

CHAPTER THREE

The Study

Part B

Data Gathering and Preparation

In Part B the procedures used to obtain audiotaped recordings of interaction in family and school settings will be outlined, and some details of text selection and data preparation will be presented, including the conventions used in the initial preparation of the transcripts for detailed linguistic analysis.

3.10 Procedures used to obtain samples of mother-child interaction during joint book-reading

The purposes of the study obviously required that the data be as 'natural' as possible. For this reason the presence of an observer at pre-arranged times was immediately excluded. Apart from the intrusiveness of the physical presence of the observer, there was the further restriction of scheduling, and the possibility of creating an unnatural obligation for a mother to read to a child. Videorecording was not possible since it would have required unacceptable demands on the mother and an unmanageable amount of technical equipment to be distributed over an extensive time period. In any case a single camera perspective on the environment was unlikely to add much useful information because it could not simultaneously have recorded facial expression or gestures to the specific content of illustrations.

The possibility of using remote recording devices, following Wells (Wells, with Bridges et al., 1981), was excluded because time-sampling was not appropriate in a project concerned with the whole of the interaction in joint book-reading sessions. As well, for each specific occasion the mother would have had to fit herself or the child with a microphone, again limiting

the spontaneity of decision-making about when shared book reading might occur.

More positively, it has been shown in previous research that very clear, natural data can be obtained from audiorecordings made by participants at times convenient to them (Hasan, 1989). Mothers are able to position the recorder so that the sound quality is good, and to operate it so that there is usually considerable lead time before reading and associated talk commences. Further, since young children are so intolerant of changes to their expectations about what interaction routinely occurs in rather ritualized occasions of interaction such as joint book-reading, they are considerable allies in ensuring the naturalness of the data (Hasan, 1989). The fact that attention is rather focussed on language itself in the joint book-reading environment does not allow one to claim, as Hasan was able to for her casual conversational data, that the pattern of women's work prevents self-monitoring in the presence of the taperecorder (Hasan, 1989:227). Nevertheless, in the data no child displays any behaviour which may be construed as arising from atypical and/or self-conscious behaviour on the mother's part. In fact, there are many instances of mothers yawning and other physiological processes to suggest that self-monitoring is not an important factor. Children did occasionally ask to hear their recorded voices, but these interests seem to be short phases at the end of a session rather than a sustained influence throughout. The children's involvement in what is being read to them, and the engagement of both participants in conversation about these meanings, seems to have been so strong as to push awareness of audiorecording to the background.

Each participant was provided with a Sanyo M1115 taperecorder and a set of four TDK 60 minute tapes, on which they were asked to record eight occasions of joint book-reading. They were invited to destroy recordings of sessions which they felt

were unnatural, or which contained material they wished to keep private to the family.

Audiorecordings were generally of good quality. In just one case a recorder did temporarily malfunction (noise from the motor caused some loss of audibility), but it was nevertheless possible to obtain sufficiently audible data from this dyad to include it in the sample.

All except three of the original group of participants were able to record all eight sessions. Two of those who did not do so were participants from the LAP group. In one case the participant indicated that she was not actually able to read, and had volunteered to contribute in the hope that her own literacy abilities would be improved as a result of reading to her child. This mother, it emerged, attended adult literacy classes at a local TAFE college. Because some uncertainty about this participant's ability to complete the recording was apprehended during the initial interview, a third suitable participant had been included for this locality. The data from this dyad was therefore substituted in the sample.

In the second case the male partner of the participating mother was killed towards the end of the recording period, so she was only able to complete six sessions.

The third mother, from the HAP group, withdrew after one recording session because of a perception that her daughter was anxious about the audiorecorder. Since this difficulty was indicated very early in the period another family was substituted in time for completion of recording within the six-week period.

These difficulties apart, participants completed recordings easily. From the interviews and from the recordings themselves it is clear that these children were used to joint book-reading with their mothers. The fact that the recordings were completed within six weeks, and in most cases in a much

shorter time, suggests that it was a well-established and frequent practice in the sampled families. During the final visit to retrieve the recordings many mothers commented on the children's enjoyment of the experience.

3.11 Selection of object texts by mothers and children

In order to maintain the naturalness of the sessions mothers were asked to read from the usual selection of books rather than given specific texts to read. Though reading particular titles may have appeared to 'standardize' the length of reading of object text and the nature of those texts, it would have represented a considerable intrusion into usual practice. In any case the extent of object text reading was in itself an interesting specific research question. Figures 3.5 and 3.6 present the titles of object texts read within the various families in the sessions which were subsequently the subject of intensive linguistic analysis. (See also Section 3.13.)

**Figure 3.5: Titles of object texts read by mothers
LAP Social Group**

Child	Session	Title
Philip	1	<i>When the moon was blue</i>
	2	<i>The train that ran away</i>
	3	<i>The most scary ghost</i>
	4	<i>The most scary ghost</i>
Dennis	1	<i>Let's visit the dentist</i>
	2	<i>Blinky Bill and the pelicans</i>
	3	<i>The moonlight picnic</i>
	4	<i>Emily Emu</i>
Janet	1	<i>Fairy tale counting book; The little wild ducklings; Georgie and the robbers</i>
	2	<i>The missing wedding dress; Four puppies</i>
	3	<i>Hansel and Gretel; No school today</i>
	4	<i>Here a chick, there a chick; Sebastian lives in a hat</i>
Rhonda	1	<i>The value of believing in yourself</i>
	2	<i>Little Golden Book about God</i>
	3	<i>Mother Goose nursery rhymes</i>
	4	<i>The witch next door</i>
Angela	1	<i>Good night, Little Bear</i>
	2	<i>Alice in Wonderland</i>
	3	<i>The missing wedding dress</i>
	4	<i>The poky little puppy</i>
Anthony	1	<i>I can count</i>
	2	<i>What do we eat?</i>
	3	<i>My story book</i>
	4	<i>Clifford's good deeds</i>
Paul	1	<i>The saggy, baggy elephant</i>
	2	<i>Sport goofy and the racing robot</i>
	3	<i>The three little pigs</i>
	4	<i>Lily Pig's book of colours</i>
Ashley	1	<i>Theodore Mouse goes to sea</i>
	2	<i>Dumbo</i>
	3	<i>The Three little pigs</i>
	4	<i>Bernie the bear</i>
Robin	1	<i>Little Red Riding Hood; Animal counting</i>
	2	<i>Snow White and the seven dwarfs; Smurf cake</i>
	3	<i>Jump, Frog, Jump; We help Daddy</i>
	4	<i>Animal noises; Cookie monster and the cookie tree</i>
Wayne	1	<i>Peter Pan and Wendy</i>
	2	<i>The animal parade</i>
	3	<i>The Road Runner</i>
	4	<i>Santa's toy shop</i>

Figure 3.6: Titles of object texts read by mothers
HAP Social Group

Child	Session	Title
Simon	1	<i>Where the wild things are</i>
	2	<i>Unreal, banana peel</i>
	3	<i>Rescue from danger</i>
	4	<i>Hello, Kangaroo; Unreal, banana peel</i>
Stephen	1	<i>Alfie's feet</i>
	2	<i>Possum One, the outback rocket ship</i>
	3	<i>The wild baby</i>
	4	<i>Snuffy and the fire</i>
Rachel	1	<i>The three little pigs</i>
	2	<i>The zoo; Tell the time with Noddy; The best things</i>
	3	<i>There was an old lady who swallowed a fly; This is the house that Jack built; Gossip; The shoe lace book of rhymes</i>
	4	<i>The tale of Peter Rabbit; Bedtime; All by myself</i>
Benjamin	1	<i>The beast in the bathtub</i>
	2	<i>I can read by myself: Dragon and the rabbits</i>
	3	<i>I can: An early reader</i>
	4	<i>Hop on pop</i>
James	1	<i>A slice of magic pudding</i>
	2	<i>Kenneth Grahame's Wind in the willows: A pop-up book</i>
	3	<i>The sea waits</i>
	4	<i>Noddy and the bumpy dog</i>
John	1	<i>Inside out, upside down</i>
	2	<i>Rungawilla Ranger</i>
	3	<i>I've got a secret</i>
	4	<i>Wombat stew</i>
Andrew	1	<i>Long and short; Scruff; Loaders; Millions of cats</i>
	2	<i>Long and short; One panda; Guinea pigs don't read books; Whatever next?</i>
	3	<i>The great Tasmanian tiger hunt; Mr Forgetful</i>
	4	<i>Loaders; One panda; Farm alphabet book</i>
Glenn	1	<i>The kangaroo and the porpoise</i>
	2	<i>The ant explorer</i>
	3	<i>The Three Billy Goats Gruff</i>
	4	<i>The lion in the night</i>

Emily	1	<i>Paddington at the fair; Paddington's painting exhibition</i>
	2	<i>The great Wungle-bungle aerial exhibition</i>
	3	<i>The gigantic balloon</i>
	4	<i>Don't get burnt</i>
Michael	1	<i>The bionic bunny show</i>
	2	<i>Pig pig goes camping</i>
	3	<i>A lion in the meadow</i>
	4	<i>Beeswax; Pelly pie crust</i>

3.12 Audiorecording teacher-student interaction in kindergarten classes

The study also involved gathering data in Kindergarten classes in schools in the same geographical locations. The participating children were expected to attend these schools in the following year.

