levels of discourse structure. I think the answer to this question is "no", speech act theory does not and need not explain strategies at all levels of discourse but I will explore this further.

The question of range of responses is one that should also be examined. If I assert that **P**, then what type of responses can I conceivably expect to get, or are they so varied that it is not even meaningful to talk about being able to predict in what form the responses can take?

Firstly, the hearer may have difficulties with the mode of delivery, he may object to it or the utterance may be unintelligible because of it. An example of an objection to it might be (1)

(1) There's no need to shout.

An example of a case in which it might be unintelligible might be something like (2):

(2) Sorry, can you repeat that, its rather noisy in here.

The most common response is a response P_2 to some P_1 with relevance relationship **rel(P_1,P_2)** meaning that P_2 coming after P_1 as it does is relevant according to the conversational presumption of relevance. Speech act theory alone should not need to be burdened with an explanation why two propositions are relevant to each other. A full explanation of relevance may only come when we have a more detailed cognitive explanation of the mind. If this is the case then can speech act theory have anything to say about sequencing? I think it will become clear that the answer to this question is yes.

Thirdly, it is possible for the hearer to change topic, in which case there is no relevance relationship between the two propositions, however topic change is normally marked in the utterance (see for example Schiffrin 1987). This means that two propositions P_1 and P_2 effectively break the conversational presumption of relevance, however they must still obey the sequencing presumption, which is largely speech act driven. In other words, it is speech acts that largely determine at what point a topic change may take place. For example it would not be

permitted to introduce a topic immediately after a question, for example:

(3) Do you know whether that was true or not?

(4) By the way, did you hear about the government minister who was responsible for tougher legislation on drunk drivers and then got breathalysed and was found to be over the limit?

Response (4) would be seen as evasive. However if we consider the following response, it is clear that the rule is not just a matter of forbidding two questions together?

(5) Do you know whether that was true or not?

(6) What exactly did you mean by 'The Model Theory'?

In (6), assuming that 'Model Theory' has something to do with what has gone before then (6) is wholly relevant. This brings us on to the final category of response, which I intend to call meta-speech acts.

A meta-speech act is one that relates to the contents of a previous speech act. For example:

(7) The cirrus clouds have formed a mackerel sky, there must be better weather ahead. (S_1)

(8a) Since when did you learn about meteorology. (S_2)

(8b) What exactly is a mackerel sky? (mS_1)

(8a) is another speech act following on from (7), whereas (8b) is an example of a meta-speech act. I hope to be able to show that by introducing the idea of meta-speech acts, I will be able to provide an explanation of insertion sequences. The idea of meta-speech acts is very similar to the idea of meta-plans introduced by Litman (1985). Insertion sequences provide a challenge to conversational analysis, for the simple reason that they can be inserted between the first and second parts of an adjacency pair. If we are to have a theory of speech acts that allows for a pairing between speech acts within a discourse structure, then we must take account of insertion sequences. The idea of meta-speech acts is the proposed answer to the problem of insertion sequences. The difference between an ordinary speech act and a meta-speech act is largely functional. If I make some assertion, then I would expect the hearer to react to it in some way, even if it is only a grunt of acknowledgement. It is this reaction to my assertion that

will form the second half of the speech act pair (I will describe this idea in considerable detail in this chapter). However, the hearer may not have understood my assertion or may perhaps want me to elaborate on what I have just asserted and reactions such as requests for clarification, elaboration and so on, form insertion sequences. In order to maintain the idea of a relation between a pair of speech acts, an insertion sequence can be seen as necessary for the hearer to react to the speaker's original utterance. In the example above, the hearer cannot comment on the speaker's assertion unless he knows what a mackerel sky is.

To summarise there are four broad categories of response to a given speech act **S1**:

i) A communication problem speech act - one that relates to the way in which the speech act was communicated.

ii) An ordinary speech act, with a relevance relation between the two speech acts.

iii) A change of topic, which is constrained according to sequencing rules.

iv) A meta-speech act, which can be roughly defined as something that is necessary in order to make a reasonable response to the original speech act. In the example above, in (8b) the respondent didn't know what a mackerel sky was and in order to say something intelligent, he would need this information.

I shall not consider category 1 any further and will be concentrating mostly on category 2.

Having stated that the relevance relationship itself is not something that is to be defined as part of speech act theory, there is still the question of how a speech act shapes the sort of response that can be given to it. I believe that there are two main ways in which this can happen.

Firstly, the hearer may produce a response that bears a logical relationship to one of the states that is necessary in order to utter a particular act. To make this clear, lets assume that one of the states that needs to be present in order to **plead** is that the person making the plea has a reason for doing so, say **Q**. So, if I plead for you to do **P**, then I am doing so because of **Q**. One of the ways that a hearer may respond to the plea is by referring to **Q**. Hence, one way that we may define a hearer's set

of responses is by referring to the cognitive states that act as preconditions for the speech act.

Another way in which a response may be related to the speech act that it forms a response to is the communicated state itself. I shall spend some time in this chapter elaborating on this. For example, if I assert that **P**, then by the schema definition given in the previous chapter, I am expressing the cognitive state: **bel(S P)**. The hearer may respond by (effectively) asserting that they also believe that **P**, on the other hand, they may not believe in **P**. Thus one of the aims of this chapter is to examine communicated cognitive states logically and to attempt to define the sort of responses that can logically be given to them. This leads to a sort of discourse logic.

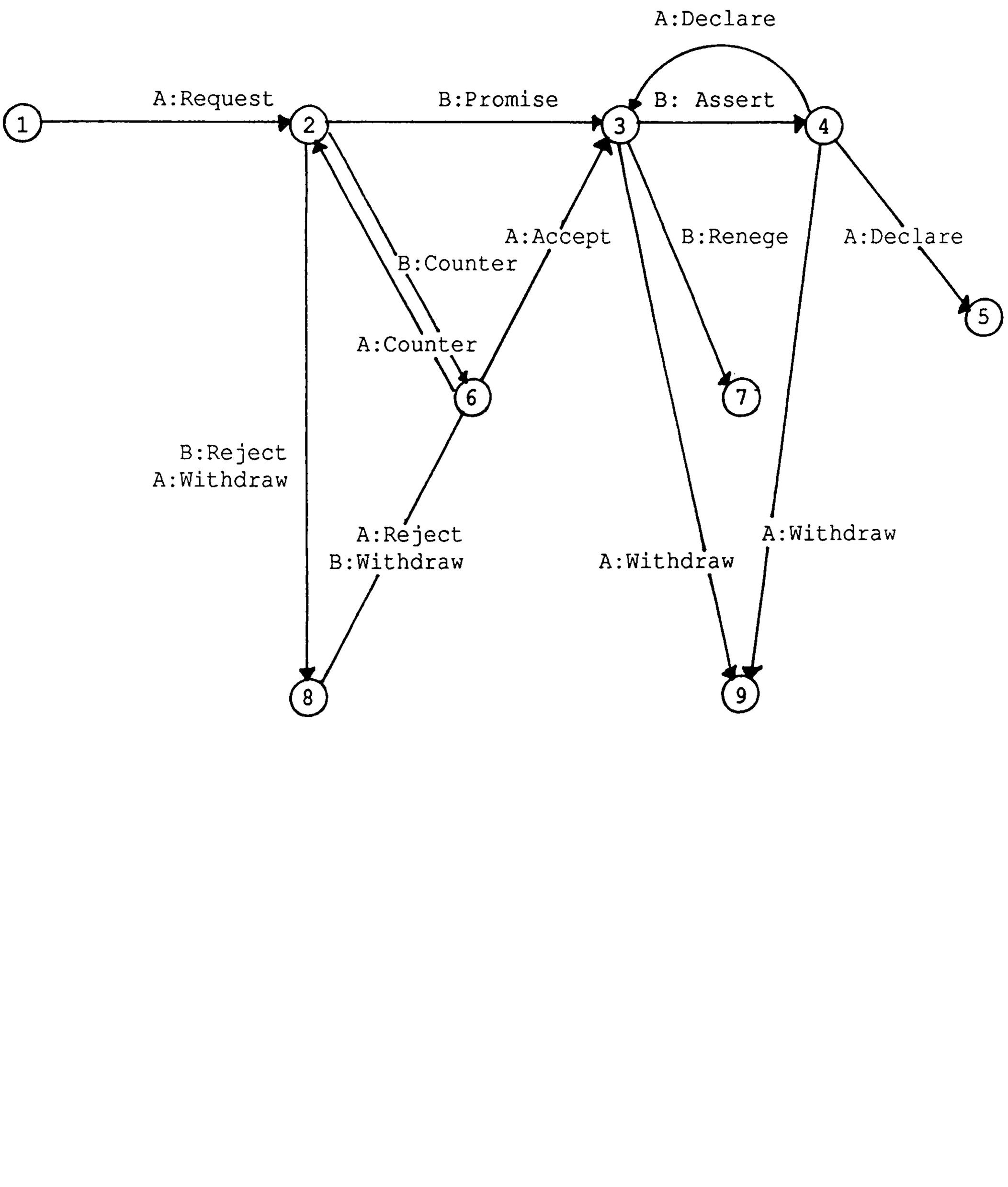
4.2 Cognitive States and Context

It is now time to examine exactly how the presupposed cognitive states influence the sequencing of speech acts. That is, given two adjacent speech acts within an item of discourse, S_1 and S_2, with relevance relation $rel(S_1,S_2)$, how do the cognitive states constrain the sequencing between these speech acts?

Winograd and Flores (1986) describe conversation as a "dance" taking place with speaker and hearer as partners. They draw out a series of possibilities for a request in the form of a graph structure (figure 4.1). A request from **A** to **B** specifies some conditions of satisfaction. After the request there are five possible courses of action (according to the Winograd and Flores model): firstly the hearer can accept the conditions, can reject them or ask to negotiate a change in them. Additionally, they add that the speaker can also withdraw the request before a response is received or modify its conditions. Each of the actions in turn leads to a new state within the graph. In a sense, what Winograd and Flores have attempted to achieve is a sort of outline conversational structure for a request/response pair.

The Winograd and Flores model raises an interesting question; namely do speech acts only act within a framework of sequencing between pairs (omitting complications such as insertion sequences) or can they also be restricted by a larger structure, such as the

Figure 4.1
The Basic Conversation for Action
(Winograd and Flores op. cit. p.65)



one described by Winograd and Flores? After all some of the actions described in the Winograd and Flores structure are in fact speech act categories such as **promise**, on the other hand others such as **counter** are not.

If there are two different levels of discourse that serve to constrain speech acts, then it is possible that this may serve to explain why for example a question is regarded as a speech act, whereas an answer is not. Clearly, it will be necessary to look at speech acts operating both as adjacency pairs and within a larger discourse framework. However, it should be made clear that this does not mean that all discourse structure can be described in terms of speech acts.

If we consider first of all the speech act verb **assert**, then it has four cognitive states according to the description in the last chapter:

1) bel(S [Ex: bel(x ~P)])

2) +bel(S P)

3) bel(S poss(bel(H P)))

4) want(S INFORM(H [Ex: bel(S x)]))

Then the first cognitive state has no effect on the context, it merely serves to prepare the speaker for the fact that some people will disagree with what he is asserting. The second cognitive state is the one that is effectively "transmitted" by the utterance of an assertive, namely that the speaker believes **P** to be true. Hence within the context in which it is spoken, the speaker has become committed to the fact he believes that **P** is true. Similarly, within the context, the hearer now knows that the speaker believes that **P** is true hence we can add to the context:

know(H bel(S P))

The third cognitive state simply prepares the speaker for the fact that he might be believed by the hearer, because this is an internal state of the speaker, it has no effect on the discourse context.

The fourth cognitive state is concerned with the reason for the speaker making the assertion and is of no direct concern when considering the effect of the speech act upon the context.

Having described the effect that making an assertion has upon the context, we now need to consider the hearer's likely responses to the assertion and whether an assertion in any way constrains

what follows it. Obviously, the speaker is prepared for the hearer to either accept or reject **P**, but are more alternatives possible?

First of all, we are making the assumption that the hearer will not attempt to change topic or issue a meta-speech act, these will be dealt with later on. So given that

bel(S P) and

know(H bel(S P))

have been added to the context, what possibilities are open to the hearer? Clearly we have the possibility of either

bel(H P) or **bel(H ~P)**;

but there are others, consider first of all the different categories of speech act and whether each might follow an assertion. Firstly, there is the assertive act, the act of accepting that **P** is true would be an assertive act so many different sorts of assertive acts might follow an assertion. Secondly, directives; the hearer may question why the speaker believes that **P**, hence it is possible to have a directive following an assertive act. The final category, commissives pose more of a problem. It is not clear how a promise for example may follow an assertion, consider the following:

(9) A: Your presentation is rather untidy.

(10) B: I will improve it for next time.

In (9), **A** is making what might at first sight seem like an assertion, but in fact it is more like a criticism. The problem with promise is that if it is not directly relevant to **P** then it represents a change of topic. If it is directly relevant then it can only come about because the hearer perceives that the speaker wants him to do **P**. It is possible to provide an explanation of why this is so by reference to the presupposed cognitive states. One of the preconditions or cognitive states for **promise** was that the speaker knew or believed that the hearer wanted him to do **P**. This analysis suggests a method using the cognitive state approach by which we can determine the way by which one speech act constrains another. Going back to the result of the assertion, then in addition to simply

bel(H P) or **bel(H ~P)**

if epistemic, modal and deontic operators are involved, there are other possibilities, however before going on to examine these some explanation of these operators is necessary.

4.3 Speech Act Schemas and Logical Schemas

In the remainder of this chapter, I shall be using operators from epistemic logic as well as both alethic and deontic modal logics. Furthermore I shall introduce logical schemas that use **P** and this raises two major questions: can these different systems be used together and what exactly can **P** represent?

So far, **P** has been used to represent a proposition and where necessary, it has been explicitly modified by modal or deontic operators, but no mention was made of whether **P** itself was schematic and if it was, whether modal or deontic operators could be substituted into **P**. **P** has also been used in formulae using epistemic operators such as **bel** and **want**. I will make the assumption throughout that **P** is schematic in that it may be replaced by any wff in propositional logic. Hence **P** may represent formulae such as:

P v Q

P & ~Q

but not

necc(P)

However the same does not apply to the operators on **P** itself, such as **necc**, **poss** etc. The reason why this should be so requires some justification. Firstly, consider the basic modal operators **necc** and **poss**. These have been extensively studied in different systems of modal logic, see for example Hughes and Cresswell (1968). Some of the most popular systems are the system **T** (first propounded by Robert Feys (1937). Also the systems **S4** and **S5** are important (Lewis and Langford 1932). In the system **S5** there are only six distinct modalities, namely **P**, **necc(P)**, **poss(P)** and the negation of these. The system **T** has an infinite number of modalities and there are 14 distinct ones in the system **S4** (Hughes and Cresswell op. cit.). A problem with systems of modal logic is that they refer to logical necessity which is not of much use for a study of language. There is no exact correlation between the distinct modalities in these systems and the ones that occur in English. Although it is possible to have iterated modalities in English, I have chosen only to analyse the cases where modalities

are not iterated, namely: **poss**, **necc**, **~poss** and **~necc**.

bel(S poss(P))

bel(S necc(P))

bel(S ~necc(P))

bel(S ~poss(P))

Combinations of the **necc** and **poss** operators are possible but have not been considered.

The deontic operators **O(...)** **p** and **f** come from systems of deontic logic. An extensive survey of deontic logic is given in Hilpinen (1971). The modern foundations of deontic logic were laid by Von Wright (1951). Von Wright stated that there is a significant analogy between the deontic notions of obligation and permission and the modal notions of necessity and possibility. For example a proposition is necessary if and only if its negation is not possible. Similarly, a proposition is obligatory if and only if the negation of the proposition is not permitted. Permission is the primitive of Von Wright's system and there are three basic axioms:

Op <-> ~P~p

Pp v P~p

O(p & ~p) and **~P(p & ~p)** are not valid.

(Note that in the above notation, **p** is a proposition and **P** is the operator denoting permission.)

Von Wright stated that deontic operators must be prefixed to names of acts and not to descriptions or states of affairs. Hence he intended the deontic operators to be used as act-predicates and the implication of this is that the iteration of operators is not permissible, i.e. **OOp <-> Op** is not a wff (Follesdal and Hilpinen 1971, p.10). However Follesdal and Hilpinen (op. cit.) state that it is almost impossible to determine whether iterated wffs are acceptable as principles of deontic logic or not.

Anderson (1958) suggested that deontic logic might be reduced to alethic modal logic by means of the reduction schema

Op <-> N(~p -> S)

where **N** is necessity and **S** is a propositional constant. Anderson interprets **S** as a 'bad thing' or a sanction which results from violation of one's duties. Hence the above formula means

P is obligatory if and only if **~p** (necessarily) implies the sanction **S**, in other words **p** is forbidden if and only if it implies the sanction.

It has been noted that the standard system of deontic logic can give rise to certain paradoxes, for example the paradox of commitment (Chisholm 1963). However this should not affect its use in speech act theory as Chisholm's point is that we need a way of deciding what we ought to do after we fail to do something we ought to do.

Given that it is unclear whether iterated wffs should be accepted in deontic systems, we could assume that they are not acceptable and this then leaves six possible operators on the proposition P (assuming that deontic operators refer to human acts then more properly they may only apply to the formulae **do(... P)**):

O(do(x P))

~O(do(x P))

p(do(x P))

~p(do(x P))

f(do(x P))

~f(do(x P))

This reduces to four because of the symmetry of **p** and **f**. It is cleaner to eliminate the two negative forms, leaving us with:

O(do(x P))

~O(do(x P))

p(do(x P))

f(do(x P))

This leaves the operator **will**, which could be called the operator of intention. If we make the assumption that all propositions represent either states of affairs or acts, then we can distinguish between the two by representing them as **P** and **do(x P)** respectively. The operator **will** is only intensional when it prefixes **do(x P)**, i.e. **will(do(x P))** when it has the rough meaning: **x has the intention of doing P**. When it prefixes **P** it simply denotes the future tense, i.e. **will(P)** means **P will happen in the future.**

Using two distinct types of logic plus the intensional operator means that we must consider the possibility of their combination. There is sometimes a fine distinction between **O(do(S P))** and **necc(do(S P))** for example if I say: **I have to inform you that you have failed your exam**. In this case **O(...)** seems correct. On the other hand, when used in a sentence of the form: **You have**

to ..., whether it denotes necessity or obligation seems to depend upon what exactly the hearer has to do. In practice, I shall make the assumption that **necc** and **poss** refer to states of affairs and the deontic operators refer to acts (I do this because I am not going to consider the cases where modals and deontic can be combined, although in practice this can occur, however, it does make sense sometimes to apply modal operators to acts and this will occur in the analysis below). This means that they cannot be combined, however it is theoretically possible to do so in certain cases. For example **poss** appears to meaningfully prefix **O(...)**. Consider: **You have to give up your seat.** A sentence pointing out an obligation to act. This could be: **You may have to give up your seat.** A sentence pointing out the possibility of an obligation to act. On the other hand the operator **necc** doesn't appear to combine with **O(...)**. Consider: ***You must have to give up your seat.** Other combinations are possible, for example: **I might have to forbid you from seeing her.** This sentence indicates that **poss(f(do(H P)))** is possible. I won't consider these combinations when examining the set of operators on **P** and **do(x P)**.

The operator **will** appears to be superfluous when used in conjunction with deontic operators, for example **O(will(do(H P)))** and **O(do(H P))** appear to have roughly the same meaning, i.e. **It is obligatory that you will do P** and **It is obligatory that you do P**.

Will may also be used with the modal operators, e.g. **I might give you a lift to work tomorrow.** This becomes: **poss(will(do(S P)))**. Once again, I will only consider cases with **will** alone.

Having examined the possible operators upon the proposition **P**, I must say at once that these apply for use with the epistemic operator **bel** in formulae such as: **bel(S ..P)**. I will not consider the operator **know** as a separate case, although I acknowledge that there are indeed differences between the two. The epistemic operator **want** appears to be a lot simpler. It doesn't seem to allow for any operators on **P**. I may want the state of affairs **P** to come about, or want you to do **P**. However it makes no sense to say that I want **P** to be necessary or want **P** to be forbidden. That is different to my wanting you to forbid **P**.

Therefore, given a communicated state of the speaker of **bel(S P)** there are a certain set of responses that the hearer can make to the speaker's expressed belief in **P**. After all, my contention

is that the hearer must respond in some way to the speaker's belief in **P**. Firstly, we have

bel(H P)

this is the simplest case, the hearer accepts **P** as true. Thus if the speaker makes an assertion, such as:

(11) The daffodils flowered late this year,

in order to communicate the fact that the hearer also believes that **P**, he only has to say something like:

(12) Yes,

or even

(13) Mm.

On the other hand, the hearer may not believe that **P**. In this case, in order to maintain the schematic nature of the formulae, I choose to represent this as:

~bel(H P)

If, for example, the speaker asserts that:

(14) Shostakovich's fifth symphony was a tremendous climbdown in terms of artistic direction, when compared with his fourth,

in order to respond with **~bel(H P)** the hearer only has to say:

(15)What rubbish!

or

(16)Not at all.

The hearer's response can be taken to express: **I don't believe that.**

Next, I shall consider the modal operators. The first case is where the hearer believes that **P** is possible, it is either an expression of doubt or a hedged acceptance of what the speaker has just asserted. For example, the speaker may assert that:

(17)Kasparov is the strongest chess player ever,

To which the hearer may respond:

(18)Perhaps.