During November, 1987 principals of schools who had supported the preliminary questionnaire study arranged meetings with prospective Kindergarten staff for 1988 so that the project could be discussed with them. In each case agreement to proceed with recording during March 1988 was readily established.

The purpose of the project was represented to teachers as an attempt to understand more about children's language development and 'in the long term, why some children experience difficulty in early literacy development'. As with the mothers, the teachers were assured of the confidentiality of the audiorecorded material and their right to destroy a recording which they did not wish to release. They were asked to make eight recordings during March and April, 1988, a time chosen as the earliest feasible point in the school year, after the teachers had established basic classroom management routines with the new school entrants. Teachers were given a letter of request at these discussions and asked to indicate their response after a few days to the Principal of the school. This letter is included as Appendix 4.

Parents of students in the Kindergarten classes were advised of the project by letter and asked to indicate permission for the child's participation. A copy of this letter is included as Appendix 5. No refusals of permission were received.

Telephone calls were made to all teachers during the recording period to offer assistance and to check on progress with the recording. No major difficulties were encountered, with all teachers making only routine enquiries to confirm procedures.

In keeping with the strategy adopted for the families no constraints were placed on the selection of object texts to be read by teachers. Figures 3.7 and 3.8 display the titles of object texts read in the two sets of K classrooms in the lessons which were the subject of intensive linguistic analysis. (See also Section 3.13.)

Figure 3.7: Titles of object texts read by teachers
LAP Social Group Schools

School L1		
Class 1		<i>Who will be my mother</i>
Class 2		<i>To town</i>
School L2		
Class 1		<i>Rosie's walk</i>
Class 2		<i>Scruffy the tugboat</i>
School L3		
Class 1		<i>Whoosh</i>
Class 2		<i>The car wash monster</i>
School L4		
Class 1		<i>Little Red Riding Hood</i>
Class 2		<i>Mr Archimedes' bath</i>
School L5		
Class 1		<i>The owl and the pussycat</i>
Class 2		<i>Toilet tales</i>

Figure 3.8: Titles of object texts read to by teachers
HAP Social Group Schools

School H1		
Class 1		<i>The great zoo break</i>
Class 2		<i>Who's in the shed?</i>
School H2		
Class 1		<i>The jigaree</i>
Class 2		<i>Mr Archimedes' bath</i>
School H3		
Class 1		<i>The enormous crocodile</i>
Class 2		<i>Bear hunt</i>
School H4		
Class 1		<i>Jack and the beanstalk</i>
Class 2		<i>The Three billy Goats Gruff</i>
School H5		
Class 1		<i>When the wind changed</i>
Class 2		<i>Hairy Bear</i>

3.13 Data sampling and preparation

As a first step in data preparation all audiorecordings made by the mothers and approximately one half of those made by teachers were transcribed and analysed into semantic messages, a unit of analysis which will be formally defined in Chapter Four, Section 4.7.2.1.

This preliminary analysis showed an important general difference in the extent of transcript material from the LAP and HAP groups, taken across all eight recording sessions for each dyad. For the LAP group the four transcripts with the highest number of interactive messages were selected, and for the HAP group the four which most closely approximated the mean number of interactive messages. The approach gave a maximal representation of interactive language from the LAP group, while excluding sessions with interactive message totals in the extreme range from the HAP group.

For the school data, random selections were made from the first two recordings available from within each class. A further check was made to ensure that the selected session was not atypical of the extent of interactive language in the other lessons.

Transcripts of all of the analysed joint book-reading sessions are included as Appendix 7 (family interaction) and 8 (K class interaction). The conventions used in their presentation will be described in detail in Chapter Four, Section 4.8.

3.14 Summary

In the opinion of the participants themselves and on careful scrutiny by suitably experienced professionals, the family and school data sets appear to be essentially natural occasions of linguistic interaction in joint book-reading, so far as this is possible under any recording constraint. Unselfconscious use of language is evident throughout the transcripts when specific family matters are discussed, children and mothers joke together, and mothers yawn and comment ruefully on their

domestic work. There appears to be no evidence at all that readings are rehearsed or that children are constrained in what topics they can talk about by the presence of the tape-recorder. In fact, children sometimes ask at the end of a session when recording will begin. Where they express some interest in listening to the recording it is almost always at an obvious end to the conversation and the request seems as much motivated by resistance to sleep-time as anything else. The data therefore appeared to be a viable empirical basis on which to develop detailed analysis of the interactive texts.

CHAPTER FOUR

Language, Context and Semantic Variation

4.1 Identifying a theoretical framework for linguistic analysis of semiotic mediation

One of the five major priorities for this study, identified through the analysis of previous work on variation in Chapter Two, Section 2.7, was the explication of the linguistic theoretical basis and the analytic framework through which the description of interactive talk might be developed. A crucial issue is the clarification of what it means to say that language use varies in some systematic way in association with subjects' positions within social formations. Additionally, theoretical and analytic resources are required to model semiotic mediation as variant forms of contextualized language use effectively. This is an important problem in Vygotskian theory itself, to which attention was drawn in Chapter Two, Section 2.6.

Though within the Vygotskian research tradition scholarly interest in 'context' has been evident in many general ways, many studies do not theorize context as a semiotic, or more particularly, linguistic construct. Two significant exceptions relevant to this study are work by Rommetveit (1985) and his colleagues (for example, Hundeide, 1985), and by Wertsch (1985b, 1985c, 1991). Since Rommetveit's is the more theoretically modest proposal it will be discussed first. Wertsch's proposal will be considered subsequently, together with a recent critique of it from within the field of socio-semantic variation by Hasan (1992b) and her suggestions for the primary attributes of a theory of semiotic mediation as contextualized language use. The main part of the chapter is the explication of relevant aspects of this theory, including the development of a general framework for the analysis of the transcripts of interaction in families and K classes.

4.2 Preliminary: Rommetveit's problematic

Rommetveit's point of departure is the study of the development of 'states of intersubjectivity' in asymmetric communication, particularly in adult-child dyads. His work is a demand that

.. largely unexplored social-interactional features of verbal communication such as *states of intersubjectivity* and *patterns of dyadic communication control* must be made the foci of renewed theoretical analysis (Rommetveit, 1985:183).

This he considers necessary, because

even apparently very simple objects and events remain in principle enigmatic and undetermined as *social realities* until they are talked about ... (ibid., 193).

Though his writing does not constitute a full theory of context (he sub-titles part of his fullest statement 'fragments of a conceptual framework') his work is of interest because his conclusions about what an appropriate linguistic theory of context in studying adult-child dyads would entail are very different from those usually reached in research of this kind.

His empirical work (together with that of S. Rommetveit) uses ordering and classification tasks involving visual displays and questions about elements of those displays. The questions thus involve metasemiosis, since to solve the tasks children have to understand which graphic elements are referred to by linguistic descriptions. A consistent pattern in the results was that changes in the discursive contextualisation of the visual display caused children to respond differently, even though in one abstract sense the tasks were the 'same'. For example, on the first issue of the visual display, when children were asked to indicate in an illustration containing alternate male and female figures which was 'the one of the LADIES who has the SECOND SHORTEST way to the bus' (ibid., 195), an age-related set of results predictable within Piagetian theory was obtained. What was not predicted by Piagetian theory was that when the male figures were replaced

by dogs, or the LADIES were differentiated by colour, many more children successfully completed the task.

Rommetveit attributed this result to differences in the use of language to construct 'joint foci of attention'. In Vygotsky's terms, the mediational means for managing attention were differently interpreted, but *as a function of the discursive context* in which they were being used. (In this respect Rommetveit's work is interestingly similar to research by Walkerdine, 1982.)

In examining these results Rommetveit makes the significant general comment that

The child's expanding repertory of possible cognitive-emotive perspectives on states of affairs is necessarily constrained by an adult, pre-established "Interpretationsgemeinschaft", and in some respects linguistically structured. The operative nature of the resultant knowledge of the world is reflected in an increasing capacity to make sense of objects and events in accordance with drafts of contracts concerning categorisation embedded in ordinary adult language (Rommetveit, 1985:194).

This is, in another form again, the question of relating forms of linguistic semiosis relevant to semiotic mediation to their contexts of occurrence.

Though his analysis does not itself provide a means for understanding a richly contextualized account of semiotic mediation, it is interesting to note what he considers would be required of a productive linguistic account. He asks:

Can Vygotskian perspectives within an explicitly pluralistic and social-cognitive paradigm restore our respect for the holy trinity (as opposed to trichotomy) of semantics, syntactics, and pragmatics? (ibid., 202).

Only if, one might reply, some relationship between members of the holy trinity of language, and between that trinity and situated uses of language, can be explicated. This is the task to which I will turn in Section 4.4, following a consideration of Wertsch's proposal.

4.3 Preliminary: Speech genre and the analysis of semiotic mediation

Wertsch has proposed (1985b; 1985c; 1991) that Bakhtin's concepts of speech genre (1986), and social language and dialogism (1981) be used to overcome difficulties with Vygotsky's use of 'word meaning' as the analytic unit for the analysis of semiotic mediation.

Specifically, he suggests that

the ideal unit of analysis preserves in a microcosm ... as many dimensions of the general phenomenon under consideration as possible, thereby allowing one to move from one dimension to another without losing sight of how they fit together into a more complex whole (Wertsch, 1991:121).

The particular advantage of Bakhtin's theoretical categories, he suggests, is that they provide for a 'translinguistic' approach (a term which he prefers to Bakhtin's 'metalanguage', following Holquist), thus allowing the analyst to move across and beyond disciplinary boundaries in characterising the nature of semiotic mediation. He argues that

in order to formulate a more comprehensive approach to mental functioning one should identify historically, culturally, and institutionally situated forms of mediated action and specify how their mastery leads to particular forms of mediated action on the intramental plane. This amounts to extending Vygotsky's ideas to bring the sociocultural situatedness of mediated action on the intermental plane to the fore (ibid., 48).

The metaphor Wertsch himself develops to support analysis is that of a cultural 'tool kit', comprised of both linguistic and nonlinguistic elements, which are available for deployment in specific contexts. In turn, the metaphor leads him to discuss 'privileging' (ibid., 124) of the use of these tool elements in specific contexts as a *specifically psychological phenomenon*. Since 'privileging' rests on an account of social language, dialogicality and, in particular, speech genre, the status of Bakhtin's theoretical categories is crucial to his specific claims.

Of these categories, the concept of speech genre is theoretically dominant because on the one hand its form

assumes dialogicality and, on the other, speech genres are in some sense constitutive of varieties of social languages. For Bakhtin speech genre was a 'configuration' of utterances into a '*relatively stable type*' (Bakhtin 1986:60) which is functional. Functionality is regarded as crucial to the form of speech genres because

a particular function (scientific, technical, commentarial, business, everyday) and the particular conditions of speech communication specific for each sphere give rise to particular genres, that is, certain relatively stable thematic, compositional, and stylistic types of utterances (ibid., 64).

Again, Bakhtin comments that

Language is realized in the form of individual concrete utterances (oral and written) by participants in the various areas of human activity (ibid., 60).

The use of speech genres seems at first a highly promising suggestion because it offers the potential for analysing semiotic mediation from the perspective of functionality of language in specific fields of human activity within social formations, which Hasan shows to be required for an understanding of the ontogenesis of higher mental functioning (Chapter Two, Section 2.6).

Bakhtin proceeds descriptively from language in use rather than from formal features of the linguistic system, and social situations are considered to be crucial to the selection and reproduction of speech genres. The possibility is apparently open, therefore, to analyse features of language in use related to fields of activity. Such an analysis might distinguish different potentialities of linguistic patterning to act as semiotic mediation for various forms of higher mental functioning.

Further, since speech genres are constituted by utterances, which are considered dialogic constructs by definition, interpersonal features of linguistic interaction are crucial to the forms of speech genres. For example, Bakhtin comments:

... when the listener perceives and understands the meaning (the language meaning) of speech, he simultaneously takes an active, responsive attitude towards it ... Any understanding of live speech, a live utterance, is inherently responsive, although the degree of this activity varies extremely (ibid., 68).

However, difficulties become apparent when Bakhtin's proposal is considered more closely. Hasan's specific criticisms (1992b) with respect to the theorisation of context-speech genre relationships will be discussed in some detail because they not only reveal the limitations of Bakhtin's views but also suggest bases on which a more constructive theoretical framework for the analysis of semiotic mediation might be built.

Hasan's critique is sympathetic in finding many elements in Bakhtin's theory which are the embryonic form of a productive analysis, but she concludes that

... it does seem rather improbable that this potential of the Bakhtin-Voloshinov framework could be fully actualized. This is because its concepts and relations lack the kind of precision that is needed for a definitive study of the problems: the principles along which the Bakhtinian explanations might proceed are clear; what is not clear is the nature of the very constructs which are to be used in the explanation (Hasan, 1992b:516).

The most general criticism is that though Bakhtin foregrounds 'social situation' as a necessary category for the description of speech genre, the category remains theoretically undeveloped so that it is only possible to use it for ad hoc explanation. This is a serious criticism since it means that there are no principled techniques available to describe speech genres in ways relevant to interpreting crucial linguistic features of forms of semiotic mediation. If Vygotsky is right that

... the very mechanism underlying higher mental functions is a copy from social interaction; all higher mental functions are internalised social relationships (Vygotsky, 1981:164).

then a necessary condition for understanding differences in use of higher mental functions in various categories of 'social situation' is to be able to provide a systematic description of social situation. As well, the principles of

relationships *between* speech genres and their uses *within* various social formations are crucial for explanation of differences in forms and outcomes of semiotic mediation.

Hasan proposes, alternatively, that:

a developed theory of social context would at least have two attributes: one, it would explain the principle whereby the immediate social situation is related to social milieu; and two, it would specify the composition of social situation itself, making salient those of its significant elements which are relevant to understanding of the linguistic facts as they impinge on utterances and utterance types. Ideally, the theory would attempt to specify the *principles* by virtue of which the elements of the social situation happen to be related to the wording and compositional structure of the utterance (types) (Hasan, 1992b:505-6).

Following directly from this theoretical lacuna, there is a lack of development of means for 'distinguishing different orders of abstraction' in linguistic description (ibid., 510). Bakhtin is certainly interested in this problem at many points, but the nature of relationships between speech genres and linguistic 'strata', and ways in which language is 'manifested' in utterances is undeveloped.

A clear illustration of the practical difficulty of the lack of principles for distinguishing different orders of abstraction is to be found in Wertsch's comment about using the concept of speech genre for the analysis of classroom discourse:

The boundaries of an utterance, its finalization, its referentially semantic content, its expressive aspect (perspective), and its relationship to other utterances are all useful criteria. The greater the level of detail of each of these criteria, the greater the number of speech genres that can be distinguished. Indeed, with enough detail, any utterance could probably be distinguished from all others. But following Bakhtin's emphasis of *types* of utterances when identifying speech genres, I shall refer to criteria that distinguish them at the more general level (Wertsch, 1991:111).

The nearest Bakhtin himself appears to come to deal *directly* with this methodological and theoretical question is in writing about relationships between grammar and style. Noting that

both the fundamental and the general methodological question of the interrelations between lexicon and grammar (on the one hand) and stylistics (on the other) rests on the same problem of the utterance and of speech genres (Bakhtin, 1986:66),

he goes on to assert

grammar and stylistics converge and diverge in any concrete language phenomenon. If considered only in the language system, it is a grammatical phenomenon, but if considered in the whole of the individual utterance or in a speech genre, it is a stylistic phenomenon. And this is because the speaker's very selection of a particular grammatical form is a stylistic act. But these two viewpoints of one and the same specific linguistic phenomenon should not be impervious to one another and should not simply replace one another mechanically. They should be organically combined (with, however, the most clear-cut methodological distinction between them) on the basis of the real unity of the language phenomenon. Only a profound understanding of the nature of the utterance and the particular features of speech genres can provide a correct solution to this complex methodological problem (ibid., 66-7).