This response gives an indication that **P** is possible, the hearer has expressed the cognitive state: **bel(H poss(P))**. Note that intonation allows us to make such a response sound like either:

(19a) Perhaps {With a downward tone} (but I don't think so)

(19b) Perhaps {With a rising tone} (possibly you are right)

(19b) truly expresses the desired cognitive state whereas (19a) is perhaps a pragmatic device that enables the hearer to avoid

disagreement.

The second possibility is **~poss(P)**. For example, the speaker may assert (state?) that:

(20) Your dog's in my garden again,

leading to a response by the hearer of:

(21) That's not possible!

or

(22) He can't be, I blocked up that gap in the hedge yesterday.

I suggest that the effective meaning of this is the same as for **~bel(H P)**.

The next case is **necc(P)**. For example, if the speaker asserts(states):

(23) The solution went clear when I added the acid.

If the hearer responds with something like:

(24) Well that is what is supposed to happen.

then he is effectively stating that it is necessarily the case that **P**. (Note that I have been using speech acts such as **assert** and **state** almost interchangeably, I shall explain what I feel is the principal difference between these shortly.) When the hearer adds that **P** is necessarily the case, it is like a comment appended onto the assertion.

The next group of operators on **P** are the deontic operators, of which I shall consider: **O(P)**, **~O(P)**, **fP** and **pP**. When considering the deontic operators, **P** must be an act, hence it must be of the form: **do(x P)**. The first case is when **O(P)** is used as a response to an assertion (statement) that **P** (i.e. **do(x P)**). Typically, this arises as a form of agreement, consolation or sympathy with the speaker's position, for example if the speaker states:

(25) I took our dog to the vets this morning to have her put down,

the hearer may respond with:

(26) Well, you had to do it, she was suffering.

The speaker has stated that he has just carried out an action that he did not feel comfortable about doing, and the hearer responds by pointing out that the speaker had a moral obligation to carry out the action and should not therefore feel bad about it.

~O(P) on the other hand may indicate that the hearer is

commenting on the fact that the speaker has done something over and above his obligations. This may even be used as a form of thanks for an action of kindness, for example, if the speaker states that:

(27) I booked you in a first class seat, because I know the trains are very crowded on Friday evening,

the hearer may respond with something like:

(28) Oh, you shouldn't have, its very expensive.

The next deontic operator is **fP**. The use of this operator depends very much upon who has the authority to do the forbidding. Lets consider the case where the speaker states that he has done **P**. If the hearer is in authority with respect to this action, then he might retort: **but that is forbidden,** or **I forbid you ever to do that again**. If the speaker is in a position of authority, the the hearer's response becomes a question: **But that's forbidden?** If neither party are in a position of authority it becomes a comment or assertion: **I think that is forbidden**.

A similar sort of situation exists for **pP**. It depends very much on who is in a position to grant permission with respect to **P**. If the speaker has asserted/stated that he is doing **P**, then if he is in a position to grant permission for **P** matters, then the hearer's response: **You are permitted to do that?** is in the form of a question. If neither party is in a position of authority with respect to **P** matters, then it is a comment: **Well, you're within your rights**. On the other hand if the hearer is in a position of authority with respect to **P** matters, then it may come across as a mild rebuke for not asking permission, or a confirmation that **P** is permitted: **You may do that if you wish**.

Finally, we must consider the operator **will**. Specifically with an action, when it expresses intention, rather than when it is used simply to denote the future tense. If the speaker has just asserted that **P**, then there seems to be little point in the hearer stating that he will do **P**. Thus, if the first utterance in the pair can be interpreted as: **bel(S P)**, the response **will(do(H P))** looks an unlikely second part.

In the course of this section, I have given examples that looked more like statements than assertions, and this needs to be explained. I stated that the communicated cognitive state presupposed by **assert** was **bel(S P)**. I also referred to the notion

of authority in various places. Firstly, one of the differences between **assert** and **state** is that the communicated cognitive state for the speech act **state** is **know(S P)**. This is not necessarily a difference that manifests itself in the surface form, but comes about because when the speaker **states** that **P**, he is assumed to be an authority on **P** matters. For example I might **state** that I am studying the works of Robert Schumann, because I am assumed to be an authority on knowing what subjects I am studying (but not necessarily the subject matter itself). There is a thin dividing line between those things that may be stated and those that are asserted. For example, I might assert that I am improvising in the style of Robert Schumann, because that is open to debate, but I would not normally expect to be queried if I stated that I was currently building a patio in my garden. Exactly what can be asserted and what stated is not however a problem for speech act theory.

We can therefore give the rough formulae to equate **assert** and **state**:

assert(S P) + auth(S P) = state(S P)

There are two aspects to authority: firstly that **A** is an authority on **P** matters (**auth(A P)**) and secondly that **A** is an authority over **B** with respect to **P** matters (**auth(A B)**).

A summary of **assert/state** and the possible responses that refer directly to it are given in table 4.1. Table 4.1 gives the state communicated by the speaker and the state communicated by the hearer in response to that state, it also lists the authority relationship, where it has a bearing on the outcome of the exchange. A name is then given in the last column to the hearer's act in response to the speaker's assertion or statement.

The second case that I shall consider is where the speaker communicates a cognitive state of **bel(S poss(P))**. The speech act verb that this corresponds most closely to is perhaps **suggest**, although there are others such as **conjecture**, **guess**, **estimate** etc. The difference between these and **suggest** appears to lie either in how the conclusion was reached or the certainty that can be given to **P**. Once again, I shall consider the ways in which the hearer can respond with respect to **P**.

If the hearer agrees with or accepts the suggestion, then he is communicating the cognitive state: **bel(H poss(P))**. On the other

Table 4.1 The Structural Relationships of ASSERT/STATE(P)

Speaker State	Hearer State	Authority	Hearer Act
bel(S P)	bel(H P)	-	accept
bel(S P)	~bel(H P)	-	dispute
bel(S P)	bel(H poss(P))	-	hedged acceptance/ doubt
know(S P)	bel(H ~poss(P))	auth(S P)	dispute
bel(S P)	bel(H necc(P))	-	comment
bel(S P)	bel(H ~necc(P))	-	comment
know(S do(S P))	bel(H O(do(S P)))	auth(S P)	sympathise console comment
know(S do(S P))	bel(H ~O(do(S P)))	auth(S P)	comment thank
know(S do(S P))	bel(H f(do(S P)))	auth(S P) auth(H P) -	question forbid comment
know(S do(S P))	bel(H p(do(S P)))	auth(S P) auth(H P) -	comment rebuke confirm comment

hand, he can reject it (**~bel(H P)**) or confirm it (**bel(H P)**).

For example if the speaker suggests that:

(29) People seem to be getting taller generally,

examples of responses by the hearer might be:

(30a) You might be right. [(bel H poss(P))]

(30b) I don't think official statistics would bear that out.

[~bel(H P)]

(30c) Yes, I seem to recall reading that that was the case.

[bel(H P)]

The communicated hearer response: **bel(H ~poss(P))** is similar to that for **assert**, except that the hearer response seems to be softened as a result of the speaker merely suggesting that **P**. e.g.

(31) A: When I looked at Saturn last night I fancied I saw one of its moons.

(32) B: I don't think that's possible. [with your telescope]

The case of **bel(H necc(P))** is again similar to that for **assert**. When the speaker suggests that something is the case the hearer responds that it is bound to happen, in this case it becomes a confirmation that **P** is the case.

The final modal case: **bel(H ~necc(P))** may occur in an exchange such as:

(33) A: I think the crystal will take on a regular shape.

(34) B: It doesn't have to.

When the response to the speaker state **bel(S poss(do(S P)))** is **O(do(S P))**. Then this suggests the hearer urging or persuading the speaker to do **P**. For example:

(35) A: I might visit him tomorrow.

(36) B: I think you ought to do so.

On the other hand, when the hearer response is: **bel(H ~O(do(S P)))** then it acts more like a comment, for example:

(37) A: I will return the book to you this evening.

(38) B: Don't feel that you have to.

Once again, when the operator **fP** is used, it is heavily dependent upon who can forbid. For example consider the following:

(39) A: I think I might leave my car at the back in future.

(40a) B: Are you allowed to do that? (Authority with A)

(40b) B: That is strictly forbidden. (Authority with B)

(40c) B: I think that is forbidden. (neither party has authority)

The same thing applies to permit:

(41) A: I think I might leave my car at the back in future.

(42a) B: Well that's your right. (Authority with A)

(42b) B: Yes, you may do so. (Authority with B)

(42c) B: Yes, I think you're allowed to do that. (Neither party has authority)

The cases: **bel(S necc(P))** and **bel(S ~necc(P))** don't appear to have any interesting cases that are distinct from their equivalents in the case: **bel(S P)**, therefore, for the sake of simplicity and brevity, I shall not consider them.

The next case is: **bel(S O(do(S P)))**. It is also worth examining the case where the speaker believes that the hearer has an obligation to do **P**. The only operators on **P** that seem to make sense as a response by the hearer to the expressed speaker belief state that: **bel(S O(do(S P)))** are the deontic operators. If the hearer also believes that it is the speaker's duty to do **P** then we have a form of acceptance or acknowledgement. e.g.

(43) A: I shall have to report what you did.

(44) B: I know.

If on the other hand, the hearer believes that **P** is not obligatory, then he disputes the speaker's claim.

If the hearer believes that **P** is forbidden and is an authority over **P** matters, then he may either forbid the speaker from doing **P** or may simply inform the speaker that **P** is forbidden. If the speaker is in a position of authority with respect to **P** or neither party is in a position of authority, then it may take the form of sympathy for the speaker's position - being obliged to do that which is forbidden.

If the hearer believes that **P** is permitted (or is authorised to permit **P**), then the hearer's response is going to be an act of informing, if neither party is in a position of authority, or granting of permission if the hearer is in a position of authority.

If the speaker communicates that he believes that the hearer is obliged to do **P** then the only belief states of the hearer that look plausible are either **bel(H O(do(H P)))** or **bel(H ~O(do(H P)))**. However it is also possible for the hearer to believe that **P** is forbidden which may act as a form of objection.

The cognitive state **bel(S ~O(do(S P)))**, which may be

Table 4.2 The Structural Relationships for SUGGEST(P)

Speaker State	Hearer State	Authority	Act
bel(S poss(P))	bel(H P)	-	confirm
bel(S poss(P))	~bel(H P)	-	reject
bel(S poss(P))	bel(H poss(P))	-	agree
bel(S poss(P))	bel(H ~poss(P))	-	as for assert
bel(S poss(P))	bel(H necc(P))	-	confirm
bel(S poss(do(S P)))	bel(H ~necc(do(S P)))		disagree
bel(S poss(do(S P)))	bel(H O(do(S P)))		urge convince
bel(S poss(do(S P)))	bel(H ~O(do(S P)))		comment
bel(S poss(do(S P)))	bel(H f(do(S P)))		as for assert
bel(S poss(do(S P)))	bel(H p(do(S P)))		as for assert

Table 4.3 Structural Relationships for FORBID(P)

Speaker State	Hearer State	Authority	Act
bel(S fP)	bel(H poss(fP))	-	hedged accept
		auth(S,P)	question authority
		auth(H,P)	evade
	bel(H fP)		accept
	bel(H pP)	-	dispute
		auth(S,P)	challenge
		auth(H,P)	correct/inform

represented in surface form as something like: **I don't have to do P** looks more appropriate as a response to something rather than a leading statement. In terms of the pairing notion that is being developed, it appears to fit better in the secondary position.

When examining the deontic operator **f**, I shall assume that it refers either to something being forbidden (**fP**) as in **You are not allowed to be in this room** and the doing of something that is forbidden as in: **You are not allowed to enter this room**. Hence, if the speaker communicates the cognitive state: **bel(S fP)** and is an authority over **P** matters, it is assumed that an act of forbidding is taking place. When considering this particular cognitive state, it is important to examine three possibilities with respect to authority. The first is that neither party is an authority with respect to **P** in which case the speaker is effectively asserting/informing the hearer that **P** is forbidden. If the speaker is an authority on **P** matters, then the speaker forbids the hearer. If the hearer is an authority with respect to **P** matters, then the speaker is effectively asking a question here. There are a wide range of possible responses by the hearer to the presupposed cognitive state **bel(S fP)**, although some of them are rather bizarre. Firstly, the case where the hearer believes that it is possible that **P** is forbidden, where neither party is in a position of authority, is no different from the case with **P**. The hearer accepts the possibility that **P** is forbidden, hence it is a form of hedged acceptance. For example:

(45) A: I believe it is now illegal for children not to wear safety belts in the rear of cars.

(46) B: Oh, yes, I think you may be right.

When the speaker is an authority with respect to **P** matters, then we have a rather strange form of defiance. Whereas, if the hearer is an authority with respect to **P**, then the response is seen as evasive and in fact the expressed cognitive state is infelicitous because being an authority with respect to **P** the hearer can be assumed to know whether **P** is forbidden or not.

The case where the hearer believes that it is necessarily the case that **P** is forbidden is also odd. If the hearer accepts that **P** is forbidden, then the necessity of **P** being forbidden doesn't appear important.

For the next case: **bel(H ~necc(fP))** we must make the

distinction between it not necessarily being the case that **P** is forbidden and the hearer believing that it is not necessary for the speaker to perform the act of forbidding. The cognitive state given above describes the former rather than latter case. This case is unusual, but not impossible.

The two cases involving the operator of obligation (**bel(H O(fP))** and **bel(H ~O(fP))**) although theoretically possible don't appear to be important.

When the hearer believes that **fP** this forms an acceptance of the speaker's expressed state:

(47) A: I'm sorry but you are not permitted to go in there.

(48) B: Oh, sorry, I didn't know.

B accepts that **P** is forbidden, while expressing the fact that this was not known to him.

If the hearer believes that **P** is permitted, then this amounts to a dispute if neither party is in a position of authority with respect to **P**. Where the hearer is an authority with respect to **P** it acts as a correction, and where the speaker is an authority with respect to **P** it becomes a challenge of authority. The more important cases for the speaker state: **bel(S fP)** are summarised in table 4.3.

The last case that I shall consider is the one in which the speaker communicates the cognitive state: **bel(S pP)**. Once again this is very dependent upon who is considered to be an authority on **P** matters. If we consider first of all,. the responses by the hearer involving the modal operators: the hearer state **bel(H poss(pP))** only appears to be plausible if neither party is an authority with respect to **P** matters. For example:

(49) A: I think I can go into the red lane.

(50) B: Yes, perhaps you can.

The case: **bel(H ~poss(pP))** seems to be of no significance. The two operators: **necc** and **~necc** combined with **pP** look very unlikely. The only other operators that are of any significance are **fP** and **pP**. The hearer state: **bel(H fP)** leads to a dispute if neither party is in a position of authority with respect to **P**.

(51) A: I think I can go into the red lane.

(52) B: No you can't, that's for buses only.

When the speaker is in a position of authority, it acts as a challenge to his authority. When the hearer is in a position of

authority with respect to **P** the response by the hearer acts as a correction.

The relationships of the cognitive state: **bel(S pP)** are summarised in figure 4.4.

Having examined in some detail the ramifications of the state expressed by the speaker, **bel(S xP)** I shall now consider another major category; namely that in which the speaker uses a different epistemic operator, **want**.

The most common form of this arises when the speaker wants the hearer to do something or wants a state to come about. These may be described as: **want(S do(H P))** and **want(S P)** respectively. Note that in this case no operators on **do(H P)** or **P** are meaningful. It is not meaningful for the speaker to want it to be obligatory that the hearer does **P**. Nor would it be meaningful for the speaker to want it to be necessary that the hearer does **P**. The speaker may want the hearer to make **P** possible, but in this case, what the speaker wants is for the hearer to do **Q** in order to make **P** possible.

The expressed cognitive state: **want(S do(H P))** occurs in directives such as **request, order** etc. These speech acts are normally realised by interrogatives and Wh-questions.

Consider first the case where the speaker utters a surface form expressing the cognitive state: **want(S do(H P))** (lets call it a request). The hearer states with respect to this state can be compound, for example, the hearer may want to do **P** and be able to do **P**, but first I shall consider the simple cases. If the hearer is willing to do **P** then this can be expressed as: **will(do(H P))**. In this case, the hearer has accepted the speaker's want and will carry it out. The hearer may also not want to do **P** in this case, if this is expressed directly, it serves as a refusal.

If the hearer expresses the state: **bel(H poss(will(do(H P))))** then this acts as a tentative acceptance (note that **bel(H poss(do(H P)))** means something different, it means that it is possible for the hearer to do **P** - a necessary pre-condition for the hearer to do **P**). If the hearer expresses the state: **bel(H ~poss(do(H P)))**, then it serves as a refusal of the speaker's request.

If the hearer expresses the state: **bel(H necc(do(H P)))** then it is a statement that the hearer was going to do **P** anyway. The

Table 4.4 The Structural Relationships of the State bel(S pP)

Speaker State	Hearer State	Authority	Act
bel(S pP)	bel(h poss(pP))	-	hedged agreement
	bel(H fP)	-	dispute
		auth(S,P)	challenge
		auth(H,P)	correction
	bel(H pP)		accept

Table 4.5 Possible hearer Responses to want(S do(H P))

Speaker State	Hearer State	Act
want(S do(H P))	will(do(H P))	accept
	~want(do(H P))	refuse
	bel(H poss(will(do(H P))))	tentative acceptance
	bel(H ~poss(do(H P)))	decline
	bel(H necc(do(H P)))	statement
	bel(H ~O(do(H P)))	refuse/ grant favour
	bel(H f(do(H P)))	refuse

case **bel(H O(do(H P)))** is rather odd as an expressed cognitive state, it is more likely that the hearer would either make a commitment to do **P**, by expressing the cognitive state: **bel(H will(do(H P)))** or state that he was not going to do **P**.

The case **bel(H ~O(do(H P)))** comes about when the hearer feels that he is under no obligation to do **P**. It may have one of two outcomes: firstly the hearer by stating he is under no obligation to do **P** effectively refuses to grant the request. Secondly, the hearer says he will do it anyway, but perhaps sees it as a favour.

The response **bel(H p(do(H P)))** appears to be irrelevant, but **bel(H f(do(H P)))** is important because it can be used as a reason for not doing **P**. The responses to the request are summarised in table 4.5.

The final case that I shall consider is when the speaker promises to do **P**. In this case, the speaker is expressing two states: firstly **O(do(S P))** that he is under an obligation to do **P** and secondly that he will do **P - will(do(S P))**. This form of speech act is in the class that Searle calls commissives, so it is worth examining.

It is possible for the hearer to believe that **P** (i.e. that **P** has been carried out already) in which case the hearer's response would be a statement to that effect. The belief by the hearer that the speaker will do **P** can be taken as the default case (we assume that if someone says that they will do something that they will do it).

If the hearer believes that it is possible for the speaker to do **P** **(bel(H poss(do(S P))))** this is a necessary precondition for the hearer to believe that the speaker will do **P**. On the other hand, if the hearer believes that it is not possible for the speaker to do **P** his response may be either to state that it is so, or to perhaps question the felicity of the speaker.

The case: **bel(H necc(do(S P)))** seems odd. On the other hand the case: **bel(H ~necc(do(S P)))** if expressed by the hearer indicates that the hearer regards the speaker's promise as a favour (assuming that what was promised was good for the hearer).

The state: **bel(H O(do(S P)))** seems superfluous as does **bel(H p(do(S P)))** but **bel(H ~O(do(S P)))** is similar to the case for **~necc**. If the hearer believes that **P** is forbidden, he may either say so or remain silent.

Finally, the hearer may believe that the speaker will not do **P**. In which case the hearer simply does not believe the speaker.

4.4 Discourse Pairs and Cognitive States

Having analysed the relationships between various presupposed cognitive states in some detail, it is now time to restate what the objective of this exercise actually is.

The central part of the thesis is that each (communicative) speech act (with some possible exceptions) effectively expresses a cognitive state. It is this expressed state that shapes the response by the hearer. This acts as a form of bonding between the utterance pair, so that the first part in some way constrains the second part.

The idea of speech act pairs linked by these states forms a rival theory to the theory of adjacency pairs. It also has distinct first parts and second parts which must be uttered by different speakers. The parts (with some notable exceptions) must be adjacent, and finally certain responses are preferred over others.

One question that has not been adequately addressed is the situation where two speech acts are adjacent, but the second although relevant to the first does not directly relate to it. In the example,

(53) A: I hate Mahler's works.

(54) B: So do I.

B's response relates directly to **A's** initial utterance, because it is effectively saying: **Yes, I hate Mahler's works too.** Contrast this with:

(55) A: I hate Mahler's works.

(56) B: Ah, but have you heard his Rückert Lieder?

B's response is relevant to **A's** initial utterance but does not relate to it directly (although the hearer may indirectly be expressing **~bel(H P)**). The distinction between responses that relate directly to the previous utterance and those that are relevant but do not relate directly is in some cases a fine one. However it is not crucial to the theory that this distinction can be made. When a response is relevant but does not relate directly

to the previous utterance, then it may be decoded correctly by observance of discourse markers used with it. Preferred responses tend not to be marked, but dis-preferred options are marked in various ways. For example: **Yes, but** ... indicates that the hearer acknowledges the speaker's viewpoint but does not agree with it. I consider a detailed study of the use of markers is beyond the scope of this work.