These passages are quoted at length to illustrate both the advantages and limitations of Bakhtin's view. The advantage lies in his refusal to reduce questions of language use to questions of the occurrence of individual grammatical or lexical items. The disadvantage is in understanding what such a general term as 'organic' could mean at such a theoretically crucial point of relationship between different orders of linguistic abstraction. Hasan considers that this difficulty arises from a focus on language as 'parole' to the exclusion of an understanding of language as system, and a sustained theoretical *disjunction* between language as process, in the form of the situated use of speech genres, and language as system (ibid., 511-12).

This disjunction comes about because in critiquing the possibility of relating process and system, Bakhtin continues to use the same model of language that his theoretical model gives grounds for rejecting. Hasan points out that the polemic is, in the end, insufficient.

Through their brilliant analysis of why linguistics should not be construed the way it is, why the system of language with which we function could not be the way it is said to be in Saussurian linguistics, Bakhtin-Voloshinov tantalisingly take us so far, but they abandon us at the end of their negative polemics. They do not provide any set of relations which would explain how speech process can intervene in the internalization of the living, variable, valuated system of language that they wish to attribute to the speaker's verbal consciousness (ibid., 513).

For these reasons Wertsch's proposal to use speech genre, social language and dialogicality to interpret semiotic

mediation appears unlikely to give a sufficiently specific set of research tools, and a sufficiently theorized account of relationships between language as use and language as system. Some related but alternative theoretical model is required to interpret if, and why, the use of linguistic signs in social interaction between caregivers and children might give rise to different forms of consciousness about the use of language in 'social situations'. Bakhtin's emphasis on a robust dialogism, and his indications of the importance of understanding social situation for understanding both the 'form' and 'function' of language is a considerable advance on studying 'word meaning', however rich the 'sense' of the word might become. But it does not provide a sufficiently clear theoretical account, nor a sufficiently specific methodology, to enable one to examine patterning of language in use by socially situated categories of speakers.

4.4 Systemic functional linguistics and the analysis of semiotic mediation

Rommetveit, Wertsch and Hasan are clearly in agreement that an account of language as semiotic mediation must be constructed from a theory of language which in some way enables an integration of the description of the context of use with the description of language selections per se.

The main function of this chapter is to consider the potential of some theoretical concepts and analytic procedures within systemic functional linguistics (hereafter SFL) to address these problems. The point of departure is linguistic meaning as a social phenomenon, a view which entails consideration within the systemic framework of the concept of *realization*, through which relations between linguistic strata and the semiotic context of situation is theorized. Since 'context' is central to the questions addressed by this research its uses in SFL are closely considered, including recent expansions of the widely discussed general contextual variables proposed by Halliday et al. (1964).

These considerations provide a basis for explicating the modelling of meaning options at the semantic stratum, and two contrasting approaches to their description through semantic networks. The practical use of one of these techniques is exemplified through analysis of an example of interaction discussed by Tizard and Hughes (1984).

4.5 The concept of realization in systemic linguistic theory

Writing in the early part of this century, Voloshinov commented:

the forms of signs are conditioned above all by the social organisation of the participants involved and also by the immediate conditions of their interaction. When these forms change, so does the sign. And it should be one of the tasks of the study of ideologies to trace this social life of the verbal sign. Only so approached can the problem of the relationship between sign and existence find its concrete expression; only then will the process of the causal shaping of the sign by existence stand out as a process of genuine existence-to-sign transit, of genuine dialectical refraction of existence in the sign (Voloshinov, 1973:21).

Voloshinov's argument draws attention to two features of linguistic meaning particularly relevant to the current study:

- i all situated uses of language implicate the 'social system', which in some sense is inscribed in the linguistic sign (text) itself;
- ii linguistic meaning is at one and the same time both a necessary condition for, and a result of, social interaction in language.

These views appear obscure so long as the linguistic sign is considered as a discrete entity. But if one moves from the perspective of the experienced language user, who already in some sense 'knows' a linguistic meaning, to that of the young child developing facility with the mother tongue it becomes clear that linguistic signs are always encountered not as atoms of meaning but as text.

Entry to linguistic meaning is achieved through interaction, occasions in which language is used for some actual human purpose. In an infant's experience these are, of course, predominantly pragmatic uses of language involving specific referents in a highly routinised environment (Halliday, 1975; Hasan, 1985c; Malinowski, 1935), though it is also apparent that young children use their protolanguage to inquire about and interpret experience prior to entry to the mother tongue (Halliday's *mathetic macrofunction*, 1975). Learning the language, then, simultaneously involves learning the culture precisely because of the nature of linguistic meaning.

Situating text as central to language learning involves a reconsideration of Saussure's relegation of *parole* merely to the status of a source of information about *langue*, or language as system. Saussure's claim was that

By distinguishing between the language itself [*langue*] and speech [*parole*], we distinguish at the same time: (1) what is social from what is individual, and (2) what is essential from what is ancillary and more or less accidental (Saussure, 1983:13).

However, if speech is also 'social' in the way that Voloshinov and many other scholars have argued, then it is necessary to articulate a different relationship between occasions of language use and the linguistic system itself.

The central problems to be resolved are the following:

- i how is the *instance* of language use related to language as *system*?
- ii how is language as *system* related to a cultural context?

The basic theoretical resource in SFL through which an account of context-text relations is built is the concept of realization. Each instance of language use is regarded as realizationally related to the potential of the language system. Rather than conceptualizing the system, following Saussure, as an abstraction developed from observations of

'parole', the actual instance of language use and the potential of the system are considered to be at the same level of abstraction (Halliday, 1978:40). The system is comprised of multiple sets of options, which form a resource - what speakers can mean. An instance of language use, that is a text, realizes options available in the potential of the system. Halliday, in explaining the relationship of this view to 'the original Saussurean-Hjelmslevian paradigmatic-syntagmatic generalization', describes it as a representation of

the whole system (in the Hjelmslevian sense) entirely in paradigmatic terms as a series of system networks, which are formally equivalent to one huge system network.

He goes on to comment:

That meant that the structure became the output of the network; it became the work that you had to do in order to translate a path through the network into an actualization. The structure then becomes the way in which systemic choices are realized (Halliday in Thibault, 1987:605).

Subsequently in the same interview Halliday claims that

... it's the paradigmatic basis of systemic grammar which I think is the distinguishing factor between this and other functional grammars (ibid., 609).

In order to provide some preliminary image of this view of language as system it is useful to again consider language development in very young children, prior to their entry to the mother tongue. At this point, during the child's use of protolanguage, it is possible to provide a complete description of the meaning potential of the individual system at a specific stage in a child's development, and of the expressions through which this meaning potential is realized. Each instance of language use involves a two-part structure, a content-expression pair, rather than the three-part structure of the language system. Figure 4.1 presents Halliday's description of the meaning potential of Nigel's protolanguage in the period 1 year: 1 year, 1.5 months.

Figure 4.1 Network representation of Nigel's protolinguistic meaning potential in the period 1 year: 1 year, 1.5 months

FUNCTION	CONTENT SYSTEMS	EXPRESSION: Articulation	Tone	GLOSS
Instrumental	demand, general	7 nā - - -	mid	give me that
		yi - -	high level	yes I want that
	demand, specific	a :	high rise-fall	yes I want what you just offered
		b ^m ʔa(-) ; buʔ(-)	mid	I want some powder
		tʃa(-) ; tʃa(-)	mid	I want (to go and get) the clock
Regulatory	command, general	a : ʔ ; ʔ	mid	do that (again)
		(mɪn)	wide : //	do that right now !
	command, specific	ʔ - - -	low	yes (let's) do that
		ʔ ʔ	mid (both)	no don't (let's) do that
		ʔ - - -	-	let's go for a walk
Interactional	greeting, personalized	p ^m - - - ; p ^m	high level	let me play with the cat
		na ; an : a	high level	Anne !
	engagement	da ; dade	high level	Daddy !
		ʔ a :	low long	yes it's me ; yes, I see
	response	a	low	don't be cross with me
		* a :: da	high rise + mid fall	look, a picture ; you say what it is
		a :: da	high rise + high fall	another picture ; now see what that one is
		=, a(da - -) da ; a(da - -) da	proclitic + (high level +) high fall	nice to see you ((ʔ shal we look at this ?))
		=, a(da - -) da	mid	look, that's interesting
		da	mid low	a dog !
Personal	participation	ba	mid low	birds !
		ba	mid low	a bus !
	interest	a ^m a ^m	mid low (both)	an aeroplane !
		a ^m i :: a ^m i :	mid	that's nice
		(a ^m i)	high rise-fall	that's funny (look where it's gone !)
Maginative	pretend-play	b ^m ʔa(-) ; buʔ(-)	low	a lot of talk !
		= ʔ ; ʔ - - -	narrow low	(I'm sleepy let's pretend to go to sleep
	withdrawal	b ^m a - - -	high	no-is-is
		b ^m a - - -	high	sung

Nigel's protolinguistic system is structured at this stage as sets of options within five functions of the protolanguage¹. These are labelled on the extreme left of the figure: the instrumental, regulatory, interactional, personal and imaginative functions. In each function the child has certain options, which are represented in terms of increasing delicacy. For example, within the potential of the instrumental function, if **demand**, **specific** is selected then there is a further system choice, either **powder** or **clock**. The phonological realization of each of these options is given under Expression: Articulation and Tone to the right of the figure.

This is a speaker-oriented 'reading' of the system, but it is also possible, using the concept of realization, to take a listener-oriented perspective. This involves moving from a selection on the expression plane 'up' to the content plane. Referring again to Figure 4.1, 'da' is the expression which realizes the content option **interactional:greeting**, **personalized:Daddy**.

With the child's entry to the mother tongue, the description of 'the system' obviously becomes vastly more complex because it is no longer idiosyncratic and local, but social and general. Each instance involves a three-part structure, selecting semantically, lexicogrammatically and phonologically rather than the two-part structure of the protolanguage. Nevertheless, in the specific respect that each instance of language use is a selection from the potential of the paradigmatically-organised system, the sense of realization is similar.

The notion of delicacy is central to this descriptive approach. Systems of options are described with increasing delicacy from the left to right in a network of options, so that a system of more delicate options is dependent on a prior

¹ Immediately prior to entry to the mother tongue the child had seven functions of the protolanguage described by Halliday (1975, ch 3) but at this age Nigel has developed just five.

option represented immediately to the left of the system. In Figure 4.1, the system in Nigel's protolanguage, positive vs negative, which is dependent on the option response is descriptively more delicate than the system response vs initiation.

To this point two mutually implicated senses of realization have been introduced: the sense in which an instance of language use is a realization of the potential of the language system, construed as paradigmatically organised sets of options; and the sense in which each occasion of language use is a realization of social relations, which is a consequence of the social nature of the linguistic sign.

Conceptualizing language use as instantiation of the linguistic system entails a particular theoretical position on relations between options in the semantic and lexicogrammatical strata. In SFL theory the position is that each option in the semantic stratum is realized through selection of options in the lexicogrammatical stratum. It is therefore possible to move analytically in either direction, from the semantics 'down' to the lexicogrammar, or from the lexicogrammar 'up' to the semantics. However, the realizational relationship between the two strata does not imply a one-to-one correspondence between options. As in linguistic theory generally the relation is considered to be many-to-one, one-to-many. Significantly, though, Halliday suggests that frequently what appears to be free variation in the grammatical system will be a resource for realizing more delicate options in the semantic system (Halliday, 1978:44).

These general theoretical orientations have, of course, to be considerably elaborated in order to build a robust account of how it is possible to move from observations of linguistic signs in use, language as text, to an understanding of precisely how it might be that *forms of signs are conditioned above all by the social organisation of the participants involved* (Voloshinov, 1973:21). Three crucial sets of

relations for this purpose are those between context of culture and context of situation, between context of situation and the linguistic system, and between the semantic and grammatical strata within language. They are the foci of discussion in the following sections.

4.6 Notions of context in systemic functional linguistics
Notions of context have been developed in SFL from the pioneering work of Malinowski (Firth, 1957; Halliday, 1991; Halliday and Hasan, 1985; Halliday et al., 1964; Hasan, 1985c; in press(a), but differ somewhat from his conception of the explanatory status of the immediate material environment.

Two senses of context are employed: context of culture and context of situation. A context of culture is a generalized semiotic potential, a higher-order semiotic in Halliday's terms (1978:123), which provides the potential for how it is possible to mean within that culture. It comprises the total of semiotic systems available within the culture (Halliday and Hasan, 1985).

A context of situation is also itself a social semiotic, to be distinguished from the physical environment of the occasion of language use, or what Hasan has called the material situational setting (Hasan, 1973; 1985c; 1986a). Context of situation, by contrast, refers to those extralinguistic phenomena which are implicated in the exchange of a particular configuration of *meanings*. Contexts of situation are instantiations of the context of culture. In this sense they are simultaneously both constituted by and, viewed most generally, constitutive of the context of culture (Halliday, 1978; Halliday in Thibault, 1987:610). Halliday has recently exemplified the relationship between context of culture and context of situation in this way:

A situation, as we are envisaging it, is simply an instance of culture; or, to put it another way round, a culture is the potential behind all the different types of situation that occur. We can perhaps use an analogy from the physical world: the difference between "culture" and "situation" is rather like that between the "climate"

and the "weather". Climate and weather are not two different things; they are the same thing, which we call *weather* when we are looking at it close up, and *climate*, when we are looking at it from a distance. The weather goes on around us all the time; it is the actual instances of temperature and precipitation and air movement that you can see and hear and feel. The climate is the potential that lies behind all these things; it is the weather seen from a distance, by an observer standing some way off in time (Halliday, 1991:8).

The material environment can be the setting for a wide range of semiotic activity. Consider the material situational setting of, say, a mother and child sitting together on the child's bed in the evening. In this material environment several sorts of activity are possible. They may be reading a book together, discussing the meaning of a telephone conversation the child has just overheard, quarrelling over the child's insistence that they read more books, and so on. Though the material situational setting is the same, these semiotic 'environments' constitute different contexts of situation, 'something that is recognized by the members [of a culture] as a form of social activity they engage in (Halliday in Thibault, 1987:610; see also Hasan and Cloran, 1990:71-73).

The preceding discussion has emphasised dissimilarity between the notions of context of situation and material situational setting. However, the distinction having been made, it is also significant to notice that material situational setting is not irrelevant to context of situation. Material situational setting may well impinge on context of situation in important ways, as obviously in classrooms where the material conditions for learning constrain the possibilities for various kinds of semiotic activity. Therefore an analytically productive account of context of situation must be able to theorize how this 'impingement' might be interpreted, and how its effects on the linguistic interaction observed. The issue is taken up again, following a discussion of contextual variables, in Section 4.6.3.

Relations between contexts are a further important theoretical issue, since even the informal examples of different contexts of situation are, fairly clearly, not totally unrelated to each other. There are many similarities, such as the use of

oral language, language rather than physical activity constituting the interaction, the text being constructed collaboratively and so on (Halliday and Hasan, 1985; Hasan, in press(a)).

Specific instances of contexts of situation are considered more generally in terms of situation types. The considerable advantage of this perspective is that it enables a description of 'a constellation of meanings deriving from the semiotic system that constitutes the culture' (Halliday, 1978:109), thus overcoming the analytic difficulty encountered if meanings are considered only in terms of specific, local occasions of use of language. The concept of situation type enables a discourse analyst to consider patterns of meaning which are configured in a range of specific contexts of situation.

However, for the notion of situation type to have that explanatory power there must be some elaboration of social variables, specific values of which contribute to the definition of the contextual type, to the sense of what values are implicated in a context, or what meanings are 'at risk' to use Halliday's phrase (Halliday and Hasan, 1985). In the development of systemic functional theory such an elaboration of the social variables has also enabled some specific and crucial claims to be made about the nature of the semantic interface between context and language.

4.6.1 The contextual variables: field, tenor and mode
In SFL theory the notion of context of situation is analysed by reference to three variables: field, tenor and mode. Halliday glosses these as 'what's going on', 'who's taking part' and 'what part the particular semiotic system ... is playing' (Halliday in Thibault 1987:610).