These findings give rise to several points and questions that need to be discussed further. Firstly it should be made clear that the cognitive states themselves are not speech acts. Given that there are several existing speech act taxonomies, I have refrained from attempting another such listing of speech act verbs. Many (but not all) speech acts lead to the expression of a cognitive state, such as a speaker belief or want and this constrains the response that can be made by the hearer. In this way it is possible to build a larger structure from a simple unit. For example if the speaker expresses the state: **bel(S P)** and the hearer makes a response that expresses the state: **bel(H P)** then we might call this an agreement (note that the hearer's response may only be something like **Mm** or **Yes**). On the other hand, if the speaker expresses the state: **bel(S P)** and the hearer expresses the state: **~bel(H P)** then we might call this structure a dispute. The dispute is the foundation for an argument (Schiffrin 1987). So by linking speech acts via cognitive states we can describe larger discourse units. Note that certain of these larger discourse units are more desirable than others. For example, it is generally considered better to form an agreement than it is to have a dispute.

Another case that is potentially more serious arises out of the expressed state: **want(S do(H P))**. The hearer may not want to do **P** (**~want(H do(H P))**). This gives rise to what Leech (1983) calls will flouting and is generally considered to be undesirable. In Chapter Six, I describe this further using such conflicts as the basis of a theory of indirect speech acts. There are other questions that arise from this idea of grouping speech acts in this way:

1. Assuming that the acts are actually speech acts, then given some speech act **S_1** with an adjacent related speech act **S_2**, then if that speech act **S_2** has an adjacent

related speech act **S3**, is it possible to infer the sequence **S1 --> S2 --> S3** ? In other words, can we impose a greater structure than merely relational pairs? This may be possible, as an analysis of actual discourse suggests that the simple idea of speaker initiation followed by hearer response needs to be extended somewhat. For example, the speaker may not only make an utterance with propositional content **P1**, but may also follow this up with a further utterance **P2**. This may be extended indefinitely, but the speaker often indicates when he is about to end this sequence (one marker that tends to be used for this is **so**). For example:

(57) Coz there's no bag meeting. <u>So</u> I though it'll be an opportunity for me to do it.

Another example of where the simple pairing idea might be extended would be cases in which for example a dispute leads rise to an argument. In this case further speech act pairs are functionally related to the first pair (as supporting evidence for the claim and counter-claim).

2. The acts that have been described do not match exact speech act categories. An issue that is important is why it is for example that, a question is accepted as a speech act, but an answer is not. The reason that this has come about may be because it is possible to link a question to a certain type of surface form (interrogative), whereas answers may come in many different forms. For example, **no** is a perfectly acceptable answer as is **Its in the box behind you** and **Did you look in the box?** as well as: **I'll look in the box**. All of these might be answers to the question **Do you know where the newspaper is?** (i.e. **Can you find the newspaper for me - want(S do(H P))**). According to my theory, all three answers relate directly to **do(H P)**; in the first case the hearer provides the speaker with the information necessary to do **P**, in the second the hearer intimates that there is a possibility of **P**. In the third he states that he will carry out some action that might lead to **P** being achieved. The variety of answers make much more sense when examined in terms of presupposed cognitive states in this way.

When a person **A** makes some utterance **U** with propositional content **P**, they are expressing some cognitive state about **P**, either explicitly or implicitly. When a person **B** makes a response, they must make a response that says something about **P**, and they do so either directly by making an utterance that relates to **P** or implicitly relates to **P** by the relevance relationship, in which case **B's** attitude to **P** is marked linguistically. (The exception here is where a new topic is introduced, but this is heavily marked also). The reason that this pairing is not more obvious is that in making a response to **P**, **B** may not only implicitly accept or reject **P** but may also include in his utterance the expression of a cognitive state about some new proposition P_i. On the basis of this analysis, we can then divide speech acts into **primary** speech acts and **secondary** speech acts. Primary speech acts serve to introduce a new proposition into the context, and secondary speech acts are used as a response to an established proposition within the context. Primary and secondary speech acts do not need to be adjacent within discourse and furthermore, a secondary speech act need only be marked, perhaps by stress or the use of a discourse marker.

3. Since, not all speech act verbs have been analysed, the question arises how if at all do the other speech act verbs fit in to the structures described above? Also, some thought must be given to where exactly expressives fit in, in addition to those speech acts that I have named as formal.

Firstly, many of the performative speech acts such as: **declare, excommunicate, baptise** etc. clearly have no place in a theory of discourse structure. We don't suddenly launch into a marriage ceremony in the middle of a conversation. Expressives appear to fit in just about everywhere. We can start off a conversational pair (primary position) with an expressive:

(58) I love Shostakovich's Tahiti Trot, its so witty.

Or they may appear in the secondary position:

(59) A: Do you know Shostakovich's Tahiti Trot?

(60) B: I love it, its so witty.

There is another class of speech act that I have called formal: some of these acts are concerned with "changes in knowledge state". For example, if I **inform**, then I am discharging a duty to let someone know about something, after which everyone may assume that they are in possession of this information. If I **warn** someone about something, then I have fulfilled my obligation to let them know that if they proceed with their course of action, then something bad may come of it. These acts do not express cognitive states, they express information in a way that an assumption can then be made that the recipient of this information may be assumed to be in possession of it. They are in a sense declarative in that they make a change to the world. Such acts make most sense in the primary position.

From the idea of there being a primary speech act and a secondary speech act that go together to form a pair, I pointed out that traditional pairs such as **question/answer** fit into this scheme and the reason that **answer** is not regarded as a speech act type is that it is a generic term for a whole set of speech acts that form an answer to a question. Further, if we consider the **question/answer** pair in terms of presupposed cognitive states, then it is possible to define a formal relationship between the two parts of the pair that enable us to precisely define an answer in relation to a question.

Going through the main speech act verbs briefly, Wierzbicka (1987) groups them into 37 main groupings and I shall briefly examine some of these groupings. The first set is the **order** group, containing **order**,**command**, **demand**, etc. These speech act verbs appear to be mostly primary,i.e. they would occupy the first slot in the speech act pair. The **ask** group containing **ask**, **request**, **implore** etc. are also likely to be primary. The **forbid** group, containing speech act verbs such as **forbid**, **decline**, **refuse** may be primary, but could also be secondary. In fact many of them such as **refuse** or **decline** occupy the secondary slot more often. The **permit** group including **permit**, **allow**, **accept** etc. also tend to be more used in the secondary position.

Wierzbicka also gives a grouping called the **argue**

group, this consists of verbs that are not speech acts at all, but name structures. For example, **dispute** only occurs as a secondary and tends to occur after an assertion. Thus in order to describe an argument, we may start with **A**: asserts **P**. In response, **B**: asserts that not **P**. **B** has disputed **A**'s stance, but merely asserting not **P** is not in itself a **dispute**. This tends to explain why surface form is more important for some types of speech act than other. After this sequence, the exchange could be described as a dispute. If A then defends his position, we have an argument. All the verbs given in Wierzbicka's **argue** group are either larger structures such as **argue** or name secondary position speech acts such as **disagree**. Another group that tends to name mostly secondary acts is the **reprimand** group, including verbs such as **reprove** and **rebuke**. There are many other groups in Wierzbicka's list, however the point is that she has attempted to group together speech act verbs that share certain properties, and these groupings tend to yield verbs which are either mostly primary or mostly secondary.

4. What about meta-speech acts (introduced briefly above)? What exactly are they and what are the rules for their usage?

A meta-speech act, as the term suggests is a speech act about a speech act. This idea comes from the idea of meta-plans (Litman 1985). Instead of the normal sequence of:

A: s1P

B: s2P

where **s1** and **s2** denote states of **P**, described in terms of epistemic, modal or deontic operators, a meta-speech act refers more directly to the speech act itself. For example, consider a typical insertion sequence:

(61) A: Where do you keep the spanners?

(62) B: Do you mean for the car?

(63) A: Yes.

(64) B: Under the stairs.

Here there are two questions and two answers, except that question (1) is paired with answer (4) and question (2) is paired with answer (3). There is no problem for the theory here. (1) is a speech act forming a question. (2) is a meta-

speech act of request for clarification. (3) provides the answer to the meta-act and (4) an answer to the main question. For this reason, insertion sequences are no problem for the theory.

Litman (1985, p.28) describes meta-plans as plans about plans and states that they deal with introducing plans, executing plans, specifying parts of plans, abandoning plans etc. In the same way meta-speech acts deal with clarifying speech acts, modifying speech acts or in some way forcing the speaker to change part of the utterance. In the sequence given above, 2) is a meta-speech act which is an attempt to obtain clarification. It is this idea of a speech act relating speech act that enables us to explain insertion sequences.

4.5 The Thesis Restated

In the last section, several ideas were introduced which need to be pulled together. The cognitive state theory builds on the inferential theory of Bach and Harnish (1979) described in Chapter Three. The work of this chapter seeks to explain sequencing of speech acts within a discourse structure. It does this by using a relevance relationship between adjacent speech acts, and also describes how certain cognitive states can be used to explain a form of pairing between speech acts that relate to the same proposition. In Chapter Three I described several speech act verbs in terms of an action (not specified in detail yet) that allowed the speaker somehow to arrive at the right sort of utterance and a set of cognitive states that acted as preconditions. It became clear in this chapter that the cognitive states could be classified under three different headings. Firstly there were those that effectively justified the speaker uttering a certain speech act. Secondly there were cognitive states that allowed the speaker to predict the sort of response that might be made by the hearer, and thirdly there were cognitive states that were communicated to the hearer (either directly or indirectly).

Having described speech act verbs in this way and forgetting about formal speech acts and expressives, it is still possible to

live with the framework provided by Searle, i.e. assertives, directives and commissives and give an account of these in terms of cognitive states:

i) Assertives - speech acts in which the Speaker makes public his knowledge or belief about some proposition.

ii) Directives - speech acts in which the Speaker makes public his wants or needs.

iii) Commissives - speech acts in which the Speaker makes public his intentions.

I have no wish to draw up long lists of verbs to fit into these categories, save to point out that there would be some migration from Searle's lists. e.g. **permit** is looked upon as an assertive in my scheme.

Many speech act verbs such as **agree**, **rebut** etc. serve a dual function in my scheme, they are not names of speech acts in their own right but name an action that takes place **relative to** another speech act. For example if the speaker asserts that **P**, the hearer may agree with the speaker's assertion. Thus **agree** may on the surface appear to be an assertive, which form-wise it is, but it names a position and an action relative to another speech act. **Answer** can be described in the same way.

At the level of discourse where speech acts are relevant, speech acts may be connected by a relevance relation, which was not thought to be sufficiently restrictive to allow meaningful analysis of the possibilities between speech acts, except to state that in uttering a speech act with a relevance relationship to the previous speech act, an acceptance or rejection of the previous speech act is implied. On the other hand when two adjacent speech acts relate to the same proposition it is possible to describe this exchange pair in terms of primary and secondary speech acts. The primary speech act is the leading speech act in the pair, which serves to constrain the secondary speech act which acts as a response to the primary speech act. So at the lowest levels of discourse structure, speech acts may be paired. At higher levels of discourse, speech acts are not thought to be useful as a means of describing discourse structure.

This approach gives a basis for explaining the relational elements of speech acts and at the same time describing how speech acts fit into discourse structure. The picture is complicated by

meta-speech acts, which act as speech act clarifying or correcting speech acts.

Having presented this theory in terms of existing speech act theory, it would be interesting to also examine it in terms of discourse structure. The question then is how does the pairing notion of speech acts fit in with a theory of discourse structure such as the one described by Sinclair and Coulthard?

The Sinclair and Coulthard model of discourse structure was described in Chapter Two and consisted of a hierarchical level going down from lessons to acts, which were not necessarily identifiable with speech acts. At the level of moves, one level up from acts, they describe a sequence consisting of an initiation move followed by a response move with an optional feedback move. This structure is not out of the line with the speech act model described above. The primary speech act would act as the initiation move and the secondary speech act would act as the response. According to Burton (1981), the feedback part of the structure is missing from open dialogue (as opposed to classroom dialogue studied by Sinclair and Coulthard), and this is broadly in line with the ideas presented here.

It is fairly easy to see why, in a classroom situation there might be an additional move attached to the initiation response pair. So the structure presented is not greatly out of line with existing theories of discourse. Of course, at higher levels in the hierarchy, speech acts have no direct role to play.

It is also possible to equate the speech act pairing idea with the adjacency pair which is at the heart of the conversational analysis model. Schegloff and Sacks (1973) defined an adjacency pair as a sequence of two utterances That are:

i) adjacent

ii) produced by different speakers

iii) ordered as a first part and a second part

iv) typed, so that a particular first part requires a particular second part.

The speech act pairing theory also fulfils these criteria. Firstly the primary and secondary speech acts form a sequence of two utterances which are adjacent. They may of course be separated by meta-speech acts (insertion sequences). Secondly, they are produced by different speakers. Thirdly they are ordered as a

first part and a second part, because there is a primary and a secondary position. Finally, they are typed because certain primaries require certain secondaries. The speech act pairing theory also provides some explanation for preferred (and dispreferred seconds).

Conversational analysis also attempted to provide an alternative theory of indirect speech acts. In Chapter Six, I shall examine indirect speech acts and pull them into the framework described in this chapter. The theory of indirect speech acts will rest partly on the notion that certain pairings of cognitive states are undesirable (for example: **bel(S P)** and **~bel(H P)** or **want(S do(H P))** and **~want(H do(H P))**) and that many indirect speech acts help to prevent disputes from arising.

In Chapter Five, I shall consider the relationship between speech act and surface form, concentrating on common sentence form and speech act type and the relationship between the alethic and deontic modal logics used in this chapter and modal auxiliaries used in language itself.

5. From Speech Act to Utterance

5.1 Introduction

The previous chapter described how cognitive state elements can be used to pair speech acts together and in doing so provide a theory for the integration of speech acts and discourse structure in terms of sequencing and relevance relationships.

The aim of this chapter is to look at surface forms and their linguistic components to firstly describe how a surface form might be chosen for a particular speech act, and secondly to look for evidence to support the theory described in the previous chapter.

In Chapter Four, I put forward the idea that it is possible to relate speech acts because of the presupposed cognitive states. The speaker in uttering something expresses a belief, want, or intention and the hearer in turn must respond to this cognitive state. This gives us some idea of why for example there is a set of responses to a question. In this chapter, I propose to try to relate the cognitive states to actual linguistic forms. This will consist of two parts, firstly, an examination of sentence types and their possible relationship to cognitive states, and secondly an examination of modal auxiliaries and their relationship to the modal and deontic operators that have been used in the earlier chapters.

In carrying out this exercise, I am accepting that it is at best an incomplete analysis. However the main point to be put forward is that certain speech acts may be considered to be "base types" because their definition is bound up with a particular sentence type. For example, it is possible in principle to make a distinction between an assertion and a request by surface form, because an assertion is made using the declarative sentence form, whereas a request is made, at least directly, using the interrogative sentence form. I suggest that base type (or primitive) speech acts should correspond to basic sentence types. This will lead to taxonomy of speech acts of sorts, but the main point is that by uttering a sentence in the declarative form, the speaker knows that it will not be interpreted as for example, a request (once again, in its direct interpretation). The same

applies to an interrogative sentence, which is not going to be interpreted as an assertion (I shall consider the case of so called declarative questions in this section).

The same could not be said of a speech act type such as **boast**. This is not dependent upon it being realised by a particular sentence type (although boasts normally employ declaratives they do not have to, for example: **Do you know where I might buy a good second hand Rolls Royce?**, may seem to be a rather vulgar expression of wealth to someone of more modest means). Furthermore, the distinction between a boast and a statement say is highly sensitive to context and cultural considerations in a way that the distinction between an assertion and a request is not. Leech (1983) gives an example of two Japanese ladies discussing the garden of one of them:

(1) A: You have a beautifully kept garden.

(2) B: Oh no, not at all, the lawn is very untidy.

A response of the form:

(3) B: Well, we try to keep it looking neat.

might be acceptable in Britain, but in Japanese society it would be regarded as boasting.

I suggest that a speech act such as **boast** is not so much an assertion that uses pride as a mode of achievement, thus entailing **assert**, but is rather an assertion that contravenes a pragmatic maxim (perhaps Leech's maxim of modesty (Leech op. cit.)).

The second part of this section will be concerned with an examination of modal auxiliaries and their possible relationship to the modal and deontic operators used in previous chapters.

Another part of this theory is that it includes an idea very similar to preference organisation used in conversational analysis to determine the most suitable second part to some first part of an adjacency pair. This necessarily would include an analysis of discourse markers, which is a highly specialised topic, which I have chosen to omit, although, the use of discourse markers is noted in Appendix I, which includes a section on a possible discourse grammar based on speech acts and discourse markers.

Having examined sentence forms and modal auxiliaries, I then briefly discuss speech act taxonomies.

In the final part of this chapter, I proposed a speech act generation schema, which is based on the speech act recognition

schema of Bach and Harnish (1979), except that it is intended to serve as a framework for explaining how a surface form is chosen for a particular speech act. This is incomplete, as it excludes indirect speech acts which will be discussed in Chapter Six.

If speech act theory is to be regarded as valid, then there ought to be some evidence in grammatical structure to support it. For example, if there are three basic categories of speech act then perhaps there ought to be three basic types of sentence structure. According to Quirk et al. (1973) there are four basic types of sentence, namely: declarative statements, interrogatives, commands (note: Quirk et al. prefer **command** as a sentence type, rather than **imperative**, and it is used as a sentence type here and not as a speech act verb) and exclamatory statements.

In declarative statements the subject is always present (with the exception of certain elliptical statements), and it generally precedes the verb, for example:

(4) John saw Mary through the telescope.

Questions are sentences that are marked by one or more of the following devices:

i) The auxiliary is placed immediately before the subject.

ii) The positioning at the beginning of an interrogative or wh-element.

iii) The use of rising intonation.

Examples of these are:

(5a) Will John leave today?

(5b) Who will leave today?

(5c) John will leave today?

Commands are sentences that generally have no subject and whose verb is in the imperative form:

(6) Leave this instant.

Finally, exclamatory statements are sentences which have an initial phrase that is introduced by **what** or **how**:

(7) What a noise they are making.

Comparing these forms with speech acts, we can roughly equate declaratives to assertives, interrogatives can be equated to questions or requests and commands may be equated to certain speech act verbs such as **command**, **order** etc. Exclamatory statements on the other hand appear to be half way between assertives and questions, although they seem to function more like assertives.

5.2 The Four Basic Sentence Types

Quirk et al.(op.cit.p.166) give seven basic clausal forms:

i) **SVA** (subject verb adverbial): John is in the house.

ii) **SVC** (subject verb complement): John is kind.

iii) **SVO** (subject verb object): John met Mary.

iv) **SVOA** (subject verb object adverbial): John met Mary at the dance.

v) **SVOC** (subject verb object complement): John held the book tightly.

vi) **SVOO** (subject verb object object): John gave Mary the book.

vii) **SV** (subject verb): John laughed.

Of the elements used above, the ones that are significant for speech act identification are **subject,verb** and **object**. The subject is important because it denotes whether the speaker is referring to himself, the hearer or someone or something else.The verb is important in many aspects; for instance, the type of verb may be significant, tense is also significant and auxiliary verbs seem to be of particular importance, so much so that they will be given an extensive analysis.

The second sentence category is the interrogative form which can be subdivided into three classes:

i) Yes/No questions: which expect only affirmation or rejection as a response.

ii) Wh-questions that expect an item of information to be supplied.

iii) Alternative questions that supply two or more options to be chosen from.

Yes/No questions are usually formed by putting the operator before the subject and using a rising intonation. e.g. **Has the train left?** Yes/No questions may also have a positive or negative orientation, in other words it can be biased towards a positive or negative answer. For example: **Has the train left already?** indicates that the speaker thinks the answer is yes but is seeking confirmation. On the other hand a question such as: **Can't you drive straight?** could be restated as: **I thought you were able to, but obviously you can't.** In this way, it acts as a combination of

an old assumption (that you can drive) with a new assertion (that you cannot). If question as a speech act category is a fixed structure as suggested in Searle's theory, then it is difficult to explain why there are different surface forms such as yes/no questions with positive/negative orientation, on the other hand this dichotomy poses no problem for the cognitive state approach. Because, by using a form where the speaker expresses his belief that **~P** having previously believed **P** as in a form like: **Can't you drive straight?** it is possible not only to give an illocutionary force, but also give some indication of the presupposed cognitive states.

Yes/No orientation questions allow the speaker to express his own belief while at the same time seek confirmation of it. A question with a positive orientation might be paraphrased as: **I believe that P, am I correct?**

Another form of question is the tag question which consists of operator plus pronoun, with or without a negative particle, for example: **The train has left, hasn't it?**

Here there is a crossing of positive and negative in that if the superordinate clause is positive then the tag is negative and vice versa. The use of tag questions is quite subtle and there are four identifiable forms:

i) Positive + Negative with rising tone.
   e.g. He likes his work, dóesn't he?
   (positive assumption + neutral expectation)

ii) Positive + Negative with falling tone.
   e.g. He likes his work, dòesn't he?
   (negative assumption + neutral expectation)

iii) Negative + Positive with rising tone.
   e.g. He doesn't like his work, dóes he?
   (positive assumption + positive expectation)

iv) Negative + Positive with falling tone.
   e.g. He doesn't like his work, dòes he?
   (negative assumption + negative expectation)

The meaning of i) is: I assume he likes his work, am I right? The meaning of ii) on the other hand is: I assume he doesn't like his work, am I right? There is a similar contrast between iii) and iv).

There is also an exceptional type of yes/no question called a declarative question, e.g. **You've got it with you ?** It is identical to a declarative sentence except that it uses a final rising intonation. Additionally there are a set of yes/no questions that operate with modal auxiliaries, but these will be examined when I look at modal verbs.