As a more formal definition, Halliday has proposed the following:

1. **THE FIELD OF DISCOURSE** refers to what is happening, to the nature of the social action that is taking place: what is it that the participants are engaged in, in which the language figures as some essential component?
2. **THE TENOR OF DISCOURSE** refers to who is taking part, to the nature of the participants, their statuses and roles: what kinds of role relationships obtain among the participants, including permanent and temporary relationships of one kind and another, both the types of speech role they are taking on in the dialogue and the whole cluster of socially significant relationships in which they are involved?
3. **THE MODE OF DISCOURSE** refers to what part the language is playing, what it is that the participants are expecting the language to do for them in that situation: the symbolic organisation of the text, the status that it has, and its function in the context, including the channel (is it spoken or written or some combination of the two?), and also the rhetorical mode, what is being achieved by the text in terms of such categories as persuasive, expository, didactic and the like (Halliday, Halliday and Hasan, 1985:12).

Since these factors are sometimes considered as register variables in work in educational linguistics (Martin, 1992; Matthiessen, 1993) in an alternative formulation of register theory, it is perhaps important to emphasise that here they are discussed as variables of contexts of situation (Halliday, 1978:110; Halliday in Thibault, 1987:610). Register, in contrast, is the configuration of linguistic choices at the semantic stratum which realize some context of situation.

4.6.2 Context, text and language as system

The relationship between text and context of situation, considered as a higher-order semiotic, is one of realization. Contexts are realized through texts, and conversely texts construe contexts. Expressed from the perspective of interpretation what this claim means is that a language user builds inferences about a type of context from the semantic features of the ongoing text. For example, a child who enters a classroom and hears only the words '... which you will have to finish before lunchtime' will typically be able to infer very early in her school career that this is some kind of 'regulatory' context in which her status as a pupil is crucial and her discretionary options for action are very limited. Inference-building of this kind is a key aspect of what children learn to do as part of literate activity through

joint book-reading, and conversely what they are often prevented from doing by the artificially controlled language of purpose-written school readers commonly introduced towards the end of the Kindergarten year.

From the perspective of the generation of text, the realizational claim means that language users select language which is 'appropriate' to the context, that is language which does actually enable interactants to recognise the type of context it is. In the early years of schooling this is again something that children have to learn to do in managing classroom discourse, as is evident from comments they make which often appear tangential. There is considerable potential here for contextual misrecognition of a profound kind (eg, Hasan, 1987).

The systemic functional account of context-text relations extends to a further theoretically crucial claim about specific relations between, on the one hand, the contextual variables of field, tenor and mode and, on the other, the nature of language as system. Through his intensive work on the grammatical system of English Halliday (eg, 1970; 1976a; 1976b; 1978; 1985a) was able to postulate a metafunctional organisation of system options. He gives these as the interpersonal, textual and ideational metafunctions, the last of which is further sub-categorised as experiential and logical metafunctions.

At the lexicogrammatical stratum the interpersonal metafunction comprises resources such as MOOD, MODALITY AND MODULATION, the textual such resources as THEME, INFORMATION FOCUS and COHESION, the experiential TRANSITIVITY/ERGATIVITY and REFERENTIAL SIGNIFICATION, and the logical such resources as PROJECTION and EXPANSION. The question then naturally arises: how do these metafunctionally organised resources of the language system relate to the contextual variables field, tenor and mode?

The relation is hypothesised as the context-metafunction hook-up hypothesis (hereafter the CMH hypothesis). Since this hypothesis is so crucial to both the general theory and specific methodological possibilities to be discussed subsequently, I quote at length from Halliday's 1978 summary formulation.

The semiotic components of the situation (field, tenor and mode) are systematically related to the functional components of the semantics (ideational, interpersonal and textual): *field* to the *ideational* component, representing the 'content' function of language, the speaker as observer; *tenor* to the *interpersonal* component, representing the 'participation' function of language, the speaker as intruder; and *mode* to the *textual* component, representing the 'relevance' function of language, without which the other two do not become actualized. There is a tendency, in other words, for the field of social action to be encoded linguistically in the form of ideational meanings, the role relationships in the form of interpersonal meanings, and the symbolic mode in the form of textual meanings (Halliday, 1978:123).

Though the relation between the contextual and linguistic system variables has sometimes been discussed as one of *determination*, it is clear from this wording that Halliday considers the relationship to be probabilistic, as evidenced in the use of 'tendency'. Some confirmation of the theoretical claim is to be found in recent work in register theory. For example, Matthiessen (1993:244-49) provides illustrations of how realizational probabilities might be modelled. Further, a probabilistic relationship is a necessary condition for the permeability of contextual variables, as Hasan (in press(a)) has argued. This point is elaborated in Section 4.6.3.

From the perspective of linguistic encoding, the realizational movement is from the configuration of contextual variables to the relevant metafunctionally organised semantic options, themselves realized through lexicogrammatical features. (The issue of graphological/phonological realization will be bypassed since it is not directly relevant to the current problem and involves a complex set of further considerations.) From the perspective of 'decoding' the movement is from lexicogrammatical features to the semantic stratum, from which a contextual configuration of values of the variables field, tenor and mode are construed (Halliday and Hasan, 1985).

To say that context of situation is a necessary level of linguistic description is not to assert that it is a stratum of language. Within systemic functional theory context of situation is a descriptive level between language and the generalised semiotic resources in the context of culture. Language itself is considered to be a tri-stratal system, comprising semantics, lexicogrammar and phonology/graphology.

Register is the specifically linguistic concept through which the patterning of linguistic resources at the semantic stratum, as a function of their use in a situation-type, is related to context of situation. In an interview with Paul Thibault in 1987 Halliday expanded this conception of the relationship, though it was also explicitly formulated in much earlier work². In the interview Thibault had commented that

register ... is another interface notion; in this case between the semantics and the social situation (Thibault, 1987:610)

but in response Halliday emphasised register

as being at the semantic level, not above it. Shifting in register means re-ordering the probabilities at the semantic level whereas the categories of field, tenor and mode belong one level up (Halliday in Thibault, 1987:610).

This theoretical relationship is necessary for the hypothesised relation between context of situation, semantics and lexicogrammar.

The use of 'probabilities' in Halliday's formulation above again emphasises the point that from within the general semantic options available in a language registers will

² For example, in the 1978 work *Language as social semiotic* he had defined register as:

... the configuration of semantic resources that the member of a culture typically associates with a given situation type. It is the meaning potential that is accessible in a given social context. ... Since these [semantic] options are realized in the form of grammar and vocabulary, the register is recognisable as a particular selection of words and structures. But it is defined in terms of meanings; it is not an aggregate of conventional forms of expression superposed on some underlying content by 'social factors' of one kind or another. It is the selection of meanings that constitutes the variety to which a text belongs (Halliday, 1978:111).

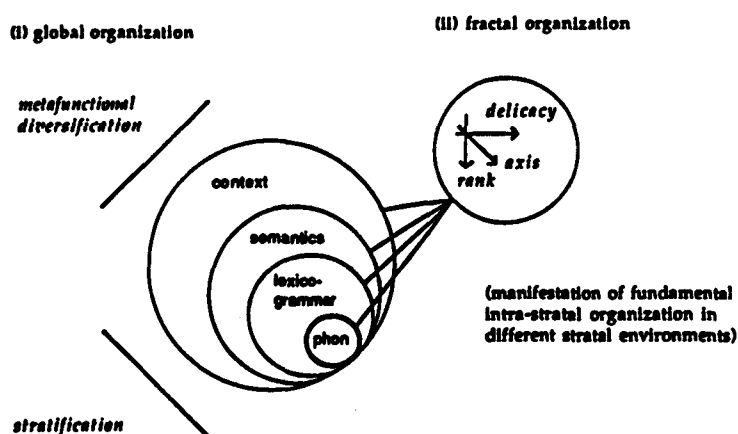
typically involve the co-patterning of certain sets of options as the realization of a type of context of situation, forming a meaning potential for that situation-type.

In a recent comprehensive review of the concept of register Matthiessen (1993) has proposed that relations between context and language, and relations within these semiotic systems, might be described along three global dimensions: stratification, functional diversity and potentiality. The description of each stratum is then expanded through what he has called aspects of fractal organisation: delicacy, axis and rank. I use his discussion as an economical summary of the relations which have been introduced in the preceding discussion. The relationships are modelled by Matthiessen as in Figure 4.2.

Stratification refers to the partitioning of description of language in context between strata which are related through realization. Context of situation is one descriptive stratum, related to language through a realizational chain. The linguistic system itself is regarded as tri-stratal, comprising semantics, lexicogrammar and phonology/graphology. From this perspective Matthiessen defines language in context as 'a system of systems ordered in symbolic abstraction' (ibid., 226).

Functional diversification is the term used to denote the fact that each of the descriptive strata involve 'different modes of contextual and linguistic meaning' (ibid.). Contexts are functionally diversified through field, tenor and mode variables. Each stratum of the linguistic system is also diversified through the metafunctions of ideational, interpersonal and textual meanings.

Figure 4.2 **Matthiessen's model of dimensions of the semiotic space of registers**

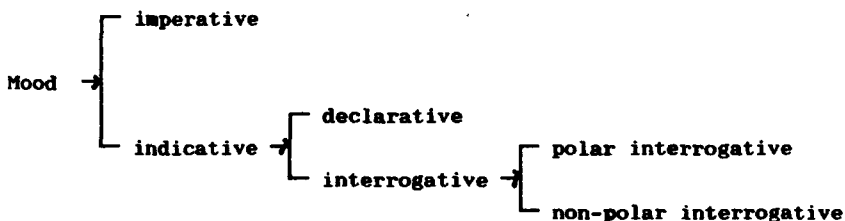


Potentiality adds a third global dimension, metaphorically that of time in Matthiessen's description, to complement the two previous 'spatial' dimensions. Linguistic and cultural systems are thus resources for 'what can be meant' in Halliday's terms (eg, 1973b), and texts are regarded as instances from the potential resulting from instantiation of the system.

The three fractal dimensions describe relations within strata. Axis refers to the familiar Saussurian paradigmatic/syntagmatic dimensions. In systemic functional theory structure is a realization of paradigmatic choice. Delicacy of description is possible within each stratum since systems are ordered from most general to most specific. For example, within the interpersonal metafunction at the lexicogrammatical stratum the system [declarative] versus [interrogative] is more delicate than the system [indicative] versus [imperative], and similarly the system [polar interrogative] versus [non-polar interrogative] is more delicate again. Analogous to the modelling of the systems of content-

expression pairs in the protolinguistic functions, these relations are shown in a network as in Figure 4.3.

Figure 4.3 Lexicogrammatical network fragment of mood to illustrate the concept of delicacy of options



Finally, rank refers to the fact that within strata structure is described on a rank scale such that units higher on the rank scale are comprised of those which are lower. For the lexicogrammatical stratum this scale is: clause, group/phrase, word and morpheme (see also Halliday, 1985a for a discussion of differences between immediate constituency and rank scale analysis of lexicogrammar).

These, then, are global dimensions of the semiotic space through which semantic variation of various kinds might be considered within systemic functional theory. They provide a basis for now considering expanded accounts of selected relevant aspects of the theory. The foci of the following sections are: first, a more detailed account of the contextual variables field, tenor and mode; and second, proposals for modelling systems of options at the semantic stratum.

4.6.3 An expansion of the description of contextual variables

Recently Hasan (eg, in Halliday and Hasan, 1985; 1994; in press(a)) has contributed an extension of Halliday's three contextual variables. This work is valuable for clarifying the nature of social activities in a type of context, and of relationships *between* field, tenor and mode variables. (It is also significant theoretically in clarifying bases on which

the CMH hypothesis might be validly and consistently tested, though this aspect extends well beyond the scope of what can be considered here.)

An overview of Hasan's expansion of the contextual variables will be presented, followed by a discussion of her proposals with regard to relations *between* contextual variables and to extending the theorising of social activity.

The variable field is described as comprising an integration of three sub-variables, giving a more delicate analysis of Halliday's 'nature of the social action'. The sub-variables are referential domain, social activity and goal-orientation. (This conception is in contrast with some work in educational linguistics which has interpreted field as subject-matter).

Referential domain is the region of semiotic 'reality' to which language refers in some context, in the sense of signification. It is very similar to the sense of subject-matter. Social activity is the nature of the culturally determined action of the interactants, what they are 'doing' or what is 'happening', for example reading together, sharing the cooking of a meal, learning a musical instrument and so on. (To foreshadow, a significant consideration in the analysis of field is whether more than one social activity is engaged in simultaneously within a context of situation, or whether different social activities are construed as aspects of different contexts of situation.) Goal-orientation, what is to be achieved by the social activity, is further defined in terms of local and supra-local orientations. While a local goal-orientation is very similar to the social activity itself, for example to prepare a meal³, the supra-local goal is not. Rather, it refers to a much higher level of abstraction in cultural activity.

3 Hasan comments that 'the local and visible goal of an activity is almost tautologically related to the activity's specific description ... (Hasan, 1987:6).

The supra-local long-term goal is the most generalized characterization of the activity's final outcome. As such, it captures the deep, invariant meaning of that activity's most general description. Being remote from the local goal of the activity, the long-term goal of an activity is its 'invisible' goal: it does not act as the immediate centre of the participants' attention (Hasan, 1987:6).

While a local goal-orientation might be to prepare a meal, a long-term goal orientation might perhaps be to confirm a particular formation of gender roles in domestic work. Long-term goal orientations are constructed across many occasions of interaction and assume sustained forms of agentive relations between participants.

Though subject-matter is often given a primary status in analyses of field Hasan argues that it is social activity which is more usefully regarded as primary, commenting

... the sense in which the nature of social activity has primacy over subject matter is that by appealing simply to subject-matter, we can make no predictions regarding what a discourse about it might be like, while by appealing to the nature of the social activity we can do precisely that: we can say a good deal about the outline of a discourse if we know what kind of social activity occasioned that discourse (Hasan, 1994:141).

Tenor also comprises three sub-variables: status relation, agentive relation and social distance. Status relation indicates the institutionally derived position of the interactants, for example mother and child in the institution of the family, or teaching assistants in the school. Status is not used in the sense of such social status as might be measured by indicators of socioeconomic status, but rather as institutionally determined positions which are associated with the social activity.

Agentive relation refers to the respective positioning of participants as effectors of a social activity. The descriptive value of distinguishing between status and agentive relation in construing tenor can readily be seen in such situations as a school staff meeting in which a teacher proposes some curriculum reform in opposition to the dominant practice. The status relations obtaining between, say, the

principal and the teacher in such a meeting do not in themselves predict the form of the agentive relation.

Values of the variable social distance indicate the kind of personal relation obtaining between interactants. Clearly the tenor of interaction in a staff meeting will be affected by whether or not the interactants are maximally distant from each other socially. Again, for example, the configuration of tenor variables:

status relation:	teacher/K pupil
agentive relation:	pupil effecting request
social distance:	near maximal

are likely to be realized linguistically quite differently from a configuration such as:

status relation:	teacher/K pupil
agentive relation:	teacher effecting request
social distance:	near maximal

Sometimes the realizations of these tenor values in children's speech are themselves the subject of explicit attention in schooling, even in the first few months of Kindergarten. This is evident in Example 4.1, which is drawn from data gathered for this project.

Example 4.1

Cd: I want to go to the toilet.
Tr: Do you? You have to ask if you can go to the toilet. George, say, "Miss R may I please go to the toilet?" Open your mouth up. Come on. I've heard you yelling out in the yard. You can talk louder than that. Here. If you don't ask me you cannot go and you have to go to the toilet so say "Miss R, may I please go to the toilet".
Cd: May I please go to the toilet?
Tr: Yes alright, go to the toilet.

The description of **mode** is elaborated through three sub-variables: language role, channel and medium. Language role picks up Halliday's aspect of 'what part the language is playing', particularly whether language is constitutive of the interaction, as in a discussion amongst friends over dinner, or ancillary to the interaction, as with children playing with Lego blocks. This is obviously not a dichotomous variable,

since within different phases of a social activity language may play variable roles. One of the interesting aspects of joint book-reading, so far as children's language development is concerned, is that it foregrounds the constitutive role of language, as scholars such as Donaldson (1978) and Dombey (1983) have pointed out.

The distinction between channel and medium draws attention to, on the one hand, the material means through which language is perceived, whether phonic or graphic channel, and on the other hand, the patterning of wording with respect to features such as lexical density and grammatical intricacy (Halliday, 1985b). There is no necessary combination of phonic channel with spoken medium or graphic channel with written medium. Many uses of e-mail, for example, illustrate a significant extension of cultural practice in combining graphic channel with spoken medium. In reviewing shifts in cultural practices in channel/medium relations Hasan has remarked that:

Today, medium and channel may or may not be congruent: the matter is decided not so much by the nature of the channel as by the nature of the social activity and of the social relation between the participants (in Halliday and Hasan, 1985:59).