The next group of questions are wh-questions which are formed with the aid of an interrogative or Q-word: **who/whom, whose, what, which, when, where, how, why**. Alternative questions may either resemble yes/no questions, for example:

(8) Would you like pizza or spaghetti?

or a wh-question, for example:

(9) Which type would you like, chocolate, vanilla or raspberry?

There are two other minor types of questions: exclamatory questions and rhetorical questions. Exclamatory questions generally invite the hearer's response to something that the speaker feels strongly about. e.g.

(10) Wasn't it noisy in there.

The next major category of sentence forms are commands. The most common category of command differs from a statement in that it has no subject and has an imperative verb. It may be noteworthy that modal auxiliaries do not occur at all in commands. Commands may be toned down by politeness markers such as **please**. The subject is usually implied in the meaning of a command and so is absent except in a few cases, such as:

(11) You, be quiet!

or

(12) Somebody close the door.

A first person imperative can be achieved by placing **let** in front and adding the subject: **Let me see**. Negative commands may be achieved by adding don't onto the front of the sentence: **Don't go!** **Do** may be used to create what Quirk et. al. call persuasive imperatives:

(13) Do have another glass.

Finally, there are two categories of sentence that are worth mentioning: firstly exclamations, which resemble wh-questions in their initial placement of a wh-operator, except that there is generally no subject-operator inversion:

(14) What a lot of people we met!

The second category is what Quirk et al.(op. cit. p.203) call formulae: there are certain irregular wh- questions such as:

(15) What about the house?

There are also some irregular exclamatory types and additionally some forms that still employ archaic elements such as:

(16) Suffice it to say we lost.

The point of this survey is to identify the basic sentential structures and to see whether it is possible to match speech act types onto them.

The evidence that I am seeking in this chapter is threefold: firstly to see whether it is possible to match basic speech act types onto sentential structures and possibly to be able to explain in terms of speech act theory why the range of sentential structures exists. Secondly, I hope to be able to show how the various cognitive operators are communicated, here, for instance, a study of modal auxiliaries will be necessary. Thirdly I will be looking for linguistic evidence to support the view that acceptance or rejection of propositions is in some way marked. This section should ideally involve an examination of discourse markers, however for reasons mentioned previously, I decided that such an examination would extend the thesis beyond reasonable limits.

5.3 Speech Acts and Sentential Structure

In this section, I will concentrate on interrogatives, wh-questions and commands, leaving declaratives until the next section when I will consider the role modal auxiliaries have to play. If we consider simple yes-no questions first of all, then clearly the speaker wants to know something, hence the underlying cognitive state might be: **want(S know(S P))**. However there are more complex forms that have to be considered. Quirk et al. (op. cit. p.192) consider questions with positive or negative orientation. A question has a positive orientation, when it has what Quirk et al. call an assertive form. An example is the use of a quantifier that suggests 'at least one' rather than 'some or none'. For example, **someone** gives a question a positive bias whereas **anyone** remains neutral. For example:

(17) Did anyone come last night?

(18) Did someone come last night?

(17) remains neutral, whereas (18) has a positive orientation. The explanation for questions with a positive orientation in terms of cognitive states is fairly simple. If the speaker believes that **P** might be the case, i.e. **bel(S poss(P))** and wants to know for certain that **P** is the case, then it seems natural to phrase the question by using positive orientation. In other words, the speaker is effectively saying, I think that **P** might be true, but I want to know for sure. The advantage of using positive orientation is firstly that it seeks agreement between speaker and hearer which is generally accepted to be a desirable state, secondly it provides the speaker with a surface form that explicitly acknowledges the hearer as an authority with respect to **P** matters.

Negative orientation, on the other hand is more complex, as Quirk et al. (op. cit. p.193) state, it implies that the speaker once believed that **P** was the case, but now has evidence that **~P** and wants to confirm it. In other words, the speaker once held the state: **bel(S P)** but now suspects that **P** may not be true and now holds the state: **bel(S poss(~P))** and wants to confirm that **~P** is in fact true. Once again, there are good reasons for having such a surface form: the speaker seeks evidence to support a change in a cognitive state, tentatively putting forward his thesis and at the same time acknowledging the hearer as an authority on **P** matters

A second form of negative orientation question combines **not** with positive orientation, e.g. **Haven't you left yet?** This is similar to forms that show disbelief.

The next main category of interrogative is the tag question. Tag questions are also analysed by Sadock (1974). There are four main types(described above). Positive + negative with a rising tone is a reported assumption plus a question. e.g. **You take sugar, don't you**. In order to explain this in terms of cognitive states, we should consider the possibilities where the speaker believes that **P** is the case:

i) I believe that **P** is the case, and I want you to know about it. (assert)

ii) I know that **P** is the case, and I believe that you have to accept my ability to say this (state).

iii) I know that **P** is the case, and I believe that it is my duty to tell you about it. (inform).

iv) I believe that **P**,but I know that it is something on which you are an authority, but you can tell me whether it is correct or not. (Tag question i).

v) I believe that **P**, but I know that it is something on which you are an authority, so can you confirm that **P**? (Tag question iii).

Tag question i), appears to be the case where the speaker believes that **P** is true, but knows that the hearer is an authority on **P**; thus it can be explained by a combination of belief and authority and is distinct from other cases.

Tag question ii) is negative + positive with a rising tone, e.g.

(19) You don't take sugar, do you?

This means that the speaker believes that **~P** and wants to know whether it is the case or not. It is a negative form of tag question i).

Tag question iii), on the other hand is made with the expectation that it will be confirmed. Epistemically, these are all distinct cases.

Declarative questions e.g. **You take sugar?** appear to be very similar linguistically to type i) or type iii) tag questions and appear to be used where the answer is (assumed to be) a foregone conclusion. Wh- questions on the other hand are epistemically of the form **want(S know** ... .

An interesting form is the exclamatory question, e.g.

(20) Didn't she sing well!

It invites the hearer's agreement to something that the speaker strongly believes in. What the speaker assumes is that **bel(S P)** and **bel(S necc(bel H P))**. An exclamatory question may act as a device to indicate that the speaker believes strongly in something and is seeking agreement, but not a negative response. In other words, by making an exclamatory statement the speaker is in effect saying: **I believe strongly in this and it would be unwise for you to question it**. It might be a means of avoiding disagreement, but there is also a certain dramatic effect of using exclamatory statements, for example: **Didn't he do well** has far more effect than the rather deadpan: **He did that well**. But this is an issue of stylistics rather than one of speech act theory.

The other major sentence category is the command (Quirk et al. op. cit. p.200), of which the simplest form has no subject and an imperative verb. It is noteworthy that modal auxiliaries do not occur in imperative sentences, however commands may be toned down by the use of politeness markers, such as:

(21) Please, shut the door.

Commands serve epistemically to express wants of the speaker when it is assumed that the hearer will carry out an action which satisfies the want.

Commands may have a subject in for example:

(22) You, be quiet.

They may also have a subject when they serve in the function that Sinclair and Coulthard call nomination, e.g.

(23) You, at the back

(teacher pointing to a pupil). Negative commands are formed by the use of **don't**, e.g.

(24) Don't open the window.

In addition to these forms, there are also persuasive imperatives, (listed as such by Quirk et al.(op. cit. p.202), but they refer to the other sentence types in this category as commands) e.g.

(25) Do go with us.

This appears to function as an order without the element of authority, except that its primary use now appears to be a form of politeness where the speaker expresses a strong desire that the hearer perform some action, perhaps to indicate hospitality, e.g.

(26) Do have another cointreau.

Its use as a form of admonishment now seems rather archaic, e.g.

(27) Do pipe down.

This section is only a survey of surface forms, however some of the variety of for example interrogatives cannot satisfactorily be explained by a theory that thinks only of speech act verbs without an examination of the cognitive states underlying the corresponding acts. If we simply think of a speech act in terms of a verb, e.g. **question**, then this give no indication of why there are so many ways of asking questions nor how particular surface forms may be chosen to represent the question. The cognitive state theory, by examining a speech act, not just in terms of its illocutionary force, but also in terms of the cognitive states that are presupposed by the speech act can give us reasons for the range of basic sentence types.

5.4 Modal Auxiliaries and Cognitive States

The cognitive state theory uses deontic and modal operators, hence modal auxiliaries are bound to be important as surface markers of cognitive states. However it is not easy to use them as evidence for the cognitive state theory for the simple reason that deontic and modal logic arose because of the existence of these verbs. Of course any theory of speech acts ought to be able to explain some of the variety of sentential structures, and one that includes an explanation of the existence (or requires the existence) of modal auxiliaries cannot be totally wrong. After all, if a theory only explains language usage in terms of lexical verbs, then it is missing something. The approach taken in this section will be to examine the modal auxiliaries semantically and the types of sentence structure in which they can appear in order to explain what sort of cognitive states they are conveying or signalling. It has been noted for example in the previous section that modals are missing from commands.

Will

The modal **will** may, according to some, be used to denote the future tense. Quirk et. al. (op. cit. p.47) describe **will** as denoting a "colourless, neutral" future. However Boyd and Thorne (1969) state that there is no future tense in English and that the function of the modal **will** in sentences such as **He will arrive tomorrow** is to make a prediction. They also dissolve the habitual form of **will** into a simple habitual form, e.g.

(28) She will cross her legs while reading.

This is equivalent to the sentence **She crosses her legs while reading.** Quirk et al. (op. cit. p.55) give four meanings for the modal **will:**

i) Willingness. Used in polite requests, e.g., **Will you have another cup of coffee?**

ii) Intention. Mainly used in the first person, e.g. **I'll see you when I have time.**

iii) Insistence. e.g. **He will keep going, whatever you say.**

iv) Prediction. Quirk et al. define three forms of prediction: specific prediction, e.g. **The hero will die in the last act.** Timeless prediction, e.g. **Aqua regia will dissolve gold.** Habitual prediction, e.g. **He will talk for hours if you don't stop him.**

Clearly, the person of the main verb plays some role in defining the meaning of the modal. Consider the sentence

(29) I will help if you ask.

and the variant forms

(30) You will help if [he] asks.

(31) He will help if you ask.

The second person has a different meaning to the first and third person. In the first and third person the sentence appears to have the willingness interpretation, whereas in the second person it has the insistence meaning. The expression of intention occurs mainly in the first person, insistence however can occur for any person,e.g. **I will speak my mind. You will leave immediately. He will keep going, whatever you say.** Note that the difference between intention and insistence is denoted by stress on the modal, i.e. insistence in the first person is marked by stressing **will.** The differences in forms of prediction are of no importance for this study as the first and second denote the differences between a specific event and a universal law.

There appears to be a linguistic difference between the use of **will** denoting intention and other uses. For other uses, it is possible to omit **will** and still arrive at the same meaning, whereas this is not the case for its use denoting intention. For example, it is possible to rephrase the polite request:

(32) Will you have another cup of coffee?

as

(32a): Please have another cup of coffee?

or its use to indicate prediction:

(33a): The hero dies in the last act.

(33b): Aqua regia dissolves gold.

(33c): He talks for hours if not stopped.

But when used to indicate intention, e.g. **I'll see you when I have time.**, it cannot be re-phrased and still denote intention, neither it seems can the example of insistence given above. However it might be paraphrased as:

(34): He keeps going, whatever you happen to say.

but the meaning seems slightly different. Insistence is arguably observed intention (i.e., I know that his intention is x). This suggests perhaps that the principal use of the modal **will** is to denote intention and that its other uses are secondary.

Lyons (1977) suggested the notion of (future) tense as a modality, and this appears to make some sense when put in the context of a possible worlds model. The operator **poss** refers to something being possible in a future world that is accessible from the current one. However **will** may describe an intention that something be true in a future world accessible from the current world.

More importantly, from the point of view of speech act theory it is worth examining the operator **will** in conjunction with person. In the first person **will** denotes intention on the part of the speaker. In the third person however, it represents a prediction (but may also denote the habitual form). In the second person it denotes insistence. The cognitive states that these represent are:

i) **will(do(S,P))**

ii) **will(do(H,P))**

iii) **will(do(x,P))**

The first of these gives us no real problems, in stating that I will do P, I am making a commitment and making a statement of intention. But the other two cases are not so obvious. Taking the third person first, the predictive and habitual case can be seen to blur to some extent. If we consider non-personal forms such as: **It will** ... then it is easy to see that we are dealing with predictions, however whether we are talking about a prediction or a habitual form depends upon what is being described. If for example I am referring to the weather, e.g.

(35) It will rain in Aberystwyth, it usually does.

Then I am not talking about a habit of the weather, I am making a prediction based on experience. On the other hand if I talk about an animal say, then it is easy to predict the habits of that animal, for example:

(36) When the cat comes in it will sit in front of the fire.

A prediction based on known habits. The modal use of **will** gives no problems for the third person.

The second person is more tricky, a sentence such as:

(37) You will leave immediately,

indicates insistence. It is worth examining how this differs from a command such as:

(38) Leave immediately,

and a request such as:

(39) Would you be so good as to leave immediately.

The command is issued in anticipation that it is likely to be carried out, on the other hand insistence using the modal **will** indicates that the hearer is reluctant to carry out the command. A command is an invocation of authority to get something done, whereas by saying: **You will do ...** the speaker is indicating a requirement that in any future world **P** must have been done by the hearer. In a sense, the speaker is invoking authority to counter the intention of the hearer to not do **P**. Hence there is a consistency between the three basic meanings of **will**. When used in the first person, it is an indication that the speaker has made a commitment to do **P** in a future world. When it is used in the third person, it acts as a prediction that **P** will be true a future world and when it is used in conjunction with the second person it indicates an insistence on the part of the speaker that the hearer do **P** in a future world. Hence, the operator **will(x,P)** can be used in the cognitive state theory to provide an explanation of the use of the modal auxiliary **will**.

The modal **will** may also be used in a question as in the form: **Will you do P?** The person also affects the use of **will** in this simple form of question. When used with the first person it is a rhetorical or internal question meant to be answered by the speaker:

(40) Will I be a party to this?

When used with the third person it becomes a question of a third party's intention:

(41) Will he come this evening?

This is similar to its use with the second person. This may be expressed as:

want(know(S will(do(x P))))

When used in the negative form, **will** in simple declarative sentences simply negates all the positive forms. The same appears to hold true for questions.

CAN

Quirk et al. (op. cit. p.52) list three uses for the modal **can**:

i) Ability. For example: **You can translate it if you set your mind to it.**

ii) Permission. For example: **Can I leave now?**

iii) Theoretical Possibility. For example: **The snake pass can get blocked by snow in the winter.**

Ability can be represented by the operator **poss(P)**. **Can** may be used with all three persons to denote ability: **I can lift the chair onto the table, You can lift the chair onto the table, He can lift the chair onto the table.** Although in the second person, the modal is stressed to denote ability.

In order to represent permission, we simply use the deontic operator: **pP**. Theoretical possibility can be represented as simply **poss(P)**. Permission is an interesting case: in the interrogative form first person, it is treated as an informal request for permission: **Can I go now?** This may be represented as: **want(S do(H P))** where **P** is schematic for **pP**. In the second person it is unclear whether a request is being made, or the speaker is questioning the hearer's ability, but it does not denote permission. In the third person it depends upon the propositional content as to whether the speaker means: **Is he able to do** P? or **Will you give him permission to do P?** For example:

(42) Can he go now? (Request Permission)

(43) Can he juggle with three skittles? (Questioning ability).

In the declarative form, the unstressed use of **can** denotes a statement of permission: **I can leave any time I want to.** In the second person, unstressed **can** denotes permission: **You can go.** The same applies for the third person.

There is a distinction between theoretical possibility and possibility, I shall consider this when examining the modal **may**.

MAY

Quirk et al. (op. cit. p.53) give two uses for **may**:

i) Permission. For example: **You may stay out until eleven o'clock.**

ii) Possibility. For example: **It may be a rough passage.**

However, there appears to be a third use, **may** can also denote possible intention:

(44) I may come and visit you tomorrow.

This should be considered to be distinct from possibility and can be represented as: **poss(will(do(S P)))**.

When used to indicate permission, **may** is a polite form as opposed to **can** which is generally considered to be less correct, however modern usage has tended to blur the distinction, but **may** still remains more formal. It can be represented by the operator **pP**. Whereas **I can ...** may denote permission in the first person declarative form, **I may** appears rather odd:

(45) I may go any time I like.

In the first person it more usually denotes possible intention. In the second person it denotes permission:

(46) You may come and visit me any time you like.

In the third person, it also seems rather odd to use **may** to denote permission:

(47) He may leave now.

The more normal use for **may** is to denote possibility in the third person:

(48) He may be rather annoyed with you.

If we consider the use of **may** in interrogative forms, then in first person it is exclusively used for permission:

(49) May I leave now?

It is also used in this way in the third person:

(50) May he be permitted to leave now?

It doesn't appear to be used in the second person in the interrogative form.

The following example should make clear the distinction between theoretical and actual possibility:

(51) The snake pass can get blocked by snow in the winter.
(Spoken on a fine summer's day) - Theoretical Possibility.

(52) The snake pass may be blocked by snow, so lets go by the M62. (Actual Possibility).

There is a similarity between theoretical possibility and ability. We talk about someone having the ability to do something, and theoretical possibility is rather like talking about an object

having the ability to do something:

(53) Aqua Regia can dissolve gold.

This could be re-phrased as:

(53a) Aqua Regia has the ability to dissolve gold.

Hence we can link theoretical possibility to ability and this perhaps explains the reason why **can** is used rather than **may**.

SHALL

Quirk et al. (op. cit. p.54) list three uses of the modal **shall**.

i) Willingness on the part of the speaker in the second and third person. For example: **He shall receive what is his due.**

ii) Intention on the part of the speaker, only used in the first person. For example: **I shall let you know in due course.**

iii) Insistence or legal injunction. For example: **We shall do exercise 35b. The tenant shall maintain the property in good order throughout.**

The use of **shall** to denote willingness on the part of the speaker in the second and third person is interesting because it appears to be an expression of the speaker's intention to do something, or at least the intention to see that something will be done. The speaker effectively expresses the intention to see that **P** gets done and this perhaps explains why the usage of **shall** in this form is restricted to the second and third persons.

Intention on the part of the speaker, used in the first person only merely confirms the analysis above, in this form it is interchangeable with **will**. Insistence, or legal injunction, is marked by the use of **shall** in conjunction with a dynamic verb (i.e. a verb where the subject is the agent of some action). For example: **The tenant shall maintain** ... as opposed to **You shall receive** ... In the former case it is insistence or injunction that the subject do such and such a thing. In the latter case, the subject will be the beneficiary of some action. Insistence is best denoted by use of the epistemic operator **want**: **want(S do(H P))**.

SHOULD, OUGHT and **MUST**

Quirk et. al. (op. cit.) list four uses of **should**:

i) Obligation and necessity: **You should always cover your mouth when you cough. They should be home by now.**

ii) Putative use after certain expressions: **I am sorry that this should have happened to you.**

iii) Contingent use in the first person only: **I should love to move to a larger house.**

iv) Formal Real conditions. **Should you change your mind, just let me know.**

From the point of view of cognitive states, only the first use appears to have any importance. There is a very strong link between the first use and the obligation operator regardless of person: **I/you/he should** ... all point to a statement of obligation which is represented by: **O(do(x P))**.

The obvious way to represent necessity is to use: **necc(P)** but the use of **should** seems weaker than **must**.

Ought may be used to denote obligation, necessity or expectation. The use of **ought** for obligation or necessity appears interchangeable with **should,** however there is a separate case:

(54) They ought to have finished by now.

This use is not specifying that "they" are obliged to be finished by now. It is almost as if the obligation operator is being applied to a state of affairs. Thus the previous example could be expressed as: **This situation is obliged to yield up the result that they are finished.**

Must may be used to denote obligation or compulsion or necessity. An example of obligation is:

(55) You must be home before 11 O'Clock.

An example of necessity is:

(56) There must be something wrong.

These cases can be represented by:

O(...) and **necc(P)**.

5.5 The Logical and Pragmatic Use of Modal Auxiliaries

The difficulty with modal auxiliaries is that they have both a logical and pragmatic function (Leech 1987) which is difficult to unravel. If we are to accept the cognitive state approach, then

it seems reasonable to assume that modal auxiliaries are used to communicate cognitive states that have modal forms, but any theory that goes from speech act to surface form must also be able to give some explanation of the pragmatic use of modal auxiliaries.

The main uses of modal auxiliaries are to indicate ability, permission, theoretical possibility, possibility, willingness, intention, insistence, prediction, obligation and necessity.

If we look first of all at ability, theoretical possibility and possibility then all of these may be represented using the operator **poss(p)** in the case of some state or situation or **poss(do(x P))** in the case of some action. Ability tends to relate to human or animal performance, e.g.

(57) Babies can usually walk by the time they reach fifteen months,

or

(58) The leopoard can climb trees.

But when we come to sentences describing inanimate objects, the distinction between ability and theoretical possibility becomes blurred, e.g.

(59) The lamborghini sports can do 150 m.p.h.

This suggests that the distinction between ability and theoretical possibility is dependent upon what is being described. It therefore seems correct to describe both using the operator **poss(...)**.

Possibility itself is slightly different, when I say for example:

(60) I may leave tomorrow.

I am not so much expressing my ability to do so, as a possible intention, but without committing myself. There is another possible use of the operator **poss**. It may also be used to express what I will call hedged predictions, e.g.

(61) It may rain tomorrow.

This allows us to represent this group as follows:

i) Ability: **poss(do(S P))**

ii) Theoretical Possibility: **poss(P)**

iii) Possible intention: **poss(will(do(S P)))**

iv) Hedged predictions: **poss(will(P))**

Note the use of the modal **will** in these examples.

The second group of modal meanings are intention, insistence

and prediction. An example of intention is

(62) I will leave tomorrow morning.

An example of insistence is

(63) You will move that car now.

Finally, an example of prediction is:

(64) It will rain tomorrow.

The representation of intention is: **will(do(S P))**. Prediction can be represented as: **will(P)**. However, insistence is more tricky. When I insist on something being the case, firstly I believe that the hearer does not want to do **P**, secondly I want to convey the fact that I will not accept a refusal on the part of the hearer. In order to understand this better, if we compare it with prediction: when I make a prediction about the hearer I leave the modal auxiliary **will** unstressed, e.g.

(65) You will fall ill tomorrow because that was way past its sell-by date.

Whereas, when I insist, **will** is always stressed. What is being conveyed with the prediction is: **will(do(H P))**, or **will(H P)**. That appears to be the same when insistence is used, except that the purpose of the stress indicator on the modal is to convey the fact that the speaker will not accept a refusal on the part of the hearer.

Permission may be indicated by the modal auxiliaries **can** and **may**. The suggestion is that **may** is more formal or more polite than **can**. Examples such as : **You may leave now** and **You can leave whenever you like** may be represented as **pP**. However there is a pragmatic aspect that needs consideration. I shall consider politeness in its own right in Chapter Six.

Necessity is usually indicated by the use of the modal **must**, which can be represented as **necc(P)**. This leaves us with obligation. Three modals are commonly used to denote obligation: **ought**, **should** and **must**. I will deal with **must** first: **must** is used to denote **O(P)**. **Must** may be used to state obligation, e.g.

(66) You told me that you must leave before ten o'clock.

Or to put someone under obligation, e.g.

(67) You must be back before ten o'clock.

Ought and **should** are much more problematical however. White (1975) suggests that **ought** can be defined as descriptive of what is owing in a set of circumstances. If I say:

(68) You ought to (should) finish your Ph.D. write-up.

Then what is being expressed is something that is good for the hearer, it is as White suggests (op. cit. p.140) something that is missing from a set of circumstances. This suggests a pragmatic rather than logical aspect to the use of these modals.

Looking more directly at the modal auxiliaries, their uses and relation to cognitive states, it is possible to provide some sort of account of the way the modal auxiliaries are used. If we consider the use of the modal auxiliaries in conjunction with the person of the sentence, then it is possible to think in terms of the action that is being denoted and the interaction between speaker and hearer. For example requesting permission: the speaker may request permission for himself or for a third party, but it makes little sense for him to ask the hearer to permit himself to do something. We find that there is no form of **May you** ... This form of analysis enables us to build up a more complete picture of the relationship between the logical and pragmatic uses of modal auxiliaries.

Consider the modal auxiliary **can**: its main uses are ability and permission in declarative sentences. It is not meaningful for the speaker to grant himself permission, but he can do so for the hearer or a third party (to the hearer). It is also possible for the speaker to state that such and such an act is permissible (for all three persons). Permission has little meaning with the non-personal pronoun, except in the case of:

(69) It (Your dog) can run around in our garden.

The use of **can** to denote ability is also consistent, it is possible for the speaker to state ability in any of the three persons. When we come to the non-personal pronoun it tends to be used to denote theoretical possibility, though as I pointed out previously, the distinction between theoretical possibility and ability is slightly blurred.

When **can** is used in the interrogative form, its use is consistent though more pragmatic. When the speaker requests permission, he can do so in the first and third person, it makes no sense for the speaker to ask the hearer to grant himself permission, therefore in the second person, it may be used to ask if permission has been granted to do **P**. The pragmatic aspect of it is that the question: **Can you ...?** sometimes is used as a request

and I shall consider this in Chapter Six when I examine indirect speech acts.

May is used in the declarative form to denote possibility or permission. In the first person it is used only to denote possibility (or as I have described earlier, possible intention). It is interesting to compare **can** and **may** in their use as modals of permission. **I can** ... may be used to state that I have been given permission to do **P**. **I may** ... on the other hand cannot have this meaning and it is interesting to speculate why this is so.

If I am granted permission to do **P**, this only has meaning if I am able to do **P**, i.e. I have the ability to do **P**. On the other hand, granting permission to do **P** does not necessarily mean checking to see that the hearer has the ability to do **P**, but it does mean making it possible for the hearer to do **P** (assuming he has the ability to do so). This is perhaps the reason why the modals are used in this way.

In the interrogative form, **may** is only used to request permission, because the hearer becomes the authority, it is not meaningful to request that the hearer grant himself permission and hence there is no second person interrogative form.

The analysis of modals in conjunction with a model of speaker and hearer using cognitive states containing modal operators seems to reduce many of the problems caused by the interaction between the logical and pragmatic use of modal auxiliaries.

5.6 Speech Acts and Discourse Markers

Studies of discourse markers indicate that their use is very much culturally based. Schiffrin (1987) for example gives a very comprehensive account of their use, although her account is based on observations from one particular type of culture (The Jewish New Yorker). However, as I observed when analysing some of the work in discourse analysis (Sinclair and Coulthard 1975), discourse markers seem to have some role to play. In order to explain the part that discourse markers might have in speech act theory a summary of what has been stated seems an appropriate starting point.

Having pointed to several deficiencies with the Searle model of speech act theory (Chapter One), I went on to examine the role

that speech act theory might have to play in discourse structure, contrasting the two rival approaches. In Chapter Three I introduced the idea of a speech act as an act communicating a cognitive state (or states) to the hearer. Within this system, there is still a locutionary act, which is the surface form realisation of the speech act. The illocutionary act effectively becomes the speaker's cognitive states with an associated action that translates the cognitive state that is to be transmitted into the appropriate surface form. I suggest that the remaining cognitive states associated with the speech act represent an explanation of the "use" of the speech act and may be inferred by the hearer from the surface form. My suggestion is that an explanation of the use of a particular speech act can be given in terms of the cognitive states that comprise its description.

The perlocutionary effect of the speech act is the presumed (or preferred effect), and if this preferred effect (the rules of which are governed by convention) is carried out by the hearer then his response does not need to be marked in any way.

The cognitive state that is transmitted between speaker and hearer may be expressed in terms of some proposition **P**. I used epistemic, modal and deontic operators to describe the possibilities. On this basis, speech acts may be roughly broken up into two distinct groups: those that express belief - assertives to use Searle's taxonomy and those that express a want of the speaker - directives. The commissive class may express intention.

Thus, an assertive communicates to the hearer a cognitive state of the form

bel S ...

whereas a directive communicates to the hearer a cognitive state of the form

want S ...

It is also possible to think of a commissive speech act as communicating intention in the form

will(do(S P))

In addition to the cognitive states there are positions of authority between speaker and hearer. There are four possibilities:

1. The speaker is in an undisputed position of authority. For example if I state that my son suffers from atopic eczema,

then I would not expect the hearer to dispute the fact, unless of course they happened to be my son's general practitioner. The subject matter of the proposition can give rise to a mutually held belief that the speaker is in a position of authority with respect to his utterance.

2. The hearer is an undisputed position of authority. This fact can subtly alter the speech act, for example an assertion becomes a question:

(70) (Client to stamp dealer). **Four margin penny blacks are worth substantially more than three margins?**

3. The position of authority is disputed. For example in an academic argument.

4. Neither party is in a position of authority. For example two individuals exchanging social niceties at a bus stop.

It is noteworthy that position of authority may sometimes have to be refined as in certain circumstances an individual may be in a formal position of authority (as opposed to being an authority on **P** matters), and yet know less than the hearer. In this case, I choose to adopt the terminology used by Berry (1982) to describe this situation. She used the term **position of authority** to describe the situation where one speaker is in a formal position of authority over another and **primary knower** where one speaker is a recognised authority on a subject. It is the second situation that I have described above. However, formal authority does have a role to play. It might, for example change the level of politeness used by both the subordinate (to more polite), and the superior (perhaps to less polite). It also can have a dramatic effect upon speech acts conveying cognitive states of want.

Returning to the cognitive states themselves, I stated that there where two basic types of speech act, those communicating a belief and those communicating a want. Looking first of all at the category that communicate a want - the directives. These may be subdivided into two broad classes: questions and requests. Questions communicate the cognitive state:

want(S P)

Requests on the other hand communicate the cognitive state:

want (S do(H P))

5.7 On A Taxonomy For Speech Acts

There have been several attempts to describe the variety of speech acts in terms of a taxonomy of speech act verbs. For example Searle and Van der Veken(1985), Bach an Harnish(1979) and Wierzbicka(1987) have given an extensive verb-based taxonomy. Because I have chosen to express speech acts in terms of cognitive states rather than verbs, I shall refrain from attempting another such taxonomy. That is not to say that certain speech acts should not be described in this way, for example, Austin's performatives largely appear to be verb-based. How else should actions such as baptism or excommunication be described?

Additionally, there are verbal actions that I have not considered such as expressing regret, apologizing etc, Perhaps, these should also be categorised using a verb-based taxonomy. Searle and Van der Veken (op. cit.) and Wierzbicka(op. cit.) have included in their taxonomy speech act verbs that do not appear to speech acts at all, for example: **argue**.

One of the problems with a verb-based taxonomy, indeed with any form of taxonomy is that the speech act that is conveyed by some utterance, may be heavily dependent upon the interpretation of that utterance. For example, two syntactically similar declarative sentences may be interpreted as very different speech acts, consider:

(71) I made a mess of the putty on the window.

(72) I made a mess of the caviar on the Concorde.

(71) forms part of a conversation to a joiner as a request to have a look at some botched up do-it-yourself work. (72) might be seem as boasting. Perhaps, therefore, some speech acts can only be categorised not just in terms of what the speaker says, but also in how the hearer reacts. Or putting this more generally, perhaps a speech act is categorised according to how the propositional content expressed in the utterance is judged within the language community. Taking the problem of **boast** as a speech act. Boasting is highly dependent upon culture and therefore can only be described in terms of cultural norms.

During the course of this thesis, I have been concerned with studying speech act theory in relation to discourse structure and

have arrived at a theory based on the notion of presupposed cognitive states. There might be a temptation to base a taxonomy upon cognitive states, however, I suggest that this would be very difficult. It is easy to think of declarative sentence types as expressing belief or interrogative sentence types as expressing wants, but that only splits up speech acts into two. Furthermore, it poses problems for indirect speech acts.

Another idea might be to categorise speech acts according to the set of presupposed cognitive states and the action that make up the description of the act (see Chapter Three). However, that is difficult because I believe that there ought to some flexibility in the description of an act, i.e. it might be possible, given the description of an act comprising of n cognitive states, that a speaker can still express that act in some utterance if he only uses n-1 cognitive states. i.e. there ought to be a certain amount of flexibility in the description of a speech act. This flexibility makes a taxonomy a very difficult undertaking.

I also believe that certain speech acts can only be described in terms of pairs, e.g. an acceptance, and this makes the undertaking even more difficult.

5.8 Summary and Formal Model of Utterance Generation

I set out to do two things in this thesis: firstly to provide an explanation of speech act theory in discourse structure, i.e. how speech acts can be used as building blocks for discourse structure, and secondly to give some explanation as to how it is possible to derive surface forms from speech act schemas.

Consider the first of these, we need to go back to the schemas of Chapter Four. These schemas attempt to describe the role that speech acts have to play in discourse structure by pairing speech acts connected by a cognitive state that effectively binds the pair together. The notion of a pair of speech acts (or perhaps just acts, if one rejects the notion of speech acts) is a common factor in both rival models of discourse described in Chapter Two. The conversational analysis approach has at its heart the adjacency pair, which matches very closely to the speech act pairing described in Chapter Four. The adjacency pair

has four characteristics: firstly the two component parts are required to be adjacent (insertion sequences apart - insertion sequences are explained in this theory in terms of meta-speech acts). Secondly, the two component parts must be produced by separate speakers, again this applies to this theory. The third characteristic of adjacency pairs is that they are ordered; i.e. they have a first part and a second part. In the cognitive state theory this is also true. Finally, the component parts of an adjacency pair are typed. This also applied to the cognitive state theory, though some second parts may appear corresponding to different first parts. This may be partly explained because the cognitive state theory is specified in much greater detail.

It appears that the notion or pairing introduced in Chapter Four is not incompatible with the idea of adjacency pairs. Furthermore, there is a natural pairing in the discourse analysis models, for example, the Sinclair and Coulthard model (1975, p.26) includes a level called the teaching exchange. The teaching exchange consists of three moves of which only the first part is essential: initiation, response and feedback. However, this applies to a classroom situation where feedback from the teacher would be a sound conversational (and pedagogic) strategy. In ordinary conversation feedback would be inappropriate, and Burton (1981) suggests that in order to modify the Sinclair and Coulthard model to everyday conversation, the feedback move should be eliminated. This leaves us with a pairing of initiation and response. It appears that there is common ground between the discourse analysis approach and the conversational analysis approach.

The basis of the cognitive state theory is that speech acts may be paired in virtue of a cognitive state presupposed by the first part that influences or steers the second part. In order to build a discourse structure based on speech acts, we need to build combination rules of speech act pairs to form larger units. A simple example of this is when speaker asserts that **P** and the hearer responds to the effect that he agrees with **P**.

The Formal Model

Finally, the time has come to attempt to describe how a surface form may be generated from a particular speech act schema,

however incorporation of indirect forms will have to wait until the next chapter. I shall need to modify the basic presumptions of the Bach and Harnish model slightly in order to adapt them for use in the Generation Model. The Linguistic Presumption (LP) becomes:

> The Hearer is presumed capable of determining the meaning and referents of the expression E generated in its base form from the speech act schema S_i.

In other words the Linguistic Presumption is a presumption that speaker and hearer share a basic set of speech acts and commonly perceive how they are represented linguistically, e.g. both accept that there is such a thing as an assertive and that it is generated in the form of a declarative sentence.

The Communicative Presumption remains as before, but I shall modify the Presumption of Literalness into a Presumption of Directness (PD). I have chosen to avoid the added complication of the speaker speaking non-literally as opposed to indirectly which I will incorporate in the next chapter. In using the Presumption of Directness, I am making the assumption that unless there is good reason to do otherwise, the speaker will speak directly, i.e. generate a direct surface form from the speech act schema S_i. The Presumption of Directness is therefore:

> The speaker will, unless there is a good reason not to do so, use a direct utterance form U_d to perform the speech act S_i.

In addition to these, I require a Pragmatic Presumption (PP):

> The speaker assumes in performing some speech act S_i that the hearer understands the preconditions, illocutionary force and effect on the communicative context of the speech act S_i.

In other words, there must be a shared understanding of the mechanics of the speech act. An understanding of the preconditions of the act includes for example, the fact that when making an assertion, the speaker wants the hearer to believe that what he is saying is true, but at the same time recognises that not everyone will believe him etc. The illocutionary force is effectively what the speech act is intended to convey. The effects are that a certain cognitive state is being conveyed to the hearer.

This allows us to define the direct strategy for the generation of surface forms from speech act schemas. Here I shall

recognize only three basic speech act forms (excluding performative speech acts); assertive acts which typically have a declarative sentential construction, directives which form either imperative sentences or questions. Finally there is speaker intention, which would usually be expressed by a declarative sentence type.

The Direct Strategy: Speaker recognizes his wants, beliefs and intentions with respect to some proposition **P**. Speaker recognizes the authority relationship with the hearer with respect to **P**. Speaker recognizes some basic speech act form **Si**. From this he generates a basic sentential form **Ui**.

i) Assertive form: Speaker modifies declarative form (**Ui**) to add (modal) operators, if any.

ii) Directive form: Speaker modifies surface form (**Ui**) to reflect authority relationship with respect to **P**.

Speaker modifies **Ui** to reflect his own feelings and perception of **P**.

In proposing this strategy, I am making no assumptions about what actually happens in human thought processes, for example, because modal auxiliary clauses are added later, I am not claiming that that is actually what happens, it may be that it occurs in parallel. I am merely claiming that the addition of modal auxiliary clauses plays an important part in reflecting the required speech act in the final surface form. The last part of the strategy reflects changes that may be made to the utterance in order to change an assertion into a critical assertion for example, or an expression of regret about **P**.

I believe this is justifiable because these acts do not map directly onto their own sentential forms. An unexplored avenue of research here would be to examine this model in relationship to theories of systemic grammar and how they direct the structure of surface forms (see for example Halliday (1990) and Berry(1975)).

6. Indirect Speech Acts

6.1 Introduction

One of the greatest difficulties facing speech act theory has always been the problem of how to incorporate indirect speech acts into the theory. In this section, I shall initially examine Searle's work on Indirect Speech Acts before going on to examine theories of politeness, which appears to be connected with indirect speech acts. The idea that will be developed in this section is that indirect speech acts come about for a variety of reasons. Firstly, they may arise because of positions of authority. I shall develop my ideas of indirect speech acts in accordance with the structures developed in previous chapters, in particular the "use" model of speech acts developed in Chapter Three. If we accept the idea that the avoidance of what Brown and Levinson call "face threatening acts" is one of the driving factors behind politeness and hence some types of indirect speech acts, then attempts must be made to avoid a loss of face by both parties when uttering certain speech acts.

An example that is easy to understand is making a request. In this section, I shall argue that there are associated with requests certain cognitive states, such as knowing whether the hearer is able to carry out the request, or if the request involves the hearer giving something, whether he has the object in the first place etc. Therefore rather than making the request directly, the indirect act involves finding out if there is an obstacle to the hearer servicing the request. For example, the hearer may not be able to service the request, the hearer may not have the object being requested or even not want to service the request.

We cannot treat all requests equally, for some requests such as passing the salt, we would not reasonably expect the hearer not to want to service such a request. On the other hand requesting a lift home from someone we don't know too well might be difficult because they might not want to service our request. I intend to describe why certain strategies for requesting are used which allow a way for both parties to keep face.

Other indirect acts may come about because of the existence of additional knowledge states associated with a speech act. For example, when pleading, we may plead with the hearer to do **P** because of **Q**. If, however the hearer is perfectly aware of **P**, then we could simply assert **Q** as an indirect form. After all, what is important in making a plea is not so much the plea itself as the reason for making it.

The contention is that each speech act type (such as a request) has associated with it a set of cognitive states, which concern what the speaker knows or believes with reference to **P**, how the speaker came to the conclusion that **P**, what the speaker perceives the hearer knows about **P** (i.e. whether the hearer is an authority on **P** matters or an authority over the speaker on **P** matters, or simply what the hearer believes about **P**). Additionally a speech act type has associated with it a description of what the speaker is attempting to convey to the hearer and what the speaker expects the hearer to believe or do in response to **P**. It is also associated with a description of how the hearer may respond to the speech act (the second half of the speech act pair). Furthermore, there are a set of strategies (that may not be the same for everyone) that are used to perform the speech act in accordance with a cultural set of politeness requirements. This I have called the speech act schema or plan.

Furthermore, in Chapter Four, I examined how speech acts may be related via cognitive states to form a pairing of speech acts which acts as a building block for discourse structure. Certain cognitive states may lead to conflict, for example where the speaker makes an utterance that indicates that he believes that **P** (**bel(S P)**) and the hearer doesn't believe that **P** (**~bel(H P)**). This may lead to conflict in the form of an argument; but as these are socially undesirable (in most cultures), there may well exist a strategy for avoiding this form of conflict.

Even worse, if the speaker wants the hearer to do **P** (i.e. has requested that the hearer does **P**) and the hearer does not want to do **P** then we have what Leech (1983) calls will incompatibility. Again this is undesirable and should be avoided.

Rather than think of the reason for making most indirect speech acts in terms of the avoidance of face threatening acts, it is more logical to think of it in terms of a strategy for avoiding

undesirable pairings of cognitive states. After all, when making a request which is turned down, who loses face? According to the Brown and Levinson model (Brown and Levinson 1987), it appears to be the speaker who loses face, but in many societies, it is the hearer who loses face if he cannot grant the request. I shall examine notions of politeness in conjunction with the cognitive state model in this chapter.

6.2 Searle's Theory of Indirect Speech Acts

Searle (1969) first proposed the notion of indirect speech acts, a work that he substantially revised in Searle (1979). According to Searle, a speaker may utter the sentence:

(1) Can You pass the salt?

and

> mean it not merely as a question but as a request to pass the salt.
> (Searle 1979, p.30).

Searle states that in order to understand an indirect speech act:

> the speaker communicates to the hearer more than he actually says by way of relying on their mutually shared background information, both linguistic and non-linguistic, together with the general powers of rationality and inference on the part of the hearer.
> Searle op. cit. p.32).

Furthermore, he states that the means of understanding an indirect speech act include:

> a theory of speech acts, principles of co-operative conversation and mutually shared factual background information of the speaker and hearer, together with an ability on the part of the hearer to make inferences.
> (Searle op. cit. p.32).

The ideas presented in this chapter will not disagree greatly with this approach except that much missing detail will be filled in. In order to understand how Searle visualised these ideas being brought together, it would be illuminating to study his example (Searle op. cit. pp.33-35).

Searle cited the utterance pair:

(2) X: Let's go to the movies tonight.

(3) Y: I have to study for an exam.

The question that arises is: how does X know that Y's utterance constitutes a rejection of his suggestion? Searle describes the rejection of the proposal of X the primary illocutionary act and the statement of fact the secondary illocutionary act. He then puts together a reconstruction of how X might have arrived at the conclusion that his proposal is being turned down. (Searle op. cit. p.34).

Step 1: I have made a proposal to Y, and in response he has made a statement to the effect that he has to study for an exam (facts about the conversation).

Step 2: I assume that Y is co-operating in the conversation and that therefore his remark is intended to be relevant (Principles of Co-operative Conversation).

Step 3: A relevant response must be one of acceptance, rejection, counterproposal, further discussion, etc. (Theory of Speech Acts).

This is the first step that needs clarification. By assuming that the response is of a particular type, Searle is implicitly accepting the notion of speech act pairing, his theory as it is rules that speech acts stand alone and are not affected by their immediate predecessors. Yet here we have a tacit acceptance of either the notion of an adjacency pair, or of the ordering of two (or more) speech acts within a discourse structure. The cognitive state theory would also allow us to carry out step 3, but it explains it in terms of the cognitive state expressed by the proposal which limits the response that can be made.

Step 4: But his literal utterance was not one of these, and so was not a relevant response (inference from steps 1 and 3).

This important step outlines something that will be discussed in great detail in this chapter, namely the idea of conflicting pragmatic principles, namely relevance and sequencing. Relevance specifies that utterance U_i must be relevant to utterance U_j following it. The sequencing maxim states that when the primary

speech act is a proposal (the exact name given to it is not so important), then the secondary speech act must be of a certain type, giving rise to a mis-match of pragmatic principles. The response should be relevant if the second speaker obeys the relevance maxim, but the actual response, doesn't appear to obey the sequencing maxim, because a direct interpretation of it indicates that the second speaker is making a statement. A statement of this sort is not an appropriate response to a proposal. Therefore, there must be an indirect interpretation which is appropriate as a response to the proposal.

To summarise:

i) Utterance 1 is a proposal (say).

ii) Utterance 2 must be relevant. Secondly, according to the sequencing maxim, it must be an appropriate response to a proposal.

iii) Its direct interpretation indicates either that it is not relevant or that it violates the sequencing maxim, because it is not an appropriate response to the proposal.

iv) There must be an indirect interpretation that does not violate the sequencing maxim.

Step 5: Therefore, he probably means more than he says. Assuming that his remark is relevant, his primary illocutionary point must differ from his literal one (inference from steps 2 and 4).
This inference can be made because of the apparent conflict between the pragmatic principles, but this is not the only reason why an indirect speech act can be interpreted as such.

Step 6: I know that studying for an exam normally takes a large amount of time relative to a single evening, and I know that going to the movies normally takes a large amount of time relative to a single evening (factual background information).

The notion of factual background information is rather vague here, there is something far more precise in the utterance that can be used to form the correct conclusion, namely the fact that in the utterance the modal auxiliary of necessity is used, compare it with the responses:

(4) I want to study for an exam.

(5) I will be studying for an exam.

Both of the above utterances seem noticeably less friendly than the one given by Searle, probably because the inference that can be drawn is that Y has to do something by necessity, thus implying that he cannot do anything else.

Step 7: Therefore he probably cannot both go to the movies and study for an exam in one evening (inference from Step 6).

Step 8: A preparatory condition on the acceptance of a proposal, or on any other commissive, is the ability to perform the act predicated in the propositional content condition (theory of speech acts).

Step 9: Therefore, I know that he has said something that has the consequence that he probably cannot consistently accept the proposal (inference from steps 1, 7 and 8).

Step 10: Therefore, his primary illocutionary point is probably to reject the proposal (inference from steps 5 and 9).

In this example, the indirect speech act occurs in the secondary position in the speech act pair. Were it the case that the indirect speech act was in the primary position, then step 3 would no longer apply. As we shall see in this chapter, there are many reasons why indirect speech acts are used.

Searle goes on to examine sentences that are conventionally used in the performance of indirect directives. He identifies certain categories of indirect directives:

i) Sentences concerning H's ability to perform A. e.g. **Can you pass the salt?**

ii) Sentences concerning S's wish or want that H will do A. e.g. **I want you to do A.**

iii) Sentences concerning H's doing A. e.g. **Would you kindly get off my foot?**

iv) Sentences concerning H's desire or willingness to do A. e.g. **Would you mind not making so much noise.**

v) Sentences concerning reasons for doing A. e.g. **You should leave immediately.**

vi) Sentences embedding one of these elements inside another. e.g. **Might I ask you to take off your hat?**

Searle then states that certain facts pertain to these sentence types (Searle op. cit. p.39).

1. The sentences in question do not have an imperative force as part of their meaning.

Searle provides as support for this statement the fact that such sentences can be linked with the denial of any imperative intent. e.g.

(6) I'd like you to do this for me, but I am not asking you to do it or requesting that you do it or ordering you to do it or telling you to do it.

This argument seems to be particularly feeble as it could just as easily be linked with an imperative force: e.g.

(7) Might I ask you to take off your hat?

This could just as easily have been

(7a) Take off your hat.

The only difference is of course that the former is more polite.

2. The sentences in question are not ambiguous as between an imperative illocutionary force and a non-imperative force.

The question of ambiguity is a difficult one and it is not simply a case of saying that all of these indirect speech act types are inherently non-ambiguous, certain indirect speech act types such as: **Might I ask you to** ... one could argue are inherently non-ambiguous, but indirect forms such as hints may be deliberately ambiguous to give the hearer "a way out".

3. Notwithstanding Facts 1 and 2, these are standardly used to issue directives.

Searle states that there is a systematic relation between these type of utterances and directive acts in a way that there is no systematic relation between an utterance such as "I have to study for an exam" and rejecting proposals. In this respect, I agree with Searle.

4. The sentences in question are not, in the ordinary sense, idioms.

5. To say that they are not idioms is not to say they are not idiomatic.

6. The sentences in question have literal utterances in which they are not also indirect requests.

7. In cases where these sentences are uttered as requests, they still have their literal meaning and are uttered with and as having that literal meaning.

8. When one of these sentences is uttered with the primary illocutionary point of a directive, the literal illocutionary point of a directive, the literal illocutionary act is also performed.

Searle suggests that the difference between the cases that have been categorised and the refusal to go to the movies is that the categorised cases are systematic. In the explanation that I shall develop, I hope to be able to show that cases such as the refusal to go to the movies do not have to be treated in an entirely separate way, but at the same time recognising that indirect speech acts arise for a variety of reasons.

Searle then attempts to furnish an explanation in terms of felicity conditions and preparatory conditions, which give rise to certain generalisations:

1. S can make an indirect request (or other directive) by either asking whether or stating that a preparatory condition concerning H's ability to do A obtains.
2. S can make an indirect directive by either asking whether or stating that the propositional content condition obtains.
3. S can make an indirect directive by stating that the sincerity condition obtains, but not by asking whether it obtains.
4. S can make an indirect directive by stating that or asking whether there are good or overriding reasons for doing A, except where the reason is that H wants or wishes etc., to do

> A in which case he can only ask whether H wants, wishes etc. to do A.

Although these may be valid observations (Searle himself states that these are generalisations and not rules) there is no way of explaining what constraints there are on these generalisations. For example, what are the circumstances that result in a statement that the propositional content obtains being treated as an indirect speech act? Without giving some thought to the ways in which the statement of some proposition becomes a directive, then the generalisation is almost meaningless. More importantly, there is no explanation why these mechanisms for indirection exist. In my analysis of indirect speech acts, I shall also be concerned with why indirect speech acts are performed. Finally, Searle extends his analysis to include indirect commissives producing a set of generalisations similar to the ones for the directives.

6.3 A New Theory of Indirect Speech Acts

6.3.1 Introduction

It should be noted first of all that there are many reasons why indirect speech acts are performed. The main thrust of this work however will be to examine the role that pragmatic maxims have to play in determining surface form and the theory that will be developed is that indirect speech acts arise mostly because of potential conflicts between either pragmatic maxims or presupposed cognitive states that are socially deemed to be undesirable. Additionally, an attempt will be made to explain why indirect speech acts are used as forms of politeness.

There appear to be (at least) four potential types of indirect speech acts:

i) Indirect speech acts that arise because of authority.

ii) Indirect speech acts that arise because of conflicts between pragmatic maxims.

iii) Indirect Speech acts that arise because of politeness considerations.

iv) Indirect Speech acts that arise because of additional or missing cognitive states presupposed by a speech act.

The first category includes cases where a speaker in authority uses toned down orders, e.g.

(8) I suggest you look at Sacerdoti's work on planning.

The second and third categories in many ways overlap, to take Searle's example:

(9) A: Shall we go to the movies tonight?

(10)B: I have to study for an exam.

Sequencing demands that a proposal such as the one made requires a response, but the direct response "no" seems impolite and hence a conflict is set up. The way out is indirection that hints at the reason why the proposal is being turned down.

An indirect speech act that arises because of a missing or additional presupposed cognitive state occurs when the direct form is no longer appropriate. Consider for example pleading; when we plead with someone, we plead with them to do **P** because of some reason. That reason might only be an appeal to their moral sense of duty, but there might a good reason of which the hearer is unaware. In its direct form this could lead to a surface form:

Please do X because of Y.

However, if the hearer knows that we want them to do **X** but is unaware of the reason why the speaker wants the hearer to do **X**, then what does the speaker say? If he repeats the above formula then a violation of the "be informative" maxim occurs. The example below illustrates what usually happens in such circumstances:

Taken from (Maltby and Boublil 1989) which depicts the fall of Saigon at the end of the Vietnam war. The American troops are pulling out and thousands of Vietnamese want to be airlifted out of the country (hence it is obvious what the speakers are pleading for the hearers to do):

(11) One Vietnamese: Take me with you! (The direct form)

(12) Another: I have a letter look!

(13) Another: I helped the CIA.

(14) Another: I have an aunt in New York.

...

(15) Another: I have gold I can pay.

(16) Another: They'll kill all they find here.

In this case it is self evident that everyone wants to leave, but they have different reasons, so what happens is that indirect speech acts are used that state the reason why the hearer should do **P**.

6.3.2 Indirect Speech Acts and Authority

One type of indirect speech act that has already been discussed arises when the speaker asserts that **P** when the hearer is in a position of authority. In that situation it was described as a question (see Chapter Four), and indeed there seems to be a special linguistic form for this type of act. The declarative question is an exceptional type of yes-no question which is identical in form to a statement except that it is distinguished by a final rising intonation:

(17) You've seen the headmaster?

Quirk et al. (1973) state that a declarative question is assertive in character because non-assertive forms are inadmissible, e.g.

(18a) You've had something to eat?

(18b)*You've had anything to eat?

Declarative questions seem to apply not so much when the hearer is an authority over the speaker, but when the hearer is an authority on **P** matters (Berry's primary knower). They are possibly related to certain types of tag questions, but they are indirect because they are assertive in form and yet function as questions.

It is quite possible that certain speakers may not use them at all and they differ from direct questions in only a subtle way. Whereas a question functions thus:

Is P true? Yes or No,

a declarative question appears to function as a request for confirmation, as Quirk at al. state (op. cit. p.195). They suggest that the speaker takes "yes" or "no" as a foregone conclusion. Hence a declarative question appears to mean:

I believe that P is true, but can you confirm?

This explanation and the fact that such a form of question exists at all fit in well with the cognitive state theory.

6.3.3. Pragmatic Maxims, Politeness and Indirect Speech Acts

In order to determine just how the application of pragmatic maxims result in indirect speech acts, we first of all need to decide just what pragmatic maxims there are and how they may conflict with each other.

Grice (1975) first postulated the idea of a set of pragmatic maxims, given the broad heading of 'The Cooperative Principle'. The Cooperative Principle is subdivided into four categories of maxims:

i) Quantity. Give the right amount of information: i.e.
    1. Make your contribution as informative as required.
    2. Do not make your contribution more informative than is required.

ii) Quality: Try to make your contribution one that is true: i.e.
    1. Do not say what you believe to be false.
    2. Do not say that for which you lack adequate evidence.

iii) Relation: Be relevant.

iv) Manner: Be perspicuous; i.e.
    1. Avoid obscurity of expression.
    2. Avoid ambiguity.
    3. Be brief (avoid unnecessary prolixity).
    4. Be orderly.

Bach and Harnish (1979), adopted the Gricean maxims and included them in their Inferential Model (described in Chapter Three). They added the following useful maxims:

i) Sequencing. The speaker's contribution to the exchange is of a communicative type appropriate to that stage of the exchange.

ii) Sincerity. The speaker's contribution to the exchange is sincere in that the speaker has the attitude expressed.

iii) Politeness. The speaker in speaking, behaves politely, that is, is not offensive, abusive, vulgar etc.

iv) Morality. The speaker in speaking behaves ethically, that is, does not reveal information that he ought not reveal, does not ask for information he ought not or does not direct the hearer to do something that the hearer does not wish done etc.

If we consider relevance first of all. This is used as an assumption that what follows bears some relationship to what has gone before. It is also used to determine that something is indirect when it appears to bear no relationship to what has gone before. Sequencing on the other hand allows us to decide that a certain set of speech acts must follow what has gone before. Sequencing results from the pairing of speech acts discussed in Chapter Four. If a question occupies the primary position, then an answer is expected, and it is natural to attempt to decode what follows a question as an answer.

Sincerity may come into play in indirect speech acts where convention or politeness demands that an answer is of a certain type even if in making that type of answer one is not being sincere. An obvious example is the response to "How are you?", where convention demands that an answer of "Very well thank you", rather than "Really bad thank you" is given. There is a sort of half way house that can be used as a compromise: "Not so good" which gives some indication that the standard response is inappropriate.

Quantity may sometimes interact with the basic co-operative principle in that it is sometimes useful to give more information than has been asked for. Allen (1983) attempted to explain this computationally in terms of plan inference, where the speaker has identified a potential obstacle in the plan of the hearer and has supplied information that helps the hearer overcome this obstacle. This maxim is probably of less importance from the point of view of indirect speech acts. Quality and truthfulness likewise appear to be of only minor importance in indirect speech acts. Manner is the maxim that has often been criticised. However its inclusion is almost certainly correct as one could argue that it is a justification for the direct assumption, outlined in Chapter Five. Using direct speech acts where possible means obeying the maxim of manner whereas an indirect speech act is adding an extra layer of difficulty that has to be overcome.

6.4 Politeness and Face

Several attempts have been made to explain politeness. Fraser (1990) for example describes four alternative views of politeness.

The first of these is the social norm view (Kasher 1986) in which each society has a particular set of social norms consisting of more or less explicit rules that prescribe certain behaviour, states of affairs or a way of thinking in a context. The second view is what Fraser calls the conversational maxim view of which the basis is Grice's set of pragmatic maxims. This was applied by Lakoff (1973) who derived the following extra maxims:

i) Be clear
ii) Be polite

With the sub-rules:

a) Don't Impose
b) Give options
c) Make A feel good

However this system gives no mention of how the level of politeness is to be measured. This approach has been extensively discussed by Leech (1983) whose theory distinguished between the speaker's illocutionary goals and his social goals. Leech's work will be described in greater detail below, but to summarise: he extends the maxim of politeness into six individual maxims. These maxims are measured on five sets of scales: the cost-benefit scale, optionality scale, the indirectness scale, the authority scale and the social distance scale. The details of exactly how these measurements are made is however somewhat vague.

A further approach is the face-saving view of Brown and Levinson (1987). Brown and Levinson (op. cit. p.59) define a model person (MP), who has positive face and negative face and who is a rational agent. Positive face is seen as the positive consistent self-image, whereas negative face is seen as basic claim to territory, personal preserves and rights to non-distraction. They suggest that it will be in an MPs mutual interest to maintain face; however some acts are intrinsically face-threatening and in order to minimize the effects of such face threatening acts, individuals resort to using certain strategies that best enable both parties to maintain face.

Fraser (op. cit.) also puts forward the conversational contract view which associates deference with linguistic form (Fraser & Nolan 1981).

Kasper (1990) points out that there is no satisfactory

definition of politeness. I suggest that it is a combination of two things: firstly regard to certain behavioural norms imposed by a society. This aspect of politeness is sometimes known as etiquette, particularly with regard to eating habits. These norms may be contradictory from one culture to another, for example in British society it is considered rude to make a noise when drinking soup. On the other hand, it is looked upon favourably in Japan to loudly slurp a bowl of noodles. Smithies (1984) is a guide for Chinese in Western society on what we would call etiquette. He has the following to say on table manners:

> Slurping liquids for whatever reason, usually because they are hot, is considered vulgar in the west,..., it is safer to sip one's tea or one's soup and not to suck in air at the same time to cool either down.

Such norms don't necessarily have anything to do with linguistic behaviour. The pragmatic maxim approach has more to do with an explanation of polite language and this leads onto a second definition concerned with linguistic politeness: politeness is the use of language to express one's beliefs, wants, desires etc. in a manner that is acceptable to the addressee. One problem with the pragmatic maxim approach is that the maxims do not seem to hold for all cultures. Gu (1990) has postulated four maxims for Chinese:

i) The self denigration maxim - denigrate oneself, elevate the other.

ii) The Address maxim - it is important to use the correct form of address.

iii) The Tact maxim

iv) The Generosity maxim

iii) and iv) are more or less the same according to Leech's definitions. The address maxim is particularly important in Chinese, a society in which naming is very important. Family members for example are identified in a much finer way than in British culture and language. For example, uncles and aunts are addressed by family members from the generation below, according to their position and whether they are of the family or married into the family. In Hokkien, uncles and aunts are numbered according to seniority: tua - first, jee - second, sar - third, see - fourth, goh - fifth. Then they are identified either as

family members or in-laws: che - uncle, koh - aunt, teow - uncle-in-law, chim - aunt-in-law. For example, third uncle (the third male) is known as sar-che, his spouse would be sar-chim. Similarly, fourth aunt would be see-koh and her husband would be see-teow.

The approach of Brown and Levinson is based almost entirely on the notion of face and they have described this as a language universal, but it is far from clear that this is so. Ide (1986) cast doubt on this idea, claiming that in Japanese there is a much greater level of discernment and less of a volitional element. As I pointed out to her at the IPRA Pragamatics conference in 1987, her data indicates a form of discernment for Chinese also.

Although this work is primarily about linguistic politeness and its effect on indirect speech acts, it is worth noting that the Brown and Levinson definition of face seems inadequate to explain all cultures and cannot therefore be viewed as a language universal. In Chinese society, face is all important and quite explicit. There are however, aspects of it that don't fit into the Brown and Levinson model.

In Chinese society (primarily, Malaysian Hakka and Hokkien speaking Chinese), face appears to be concerned with the interaction between two individuals or groups in the presence of a third party. For example: consider a dinner, which is fairly formal, between a family with one daughter (or son) and some relatives (perhaps, an aunt and uncle of the daughter living abroad). It would be customary for the daughter to "call" senior members of her family before eating the meal. This consists of saying: "Father eat rice, mother eat rice ..." a ritual, where the daughter must address each family member in order of seniority. If the daughter fails to do this, then it would be considered rude (of her), but her parents would lose face for being seen not to have brought up their daughter correctly. In the absence of guests, she would merely be castigated for her lack of manners. No loss of face is involved.

In another example, a male discusses a former girlfriend with a male friend in the presence of his girlfriend. In this way, he is not giving his girlfriend face, she is seen to lose face. In the absence of his friend, whether he discusses his former girlfriends or not is a matter for him and his girlfriend, loss of

face does not come into it.

In Malaysian society, it is customary to see departing guests to the gate. Failure to do so would be seen as impolite or be taken as a snub. However not to do so in the presence of another party would be a failure to give face to the departing guests.

A man arranged to meet his wife at his place of work, but then forgot and went off to the pub with his friends. His wife on arrival was furious to find that he had already left and knowing his habits sought him out in the pub. To castigate him in front of his friends would make him lose face, so she waited until he got home before doing so. Such an act, by Brown and Levinson's definition is face threatening, and yet in Chinese society, it only involves a loss of face in the presence of a third party. Clearly, there is something wrong with their definition of face.

It is not quite as simple as this however: consider two individuals of the same rank in a loosely knit environment, such as an academic environment. **A** upbraids **B** for something privately, and at a later date, **B** asks a favour of **A**. In Chinese society, it would be said that **B** has not given himself face. **A** would realise that **B** is not giving himself face. This is almost a reflexive form of face. So although, it is often the case that face gain or loss takes place in front of a third party, it is not always so.

However, the model definitely does not fit with the Brown and Levinson model of face. Many of the examples used were only face threatening acts when performed in front of another party. A face threatening act (by the Brown and Levinson definition) such as the wife telling off her husband is only face threatening in Chinese society when used in front of a third party. Despite all that, some of the strategies described by Brown and Levinson are interesting with reference to indirect speech acts.

Returning to the problem of indirect speech acts and politeness, clearly some of the face threatening acts described by Brown and Levinson are often uttered as indirect speech acts, however, it seems unlikely that these acts are totally independent of culture. An act which is face threatening in Japanese society is to ask someone a question about their performance in say an examination. If they have to answer that they have failed, then they lose face, hence such a question is never asked. The same

does not apply in British society. The general thesis that will be presented is that indirectness is used for a variety of reasons, but some of the more important reasons are: conflict of maxims, speech act minimisation and conflicting presupposed cognitive states.

6.5 Strategies For Indirectness Based On Cognitive States

First of all, let's consider some very simple speech acts and their responses. Leech (op. cit. p.112) describes conflict in descending order of severity:

1. **Actual Conflict** (strongest).
   i) A makes B do X, but B tries not to do A.
   ii) A stops B from doing X, but B tries to do it anyway.
2. **Disobedience**.
   i) A tells B to do A, but B does not do A.
   ii) A forbids B from doing A, but B does A.
3. **Will Flouting**.
   i) A communicates to B that A wants B to do A, but B does not do A.
   ii) A communicates to B that A wants B not to do A, but B does A.
4. **Will Incompatibility** (Weakest).
   i) A communicates to B that A wants B to do A, but B communicates to A that B does not want to do A.
   ii) A communicates to B that A wants B not to do A, but B communicates to A that B wants to do A.

Clearly, conflict is to be avoided where possible. Leech's politeness maxims are an explanation of strategies to achieve just this.

He postulated six maxims of politeness that he says explain polite behaviour and these go together to form the Politeness Principle. His six maxims of politeness are:

i) The Tact Maxim, in which the speaker attempts to minimize the cost to another and maximize the benefit to another.
ii) The Generosity Maxim, in which the speaker minimizes the benefit to himself and maximizes the cost to himself.

iii) The Approbation Maxim, in which the speaker attempts to minimize dispraise of another and maximize praise of another.

iv) The Modesty Maxim, in which the speaker minimizes the praise of himself and maximizes dispraise of himself.

v) The Agreement Maxim, in which the speaker minimizes disagreement between himself and another and maximises agreement between himself and another.

vi) The Sympathy Maxim, in which the speaker minimizes antipathy between himself and another and maximizes sympathy between himself and another. (Leech op. cit. p.132)

Leech then suggests that the maxims that comprise the Politeness Principle plus the maxims of the Cooperative principle go together to form what he calls the Interpersonal Rhetoric (Leech op. cit. p.149). He then describes how this may be applied to define what he calls the pragmatic force of an utterance.

One problem with Leech's set of politeness maxims is their lack of universality, Gu for example (see section 6.4), postulated a set of politeness maxims for Chinese that differ from those given by Leech. However, Leech's ideas are very interesting and as he states (op. cit. p.171), they provide us with an alternative in speech act theory to sets of speech act rules (for example, Searle's essential conditions, preparatory conditions and sincerity conditions of illocutions).

If we now consider these politeness principles when applied to assertives, such as one might find opening a conversation between strangers, then most people would start of with a fairly innocuous statement such as:

(19a) Nice weather we're having aren't we?

(19b) Its lovely here isn't it?

Considering Leech's maxims in turn: the tact maxim and generosity maxim aren't applicable for opening line assertives. The third maxim, the approbation maxim if applied, may be treated with suspicion in most circumstances as people often think that when a relative stranger comes up to them and flatters them, his action is being driven by some ulterior motive.

The fourth maxim - the modesty maxim can be used with assertives, but it seems rather strange to launch into a tirade

against oneself to a perfect stranger. The sixth maxim - the sympathy maxim is only applicable in certain circumstances, sympathy is not always welcome. The fifth maxim, that of agreement is the safest, because the best way to avoid conflict is to reach agreement on something.

Consider the speech act: **Assert(P)**. This is perfectly safe assuming that **P** is not controversial. One way of making sure that this will be so, is a statement of the obvious, e.g. statements about the weather. There even appears to be a surface form that facilitates agreement, i.e. Tag Question 1 (see Chapter Five and Quirk et. al. 1973). A form such as:

(20) Its nice here isn't it?

actually seems to invite agreement. This therefore appears to be the safest form of utterance that it is possible to make, one which no one is likely to disagree with.

In a sense what is happening, particularly with a tag question is that the speaker is not only conveying the cognitive state: **bel(S P)** but is also inviting the response that the hearer agrees. The speech act expressed in this way (as a tag question) appears to make it possible not only to convey the cognitive state but also the preferred response.

Let's now consider some other common responses: firstly where the hearer believes that **poss(P)** but is not absolutely certain. Without violating the maxim of quality, one could go along with the agreement maxim with a response such as:

(21) Perhaps,Yes. (Rising tone).

On the other hand if the hearer does not really believe that **P**, then without (completely) violating the quality maxim, he could respond:

(22) Well, perhaps.

Note the use of the marker to signal an unfavoured response. If however that hearer definitely believes that **~P** then the response appears abrupt, even rude:

(23) A: We've been having nice weather this year, haven't we?

(24) B: Actually, I think its been awful.

A response that indicates that the hearer cannot accept **P**, and yet does not want to appear too rude might be one such as:

(25a) B: Oh, I'm not so sure.

or

(25b) B: Do you really think so?

Asserting that **P**, particularly where one is inviting agreement appears to be the safest form of utterance as it is positively inviting agreement, thus ensuring that conflict will be avoided.

Another form of speech act that seems relatively safe in that it is unlikely to lead to conflict is a suggestion (of something pertaining to some neutral topic as in the examples given above). When making a suggestion we are stating that although we believe that **P** may be true, we are not certain. Suggestions are more neutral than assertions because they don't invite agreement (they leave the hearer open to disagree without conflict). Suggestions don't seem to involve the use of tag questions in the same way as above, however the falling tone tag question appears to indicate doubts about **P** e.g.

(26) He likes his food, doesn't he?

But rising tone tag questions don't appear to be used to make suggestions, except in the rather clumsy form:

(27) He might leave tomorrow, mightn't he?

It is easy to agree with a suggestion, because in doing so, one is not making an absolute commitment. However, there are pitfalls, for example, by either agreeing or disagreeing, one gives the impression of proclaiming oneself as an authority on **P** matters.

The next major category of speech act is the set of commissive acts, for example **promise**. When making a promise, one is obligating oneself, and not someone else, hence, I suggest that commissive speech acts are not often used indirectly, except perhaps where the speaker promises to do something that he shouldn't really do and once again, this is guided by a pragmatic maxim - the morality maxim.

Questions involve a higher degree of work by the hearer than simple assertions and hence impose a greater "obligation" on the part of the hearer. It is very easy to agree with an assertion that is obvious without saying very much about oneself, but answering a question involves doing some work, arriving at a truthful answer for something. Hence a greater focus or obligation is placed upon the hearer. Some societies place emphasis on the avoidance of answering questions negatively (e.g. Japanese),

hence a question appears to be more "emotionally loaded" than an assertion.

If responding to questions involves a higher degree of commitment from the hearer than does responding to assertives, then requests certainly involve a greater degree of commitment than questions. This gives us the hierarchy:

request > question > assertive

Indirection goes on a downwards gradient (from left to right), but it is worth asking the question why this should be so. It is likely that refusing to carry out a request involves a potential conflict, or at best a loss of face. The worst that can happen with a question is that it is answered negatively, which can be awkward, but not as bad as refusing to carry out a request. If an assertive is not controversial then agreement can readily be reached, the safest form of linguistic interaction. Consider an example, a hint:

(28) A (Standing outside in the rain waiting for a bus, meeting an acquaintance who has a car): Its raining hard tonight isn't it?

A is hinting that he would like a ride home in the car, but cannot use a direct request. Lets consider the direct request, it can either be accepted or refused. If it is refused, then it is for one of two reasons:

B cannot give A a lift home (because he is going in a different direction or has to stop off to do some shopping or is going to visit his mistress, there can be many reasons).

B does not want to give A a lift home (because, for example B finds A boring, or A has halitosis, again there can be many reasons).

Clearly, **can't** is a better reason than **won't** and under normal circumstances an individual does not want to be put into a position where they have to admit that they won't do something in response to a request.

The strategy of hinting allows **B** a way out if he does not want to give **A** a lift. **B** can agree with **A's** assertion and that is that. **B** drives off and **A** is left perhaps feeling somewhat annoyed with **B**. But he is not absolutely certain whether **B** did not want to give **A** a lift or whether **B** was merely insensitive.

On the other hand turning the request into a question is less desirable:

(29) A: Are you going home via Stotfold?

or worse still:

(30) A: Can you possibly give me a lift home?

The strategy of using a question is worse because it potentially reveals the reason why **B** does not comply with the request. If **B** can give **A** a lift home, but does not want to, then he has to resort to one of two responses:

(31) B: I'm sorry I can't, I've got to pick up my son first (breaking the quality maxim, by lying)

(32) B: I'm sorry, but I'm not prepared to give you a lift.

In the first case **B** is forced into lying, something he probably feels uncomfortable about doing, in the second case, it is going to lead to a deterioration in relations between **A** and **B**. Of course **B** might unwillingly comply in order to avoid worsening relations, but in any case **B** feels "put upon".

Using a hint is the safest strategy, because it allows both parties a means of by-passing the request altogether. This can be achieved by a mechanism that I will call **request cancellation**:

(33) A: Its raining heavily tonight isn't it?

(34) B: I'm sorry I can't give you a lift, I have to go to pick up my son.

(35) A: Oh, sorry, I didn't mean to imply I was asking for a lift.

(36) B: That's OK.

The implied request is effectively cancelled by both parties. This raises the interesting question of why hints are used only in certain situations. For example in the standard case of : **Can you pass the salt?** Why would a hint such as: **The salt is next to you.** not be used instead. There are perhaps two reasons for this: firstly, this is a case where the speaker knows that the hearer is unlikely not to comply with the request. Perhaps this explains why:

(37) Can you pass the salt?

seems OK, whereas

(38) Will you pass the salt?

seems rather rude.

This appears to suggest that in a situation where the speaker

knows that the hearer is unlikely to say "No, I won't service your request" then it is acceptable to ask a question, because the worst that can happen is that the hearer will say "No, I can't do X". Answering "no" to a question is far better than answering "no" to a request. So, why then does it seem strange to use a hint such as:

(39) The salt is next to you.

as a form of request? An obvious answer might be that it is because the form **Can You X?** is a standardized form. If that is so, then we still need to delimit the cases where it is acceptable to use: **Can you X?** as opposed to hinting. I suggest that where one assumes that the hearer is not likely to refuse the request, then the form **Can you X?** is acceptable, but where the request is a favour, then the hinting strategy is more acceptable because it allows a strategy that enables the hearer to get out of revealing the state: **~want H (do (H,P))**. Perhaps also, a reason why a hint used in the salt passing request seems rude might be because it implies a possible unwillingness on the part of the hearer to carry out a simple social act. This in turn would imply that the hearer is anti-social which would be regarded as offensive by the hearer (hints used in this way are fairly common in classrooms, i.e. teacher to pupil exchanges:

(40) The window is open.

Perhaps the reason why this is so is that it is used as a form of pedagogic strategy to help pupils develop a sense of social awareness to the needs of others).

When we look at the form: **Can you P?** it is not so much a conventionalised/standardized act as a finely tuned form of politeness that is correctly formed so that it avoids appearing imposing or intrusive (as a request might). It also avoids implying possible anti-social behaviour on the part of the hearer. We can now summarise this strategy as follows:

1. Speaker states that some state of affairs P obtains that is

a) known to the hearer,

b) easily recognisable as a state of affairs that is bad for the speaker, and

c) a state of affairs that the hearer can possibly remedy.

2. Hearer can:

a) fail completely to recognise the assertion as a hint.

b) recognise it as a hint and offer to do Q which alleviates the consequences of state of affairs for speaker.

c) recognise it as a hint, but be unable to do Q.

d) recognise it as a hint, but not want to do Q.

2a. Hearer agrees with speaker, end of exchange sequence.

2b Hearer offers to do Q. Speaker (presumably) accepts, unless there has been a misunderstanding.

2c. Hearer may:

i) apologise for not being able to Q and give reason. After which speaker has the option to "cancel" the request by saying the equivalent of "I didn't mean to imply that I wanted you to do Q".

ii) not want to reveal the reason for not being able to do Q and either lie or resort to strategy 2a. Alternatively the hearer may resort to a strategy that implies that at some other time he might have been able to do P, but not today. e.g. "I'm sorry, I can't give you a lift today, some other time perhaps."

2d. Hearer will either lie and adopt strategy 2ci or resort to strategy 2a. The direct response is normally unacceptable.

In accordance with this schema, the "worst" that can happen is that the hearer has to choose between the potential snub (2a) and a lie in order to conceal the reason why he cannot do Q.

I suggest therefore, that the reason why hints are used is that it avoids having to rise to the level that Leech called **will incompatibility**, which would happen if the hearer had to reveal that he did not want to do Q (which is requested by the speaker). Furthermore it gives the hearer a means of getting round having to lie.

The analysis suggests that we cannot treat all requests in the same way, I suggest that a simple (though possibly incomplete) taxonomy of requests might be:

i) Request Confirmation. (To a person who is an authority on P, I believe that P, can you confirm?)

ii) Request Information. Here the speaker wants to know **P**. He is asking the hearer to tell him about **P**.

iii) Request Action. The speaker wants the hearer to do something.

iv) Request Transaction. Used in transactions, where the speaker wants to buy **P**.

Case 1 was described above, it is the situation where the speaker wants confirmation that **P** is true. The speaker believes that **P** may be true and knows that the hearer is an authority on **P** matters and uses a declarative question typically, or a tagged question.

Case 2 arises when the speaker wants to know something and the important question is whether the hearer knows **P** (there is a further possibility regarding whether the hearer is permitted to tell the speaker **P**). This case typically involves indirect speech acts such as: **Can you tell me P?** Addressing the necessary precondition once again as an indirect speech act(it also works when the speaker wants to know if the hearer is permitted to tell him about **P**).

Case 3 is the "normal" request, here there are two important conditions: that the hearer can do **P** and that the hearer wants to (or is willing to) do **P**. The argument that I have put forward is that for a request which it is assumed the hearer would not normally refuse to service, then a question regarding ability to do **P** can be asked. If however it is a favour, something that the hearer might not want to do, then in order to give the hearer a way out, a means of disguising the fact that he does not want to service the request (what Leech calls will incompatibility), then a hint is used. The hint has the virtue of also giving the speaker a way out, in that he has a pathway that enables him to claim that he was merely making a comment (see the schema above).

With increased familiarity between speaker and hearer, the likelihood of using questions or even direct forms increases, however this is perfectly acceptable within the theory presented. For example, I always give my friend a lift home when he requests it: in this case it seems natural for him to use the direct form. On the other hand, I usually give my friend a lift home, but sometimes I can't due to other commitments, in this case it is more likely that a question would be used. However if this same

friend wanted to borrow money, then this would take our friendship onto new ground: he would be likely to use a hint for the simple reason that he would not know how I would react to a request to lend him money, and if I say that I won't lend him money, it strains the friendship, even if I can't it may put the friendship on more difficult ground, hence the need for a hint. Here the hint may also serve as a mechanism that can be used by the hearer to explain why he cannot service the request. At the same time the speaker can then claim that he was not making the request anyway, this enables both parties to arrive at a form of equilibrium, maintaining honour or face intact.

Case 4 is used almost exclusively for transactions involving sales: here the indirect form is: **Have you got P?** The assumption is that the vendor will want to sell **P** if he has it, also that he is able to sell it. What may not be known is whether he has **P** to sell. Note that it is perfectly acceptable to use the direct form when it is obvious that the vendor has **P**. **May I have P, please?** is not in the least bit impolite.

To summarise the indirect strategies for requests: we may view a request as a "plan" in the sense used by Allen (1983,1987): a sequence of operations to achieve a goal. In order to execute the request plan, we need to know (depending upon the type of request) that the hearer can do **P**, and that the hearer is willing to do **P**. However, finding this out is a problem because the hearer may not want to tell us that he is not willing to do **P**. This is solved by using the hint schema described above. The exact surface form type of the request is determined by the obstacles that we perceive in the way of a successful execution of the request. Politeness considerations mean that we do not want to test for will incompatibility directly.

The idea of request plans or schemas also explains pre-requests as something totally compatible with speech acts, hence the assertion made by Levinson (1983) that pre-sequences challenge speech act theory is incorrect.

The other question connected with the strategies surrounding requests: is how is the surface form decoded as a request?

Brown and Levinson (op. cit. p. 213) are incorrect in their assertion that a hint violates the maxim of relevance. It does

not, for if it did, it would be impossible to distinguish from truely irrelevant responses. We assume co-operative behaviour and hence that sequencing and relevance maxims will be obeyed. Therefore when giving a hint we assume that the hearer will recognise it as relevant to the current context.

Having spent some time examining requests and why they are often performed indirectly, it is worth examining some other indirect speech acts. Searle identified certain other types that he thought were conventionally indirect: for example sentences concerning the speaker's wish or want that the hearer will do **P**; e.g., **I want you to do P**. This particular act appears to be a direct communication of the desired affect. The effect of a directive act is that it is an attempt to get the hearer to do something, and in most cases, the speaker conveys the fact that he wants the hearer to do **P**. This is similar to the case where the speaker directly states the purpose of an assertive: **I want you to believe that P**. Thus it appears that another way of expressing oneself directly is to explicitly state the cognitive state conveyed by the speech act. The problem with the utterance: **I want you to do P** is that it is not clear which speech act it is being used to perform; whether it is a suggestion or an order for example. Almost all directives convey in one form or another the fact that the speaker wants the hearer to do **P** and because of this, if the speaker states directly that he wants the hearer to do **P**, it might not be clear to the hearer with what degree of force (to use classical speech act theory terminology) the speaker wishes express this cognitive state (e.g. should it be a request or a command). Hence it tends to come over as rather impolite. There is a tendency for the hearer to interpret the direct form of the cognitive state in its most imposing (speech act)form, i.e. as an order or command.

Another indirect form mentioned by Searle is that of a question about the hearer's reasons for doing something, e.g.

(41) Is it really necessary for you to make so much noise?

By questioning the reasons why the hearer is doing **P**, the speaker is implying that he would rather the hearer not do **P**.

Further ways of asking someone not to do something include forms such as:

(42) Must I ask/tell you to take out the garbage?

I suggest that the reason why this form is used is that there is a contract between the speaker and hearer that the hearer will normally do **P** and in this case has failed to do so. This is an extra knowledge state relating to **P**. This form is barely acceptable as it is not very polite, but it would be odd if there were no assumption between speaker and hearer that hearer normally does **P**.

Two questions remain with this approach: firstly, how do the indirect speech acts relate to the Gricean maxims and secondly, how can we measure levels of politeness, with particular reference to indirect speech acts?

6.6 Indirect Speech Acts and Pragmatic Maxims

Possibly the two most important pragmatic maxims are the maxim of relevance and the sequencing maxim. These are paramount because they are inviolable if a rational conversation is going to take place. We have to assume relevance because without it there is a violation of the communicative presumption (that the speaker is speaking with some identifiable communicative intent). If we consider the example used by Searle as a response to a proposal:

(43) I have to study for my exams,

then although this appears to violate the relevance maxim, it does not in fact do so. If we take the sequencing maxim in conjunction with the relevance maxim then we will see why this is so. The sequencing maxim may be defined in terms of a pairing between primary speech acts and appropriate secondary speech acts. It also ensures the continuation of the primary-secondary sequence as well as controlling new topic introduction. To change topic when an answer to a question is expected is seen as a violation of the sequencing maxim, and is also seen as being evasive. It is the relevance and sequencing maxims that give the discourse its coherence.

The sincerity maxim ensures that when people do things such as make promises, they intend to carry them out. Clearly it is desirable to obey this maxim because violation implies insincerity. It is also desirable to ensure that an utterance does not push someone into a violation of this maxim. For example, when making a request, the response requires some form of commitment by

the hearer. If the hearer does not want to service the request, then he either has to say so, or violate the sincerity maxim, which is undesirable.

The maxim of quantity ensures that the speaker provides enough information, not too much, not too little. If we stand by the co-operative principle: that people co-operate with each other by inferring each others wants and beliefs, then sometimes the quantity maxim has to be violated. Allen (1983) described a computer model that produced "helpful" responses: those that arose as a result of inferring the speaker's goals and plans and providing information to enable them to achieve those goals. The example used was:

(44) Traveller: Can you tell the time of the next train to Rochester?

(45) Clerk: At 18.30 from platform 5.

In a sense, the clerk's response is "indirect": it is not a strict answer to the indirect interpretation of the question.

(46) T: (Direct) Can you tell me the time of the ...?

(47) T: (Indirect) What time does the next train to ...?

(48) C: (Direct) At 18.30

(49) C: (Indirect) At 18.30 from platform 5.

Strictly speaking it is not indirect because the direct response is directly coded in the surface form, but it also includes additional information and one could argue that it makes it a form of indirect speech act. It also violates the quantity maxim in that it is providing more information than the question strictly asks for. Here a conflict is set up between being co-operative and obeying the quantity maxim. To violate the quantity maxim is not as serious as violating say the relevance maxim or the sincerity maxim.

It is difficult to know where to draw the line with the co-operative principle however. For example, I travel into London almost daily and usually buy a one-day ticket. However City University is within walking distance of Kings Cross, so I only purchase a rail ticket. However, most people would use the underground and could save themselves money by buying a composite ticket, a travel card. So the following often takes place:

(50) P: A return to Kings Cross please.

(51) Clerk: Do you want to use the underground?

(52) P: No

(53) Clerk: (Provides ticket)

The co-operative principle obviously has to involve certain generalisations.

The quantity maxim can be violated in other ways: by either asserting something that you know to be true, or asking a question to which you know the answer. These occur when using certain indirect strategies: a hint sometimes involves asserting something that is known to the hearer, e.g.

(54) Its raining hard tonight isn't it (Can I have a lift?).

The conventional/standardized form of making a request by asking a question sometimes means that the answer to the question is already known.

I suggest that the fact that the quantity maxim has been violated is coincidental; consider the following hints:

(55) Its raining heavily tonight. (Violation of the quantity maxim).

(56) I'm really short of money at the moment.

The first involves a violation of the quantity maxim, but the second probably does not. This suggests that the violation occurs not as a strategy, but because there is no other choice.

The maxim of truthfulness is one that should not violated, for obvious reasons. It is not generally acceptable to be thought of as being a liar. If the speaker asks the hearer something that the hearer does not want to tell the speaker, or if the speaker asks the hearer to do something that they do not want to do, then the hearer is faced with the prospect of either refusing to tell or do whatever the speaker wants him to do. Alternatively, the hearer can lie, but neither of these alternatives is very desirable.

A violation of the maxim of manner results in a greater possibility that the speaker will be misunderstood. It is acceptable, indeed necessary when shouting a warning to use a very direct form, e.g. **Watch out!** However, when using an indirect form the maxim of manner is violated, but this is not always a bad thing. It may be associated with being evasive, but it may also be associated with being tactful or polite.

The maxim of politeness assumes that the speaker uses the

correct level of politeness. Leech (1983) has attempted to analyse this maxim further. Brown and Levinson (op. cit. p. 4) argue against this approach because it is likely to result in a proliferation of maxims with the result that pragmatic theory will become totally unconstrained. There is some virtue in this argument, because Gu (1990) has indicated that Chinese requires separate maxims to those defined by Leech. If it becomes necessary to define new politeness maxims for every language then we are possibly attempting to view politeness in the wrong way.

The alternative is to represent politeness in terms of the other maxims, which is what Brown and Levinson have attempted in their set of strategies. However they appear misguided in their attempt to explain everything in terms of face and face threatening acts for three reasons: firstly, as Ide (1986) pointed out, Japanese for example, appears to involve a greater element of discernment. Secondly, the concept of face does not match all cultures (see the arguments and examples above). Thirdly, it is possible to realise tensions between the other maxims that often result in very good reasons why indirect speech acts are used, for example a speech act that attempts to force someone to reveal information that they prefer to keep to themselves.

The final maxim (used by Bach and Harnish) is the maxim of morality. There are two aspects to this, firstly things that the speaker ought not to reveal. Secondly, the speaker should avoid putting the hearer into the position where he has to reveal something he ought not to, or to have to do something he does not want to do. The maxim of morality comes into play when considering the strategy for hinting when making a request.

A difficult remaining question is how can we measure politeness, particularly in terms of indirect speech acts? Leech (op. cit.) suggests a set of scales:

i) The Cost-benefit Scale.

ii) The Optionality Scale.

iii) The Indirectness Scale.

iv) The Authority Scale.

v) The Social Distance Scale.

The cost-benefit scale is a measure of the cost or benefit to the hearer of complying with the utterance. For example the utterance (Leech op. cit. p.107) **Peel these potatoes** involves a cost to the hearer (of having to do some work). On the other hand an utterance

such as **Have another sandwich** has an obvious benefit to the hearer. Given in their bare form as imperatives when there is a cost to the hearer, an utterance such as **Peel these potatoes** is hardly polite. On the other hand **Have another sandwich** is polite as it stands. Leech points out that somewhere on the scale there is a change from cost to hearer to benefit to hearer and there is a general increase in politeness.

The optionality scale is concerned with how much choice the speaker gives the hearer. **Sit down!** gives the hearer less choice than **Would you like to sit down?** The more choice the speaker gives the hearer, the more polite (in general) the utterance is.

The indirectness scale can be measured in terms of how many inferences the hearer has to make in order to arrive at the intention behind the utterance.

The authority scale is a measure of the authority that the speaker has over the hearer, or vice versa. The social distance scale is the overall degree of respectfulness that the speaker has for the hearer, based upon familiarity between the speaker and hearer plus other factors such as respect for age etc.

Of the five factors, I have already considered to some extent the degree of authority; but I do not accept indirectness as a measure in its own right - it appears to come about because of other factors but the first two factors are of some significance. In order to throw some light on measures of politeness, I want to return first of all to the strategies of indirectness that are used for one particular speech act which I shall expand upon in the next section.

6.7 A Schematic Model of the Speech Act "Request"

Throughout the thesis, I have been developing a model of speech acts based upon the idea of states or cognitive states that are necessary in order to:

i) determine the underlying intent behind an utterance.

ii) determine what the speaker needs to know, believe or think in order to make a particular speech act.

iii) determine, to some extent, the possible types of response that the hearer may make.

i) says that the speaker communicates beliefs, intentions, wants

etc. to the hearer. For example, when requesting **P**, the speaker communicates to the hearer that he wants the hearer to do something.

ii) is a mutually shared set of facts about an utterance that enable the speaker to make a particular type of speech act. For example, when making a request, the speaker believes that the hearer might be able to do **P**.

iii) are certain things that the speaker knows about the hearer in order to understand the hearer's responses to the speech act. For example, in making an assertion, the speaker knows that it is possible that the hearer will not believe him. This enables the speaker to recognize a response which effectively questions the speaker's belief in **P**.

I put this information together in Chapter Three in the form of an outline schema. I then used the communicated cognitive state in Chapter Four to show the range of possible response that the hearer could make to the the speaker's original speech act. Then in Chapter Five I outlined a sketchy account of how particular communicated cognitive states map onto surface forms.

In order to include indirect speech acts, together with an account of pragmatic maxims, it is necessary to add to the schema a set of "schematic plans" which determine how the speech act should be delivered within a particular language community. A schematic plan is an outline plan of action that is used to ensure the successful expression of a particular cognitive state in terms of the most appropriate form in accordance with politeness norms. I shall now examine the schematic plan for the speech act **request**.

REQUEST

In this description of **request** I shall be somewhat liberal; strictly, some of the conditions may arguably belong to **tell** or **ask**.

Firstly, I will use the schema outlined in Chapter Three:

Action: SPEAK(S H want(S do(H P)))
Cognitive States: 1) know(S ~do(H P) -> ~P)
2) ~want(S bel(H O(do(H P))))
3) bel(S poss(do(H P)))
Presumed Effect: know(H want(S do(H P)))

This tells us what is being communicated (that the speaker wants the hearer to do **P**). Secondly it tells us what the speaker needs to know before generating the speech act: that if the hearer doesn't do **P**, it won't get done, furthermore that the speaker does not want the hearer to believe that he has to do **P**. Perhaps we should also add the fact that the speaker wants the hearer to do **P**. Finally, it includes the fact that the speaker knows that the hearer **may** do **P**, but does not have to.

In addition to this we need to add a schematic plan that enables the speaker to deliver the request in the most acceptable surface form within the language community. The ultimate aim of the schematic plan is to convey to the hearer that we want something from him: this may be a request for information (such as the time), a request for the hearer to do something (such as passing us the salt or giving us a lift in a car), a request for the hearer to ensure that a certain state of affairs comes about (such as requesting that someone is informed of something) or requesting that the hearer gives,sells or allows us to use something. There are probably other forms, such as requesting that the hearer gives us permission to do something.

Within this schema, there is information about the authority relationship between speaker and hearer, there is also some measure of social distance between speaker and hearer. The assumption is that if the hearer is not able to service the request then the hearer is subject to a loss of face, however small. For example if we ask for something in a shop and the assistant is unable to supply us with what we want, then a small apology is in order. Worse, if the hearer is unwilling to service the request then a situation of will incompatibility exists. Therefore the plan schema ensures that the preconditions for the request are established before making the request, the pre-request pattern is one example of this. There may even be a morality problem with requesting the hearer to do something that we know is wrong (morally or illegally). This gives us the following:

i) want (S know(P))

Precondition: know(H P)

ii) want(S do(H P))
Preconditions: poss(do(H P))
will (do(H P))

iii) want(S do(H P)) P = a transfer of ownership of an object
Preconditions: poss (do(H P))
will (do(H P))
has(H P)

ii) also includes acts that could be immoral or illegal, in which case the same basic problem exists - of whether the hearer is willing to do the act in question.

If we take the first case, that of a request for information, then the precondition is that the hearer knows whatever the speaker requests, the standard indirect form for such requests is:

(57) Can you tell me the time, please?

(58) Have you got the time please?

In both cases, the speaker is attempting to check the precondition, In certain cases, the hearer may not be able to give the speaker the information requested, for reasons of confidentiality, in which case the first of these forms is appropriate. (It is worth noting here that the modal auxiliary **can** can be used to denote both ability and permission, and hence may have a double meaning; of both questioning ability and requesting permission.)

I have already given an outline strategy for the second case in which the speaker requests the hearer to do something. The precondition of the hearer's willingness to do **P** overrides the hearer's ability to do **P**. The speaker must judge the hearer's willingness to do **P** based presumably on factors such as social distance (in some societies obligation comes into play as an important constituent, e.g. Chinese society), the cost of the act to the hearer (lending money has a high cost, whereas passing the salt at the table is of minimal cost and is a social nicety.) The speaker will also judge whether to use a hinting strategy referring to the fact that the hearer has serviced a request of this kind before. I suggest that everyone has their own

threshhold as to whether they use the hinting strategy or request by use of a question, but the rough formula

Cost to Hearer - Social Distance > Threshhold

seems to apply when deciding to use a hinting strategy or to make a request using a question. The hints themselves take the form of:

i) **Speaker states a state of affairs that is bad for him and that the hearer can rectify. (e.g. I'm getting very wet waiting for this bus.)**

ii) **Speaker states a state of affairs that he would like to see obtain. (e.g. I really need to be home in bed with this cold.)**

An obvious question to ask at this point is why a hinting strategy seems rude in a situation where the hearer would not normally refuse to service the request? e.g.

(59) The salt is next to you and I can't reach it.

I suggest that this might be because by making a hint, the speaker implies that the hearer might not be willing to do **P** and this is the same thing as hinting that the hearer might not be willing to observe the accepted norms of social behaviour, something which might be taken as rather offensive.

Another related question is why is the direct form not used, after all, given that we assume that the hearer will observe social norms, why is it necessary to resort to a question rather than a direct request? In situations where the social distance is great, then, however small the cost is to the hearer, it is not acceptable to use a request if an acceptable indirect form exists.

Additionally, a problem with the bald imperative (i.e. **pass the salt)** is that it uses no form of address and I suggest that a form such as **Can you pass the salt?** is used because it uses a form of address. (There is a possibility that it may stem from the use of "you" as a polite form in old English, in the same way that "vous" is used to indicate social distance in French, however this is pure speculation). The modal **can** is used because others are pragmatically loaded in ways that makes their use inappropriate, e.g **will**.

The indirect form: **Can you do P?** may be contextually dependent (Sinclair and Coulthard 1975), e.g.

(60) Can you juggle with three objects? (Speaker holding three skittles)

It may also be ambiguous, e.g., speaker to hearer in a Japanese

restaurant:

(61) Can you speak Japanese? (To Hearer who shows a marked preference for Japanese food)

The final form of request is where the speaker wants to have or use something possessed by the hearer. The form of indirection is heavily dependent upon the type of transaction that is to take place. In a situation where the hearer is willing to sell the item to the speaker, then the form:

Have you got P?

is perfectly acceptable. On the other hand, if the speaker wants to borrow something owned by the hearer, then the same sort of considerations apply as do the case where the speaker attempted to assess the hearer's willingness to do **P**. If the cost is great and the social distance is not sufficiently near then a hint may be used,e.g

(62) The trees at the back of my garden are overhanging and cutting down the light to my rockery. (May I borrow your wood saw?)

Requests - Other Forms of Indirection

Other forms of indirection exist in connection with requests. These seem to take the following forms:

i) **Speaker states desired effect of request. e.g. I want you to leave the room.**

ii) **Speaker states or emphasises a precondition state of the requesting act. e.g. If you don't stop smoking, then we'll all get cancer. (Specification of the case where the speaker states that if the hearer doesn't do P, then ~P will obtain)**

iii) **Speaker states the communicative act directly. (For a request, this is the same as the desired effect, but in the case of an assertive, the desired effect is: bel(H P), whereas what is being communicated is: bel(S P)).**

There are various reasons why these forms might be used. Although by the strict definition of speech acts the first of these cases is indirect, it come across as a very direct form of

speaking. The third case in particular is almost akin to the performative hypothesis. Perhaps the reason why there is such an argument is that it is possible to state the desired effect of many speech acts directly with greater or lesser success, however to suggest that a surface form such as

(63) Leave the room

has an underlying structure

(64) I imper that you leave the room

is in my opinion misguided. I suggest that the reason why many speech act verbs can be expressed performatively is that in many cases it is possible to directly express the desired effect. Hence an assertive,

(65) The moon is made of green cheese,

becomes

(66) I believe that the moon is made of green cheese.

or in the first case,

(67) I want you to believe that the moon is made of green cheese.

By directly expressing the desired effect of the speech act, the intention couldn't be clearer in the directive case:

(68) I request that you leave the room,

(69) I want you to leave the room.

Both of these forms are very much to the point and are somewhat lacking in politeness. The analogous case with assert seems very intense, giving the impression that the person making the utterance is very sincere in their beliefs.

The second case arises when the speaker gives some precondition of the act as an indirect form of the act itself. I suggest that the reasons for using this type of indirection varies according to which precondition is being used. For example with **request** it is possible to say:

(70) If you don't do P then nobody else will.

as an indirect form of **request/ask/tell.** In this case the idea behind the indirection appears to be to draw attention to the consequences of the hearer not doing **P.** When making a request it is also possible to emphasise the desire to give the hearer a choice (the precondition that the speaker does not want to say that the hearer has to do **P**),e.g.

(71) I don't want you to think that you have to do it but, could you possibly do P.

here the speaker feels he has no right to ask the hearer to do **P**, and does not want to put him under any pressure.

Other speech acts yield similar forms of indirection:

(Assert) I know you won't believe me but I just saw a UFO.

In this case the speaker is emphasising the fact that he accepts that there is little likelihood of the hearer believing him. Similar types of indirection can be found for almost every speech act verb. The reason for indirection appears to be that the speaker particularly wants to emphasise one precondition.

There are also cases where what is requested/asserted is already known to the hearer. I gave an example of **plead/beg** (Maltby and Boulblil 1989) where it was known what the speaker was asking for, but the reason why the speaker was pleading was not known.

6.8 Summary

In this section, I have attempted to deal with the problem of indirect speech acts. The final description of a speech act consisted of a schematic plan which contained an action in the form of what the speaker wants to express in terms of their beliefs or wants. Hence when making an assertive, the speaker expresses his belief in **P**. This belief may be modified by modal or deontic operators. There are also a set of preconditions (presupposed cognitive states) that express two things: those things that the speaker needs to know or to have thought about in order to make a given speech act. Secondly, they include a set of states that enable the speaker to determine (to some extent) the sort of response that they will receive from the hearer. For example with an assertive, the speaker knows that the hearer may not believe him and is prepared for this.

The speech act also contains a presumed effect, that is what the speaker hopes will happen as a result of uttering a particular speech act. Additionally, the speech act is associated with a set of plans, which enable the speaker to deliver the speech act in the most appropriate surface form by operating within the constraints imposed upon him by a set of pragmatic maxims. These plans include considerations of maintaining face, the authority

relationship between speaker and hearer and the social distance between the two. The same plans enable the speaker to recognise the type of response to the speech act.

This schematic plan as a whole works as an explanation of the meaning of a speech act verb as it describes in some detail its use within a particular language community. This may be considered an extension of the base model of speech act generation produced in Chapter Five.

This theory not only dissolves the distinction between conversational analysis theories (at the appropriate level) and those of discourse analysis, but it also describes how a particular act is to be performed within a language community. Finally, I believe that this work is of some importance as an explanation of linguistic politeness.

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Appendix I

The material contained in the appendix must at best be considered incomplete, it is an attempt to demonstrate how the idea of speech act pairings described in Chapter Four can be extended into a structure for discourse. However, it is heavily dependent upon a detailed analysis of discourse markers in conjunction with speech act pairs and this has only been achieved at a very rudimantary level. It starts with a recorded dialogue of a telephone conversation, indicating the initiation response pairs. The next section is a description of a proposed discourse grammar, along similar lines to those of Sinclair and Coulthard. The grammar is specified as a context free (Chomsky Type 2) grammar, using Backus-Naur Form, commonly used to specify computer programming languages.

Sample Dialogue

[1] A: Hello there, I rang you earlier but you were out. **[Initiation1 - Report: Possibly to explain reason for not ringing earlier]**

[2] B: Oh, **[Unexpected propositional content]** I must have been at D's mum's. **[Response1]** But we've been in a good hour and a half to two. **[I2]**

[3] A: Oh **[Unexpected propositional content]** well **[re-orientation]** I went shopping then **[R2]**

[4] B: How uz things, alright? **[I3]**

[5] A: Yes fine **[R3]** I'm ringing up about tomorrow actually **[I4]** and I'll do coffee tomorrow morning. **[I4+]**

[6] B: Itchee - Not V's **[Meta-speech act - clarification]**

[7] A: Insteada V's **[Meta-speech act - clarify]**

[8] B: Alright. **[R4 - accept commissive]**

[9] A: Coz there's no bag meeting **[I4++ - additional]** So **[Marker of supplementary material]** I thought it'll be an opportunity for me to do it. **[I4+++]**

[10] B: Yes **[R4+]** V's alright is she? **[I5]**

[11] A: Yes she's fine I popped down last night **[R5]**

[12] B: Oh that's good. She's alright. **[IR5 summary]**

[13] A: For awhile - M came with me, so... **[Repair]** How's D anyway? **[I6]**

[14] B: Yes, he went for his X-Rays on Friday. **[R6]**

[15] A: Yes **[Acknowledge - marker for R6+]**

[16] B: And we're waiting for the results, now he has to go to the doctor's on Monday for his sick note. **[R6+/I7]**

[17] A: Mm? **[R7]**

[18] B: So **[Supplementary information marker]** we'll see how he gets on **[I7+]**

[19] A: And is he any better? [I8]

[20] B: Yes his back has been much better the last two days. **[R8]**

[21] A: Oh that's good **[IR8 - expressive]** The pain's gone? [I9]

[22] B: Yes **[R9]**

[23] A: Yes **[Self orientation]** You know whether anything will show up on the X-rays, or not? [I10]

[24] B: No we'll just have to wait and see But it's better with him. **[R10]**

[25] A: Muscles I think really. [I11]

[26] B: Could have been yes [R11]

A Structure for Discourse

The notation used in this section is based upon Backus-Naur Form (BNF) used to represent computer languages. BNF is a means of representing a Chomsky type 2 (context free) grammar. Based upon the initiation-response cycle it is possible to put forward a structure for discourse. However it is not quite as simple as it first appears. At the top level of the structure is the transaction which consists of a set of exchanges:

E_p ($E_2E_3...E_n$)

where there must be at least one exchange. A transaction corresponds roughly with a topic in the conversation. The exchange then has at its heart the initiation-response pairing. The preliminary exchange has at its head a marker to introduce the topic, hence it has the form:

<topic-marker><exchange>

Then <exchange> itself consists of an initiation body followed by a response body with an optional comment body.

<exchange> ::= <initiation-body><response-body>(<comment-body>)

Initiation body consists of an initiation followed by an optional set of elaborations with an optional terminator.

<initiation-body> ::= <initiation> (<elaboration>)* (<terminator>)

Initiation itself is simply a primary speech act (defined in Chapter Four):

<initiation> ::= primary speech act

Elaboration normally occurs when the speaker continues on after the primary speech act. Each elaboration section may be connected by a connective marker, hence we have the structure:

<elaboration> ::= <connective> primary speech act The terminator of the initiation sequence occurs when the speaker indicates that he has finished and is expecting a response.

<terminator> ::= <supplementary-marker> primary speech act

The response body is quite complex and may consist of a meta-

section, a response with or without a preceding response marker. Finally it may or may not be followed by an initiation body from the hearer.

<response-body> ::= <meta-section><response-body> |
<response-markers><response> |
<response-markers><response><initiation-body>
<response><initiation-body>

The meta-section is what is known as an insertion sequence and consists of two meta-speech acts. The meta section is then followed by a normal response body.

<meta-section> ::= <meta-initiation><meta-response>

<meta-initiation> ::= primary speech act

<meta-response> ::= secondary speech act

The response itself consists of a secondary speech act (defined earlier in the section).

<response> ::= secondary speech act

(strictly speaking the idea of using context free grammar to describe the discourse structure breaks down here because the primary and secondary speech acts must be typed and hence can only be represented by a type 1 or context sensistive grammar.)

The various markers used are as follows:

<topic-marker> ::= By the way|...

The topic marker is a small set of recognized ways of introducing new topics of which **By the way** is one example.

<comment-body> ::= expressive speech act

The comment body allows the initiator of the exchange to finish with a comment which is normally an expressive speech act.

<connective> ::= and|but ...

A connective serves to attach one sequence to another, it may be competely absent.

<supplementary marker> ::= so|...

The only supplementary marker that I have been able to find is the marker **so**, but there may be others.

<response-markers> ::= <orientation-marker> |
<information-management-marker> |
<orientation-marker><information-management-marker>

<orientation-marker> ::= oh|...

<information-management-marker> ::= well|...

The dialogue structure is meant to be an outline, it is not meant to be thought of as exhaustive particularly with respect to the various non-speech act markers.

The simplest form of exchange occurs when there is just an initiation and a response:

A: How uz things, alright?

B: Yes fine.

Initiation sections may be extended, although sometimes, but not always the speaker marks where they want to end using the marker of supplementary material:

A: Coz there's no bag meeting. **[Initiation]. So [Marker] I thought it'll be** an opportunity **for me to do it. [Supplementary material]**

Meta sections occcur immediately after the initiation part and usually indicate something that needs clarifying:

A: I'm ringing up about tomorrow actually [Initiation] and I'll do coffee tomorrow morning. [Elaboration]

B: Itchee - Not V's? [Request for clarification - Meta-speech act]

A: Insteada V's. [Meta-speech act - Clarify]

B: Alright. [Response]

markers for orientation and what Schiffrin (1987) calls information management often indicate an unexpected propositional content. They may also indicate that the response does not follow the expected pattern. This may serve as a means of decoding indirect speech acts as responses.

A: I rang you earlier but you were out. [Initiation]

B: Oh [Orientation] I must have been at D's mum's. [Response]

But we've been in a good hour and a half to two. [Initiation].

A: Oh [Orientation] well [Information management] I went shopping then.