Through the notion of process-sharing, which is closely associated with choice of channel, Hasan nets in description of the variability of joint construction of text by participants, that is the extent to which text results from linguistic interaction between participants. Some activities such as casual conversation on the telephone require, as a matter of necessity, at least some sharing of process, but others may be much more variable. In university lectures, for example, there may be considerable differences in practice in the degree to which student comments are welcomed by a lecturer as part of the text of the teaching/learning activity. The variability of process sharing is also illustrated by Heath's observations of Roadville and Gateway joint book-reading practices, previously discussed in Chapter Two.

The expansion of the account of the contextual variables raises an important issue for the modelling of context, and consequently for the realization of context at the semantic stratum. What is the nature of the relation between these (sub-)variables?

The preceding discussion has tended to foreground social activity both by according it primary status in the description of field, and by indirectly suggesting how values selected in sub-variables such as status relations and channel/medium values are related to it. A social activity of some kind cannot be a process without interactants. By virtue of the fact that it is a *social* activity it is located institutionally, and in consequence interactants are accorded a social status. The nature of agentive role cannot be independent of social activity: social activity constrains both the sense of what counts as 'appropriate' agentive role and to a large extent how agentive role can be distributed. Again, the social activity of casual conversation is at least very likely to lead to a sharing of the process of text construction and to the selection of spoken medium. The selection of written medium will be very marked in association with this activity.

Hasan (in press(a)) argues that a context of situation results not from a simple combination of values in these ten sub-variables, but from an *integration* of them. She suggests the analogue of the integration of metafunctions in the structure of the clause for modelling relations between contextual variables.

It seems to me that one way of conceptualizing the context of situation is to see it as a simultaneous mapping of choices that are social activity-related, choices that are social-relation related, and choices that are mode-related: like the clause, each contextual variable might conceivably be seen from the perspective of the three metafunctions. The three contextual variables do not just remain compartmentalized into their neat little boxes of field, tenor and mode: the nature of field-as-social-activity pervades tenor-as-social-relation and mode-as-symbolic-social-contact, just as the nature of tenor-as-social-relation pervades field and mode, and so on (ibid., 136).

The permeability of the variables is a theoretical necessity rather than a weakness since both discreteness and covariance of the contextual variables are necessary conditions for probabilistic rather than deterministic accounts of the CMH hypothesis. On the one hand, the discreteness of the three factors is necessary for describing functionally diverse aspects of semiosis in human interaction. On the other, description of predictable covariance between them is crucial to a theoretical account of types of context since, as Hasan has again pointed out, it is the *configuration* of values of the contextual variables which gives the experienced language user a sense of a type of context of situation (eg in Halliday and Hasan, 1985). That is, the sense of a context of situation does not derive from an aggregation of contextual features but from their distinctive co-patterning resulting from some degree of mutual implication of specific values.

Permeability of the variables does not imply free variation between them. There is, in contrast, an implicative relation between, for example, social activity on the one hand, and social status and agentive role on the other. These will serve as specific examples for the following discussion because of their particular relevance to the current project, though the analysis could equally have been developed through relations obtaining between several other sub-variables.

To enable closer exploration of how contextual variables are mutually implicated Hasan has recently expanded the description of social activity. The expanded account posits three abstract types of social activity: action-based, relation-based and reflection-based activity.

In order to exemplify and then consider the explanatory potential of these proposals for this project a short stretch of dialogue from an occasion of joint book-reading is

introduced as Example 4.2. Emily and her mother⁴ are commencing to read *The great Wungle-Bungle aerial expedition*.

Example 4.2⁵

- 1 Mh: (READING) *The great Wungle-Bungle aerial expedition* Let's see now .. Oh
2 Cd: Is it on?
3 Mh: Yes.
4 Cd: I'll have to cross my legs because my legs are cold
5 Mh: Yeah, it's pretty cold, isn't it? How's your head, my love?
6 Cd: Is it still sleeping time?
7 Mh: Yes
8 Cd: (INAUDIBLE)
9a Mh: Mm ... sweetheart ...
9b Mh: Where did we get this do you remember?
10 Cd: At the Exhibition.
11 Mh: Yeah. Do you know what it was called?
12 Cd: Mm.
13 Mh: First State '88.
14 Cd: Mm.

Even a first reading might suggest that this stretch of interaction involves somewhat different forms of social activity. The mother commences interaction by reading the title of the object text, and follows by making an introductory framing comment, drawing attention perhaps to the book as object of attention. Aspects of the physical environment are specifically attended to in Emily's question in (2) and the mother's response in (3), as is obvious in the exophoric reference in Emily's question and in her mother's answer in (3) (when the ellipsed clause is expanded). Commencing with Emily's comment in (4) and continuing through

4 Discussion of various members of the children's families raises the problem of reference. I have opted to refer to them through their relationship with the child, hence 'Emily's mother', rather than to invent pseudonyms. This form is chosen to provide clearer reference to interactant relations and also usefully draws attention to the fact that it is the children's learning through their mothers' speech which is of primary interest in this thesis.

5 The conventions of transcription used are:

- * Speaker turns are numbered for ease of reference.
- * Three dots indicate a substantial pause in the dialogue, longer than is usual in this environment.
- * Comments in capitals enclosed in round brackets are included to clarify some aspect of the linguistic interaction. They are based on evidence in the audiorecording.
- * Language read by the mother from the object text is in boldface.

the mother's solicitation, the child's question about the phase of her day and the mother's endearment in (9a), a slightly different activity is engaged in, more or less exclusively concerned with the relationship between them. Notice, for example, that the mother does not react to Emily's failure to answer her query, which is strong evidence that in asking the question she is not primarily motivated by a concern for Emily's state of health. The very low volume of Emily's voice in (8), causing it to be inaudible, suggests a social relation of intense intimacy at this point. Finally, in (9b), the mother's question begins a third type of activity, interaction concerned with the object text. Discussion and reading of it then continues for a considerable time.

Returning to Hasan's positing of three abstract types of social activity, my reading of her argument suggests that the first section of this excerpt, the reading of the object text title, the mother's framing comment and the exchange concerning the appliance constitute action-based activity. The second section, from Emily's comment in (4) to the end of the first part of the ninth utterance (9a) exemplifies relation-based activity. The rest of the excerpt, during which discussion of the object begins, from (9b) to (14), exemplifies reflection-based social activity.

To take action-based activity first, in Hasan's formulation

it reflects the fact that many of the social practices of a community are essentially of a physical nature. Language enters into these activities almost as an extra *limb* with which the interactants can engage in the activity, and bring it to its completion (Hasan, in press(a):116).

This is not at all an uncommon feature of joint book-reading activity. Children re-arrange pillows, ask to have better access to pictures, close doors to prevent noise interrupting and so on. Even though it is not the focal feature of the interaction the material situational setting may enter the interaction because the interactants' position in, and

relationship with it, is important to the success of joint book-reading.

Reading and talking about an object text itself is, par excellence, an example of reflection-based activity. Here language is constitutive of the interaction because by definition reading a book in this type of environment is a semiotic activity concerned with contemplating, interpreting and evaluating social meanings: it involves 'knowledging', in Hasan's sense of the term⁶.

Relation-based activity concerns the nature of *personal* relations between interactants.

This activity is essentially an enactor of personal relationships, influencing the quality of human interactions, no matter what their nature (Hasan, in press(a):118, original emphasis).

This claim is both complex and important for the current project. The claim is not that in the absence of relation-based activity no interpersonal meanings are being exchanged. Within the general theoretical paradigm this is impossible since the theory postulates that speakers simultaneously choose interpersonal, experiential, textual and logical meanings in forming text. Rather, I understand Hasan to mean that in certain contexts relation-based activity is a distinctive form of activity which may be observed to contribute to the context through language which is constitutive of that activity. It is some aspect of the interpersonal relationship which is, in a sense, undergoing negotiation. Such constitutive language may be accompanied by physical activity and paralinguistic modalities such as particular voice quality, as can readily be imagined to be the case in Example 4.2.

A further example of relation-based activity, in which language is used constitutively, may be useful in order to

⁶ Hasan draws attention to the misrecognition which occurs through the Process/Range configuration of 'producing knowledge', and hence proposes the term 'knowledging' (ibid., 116).

clarify this discussion. The interaction presented as Example 4.3 occurs much later in the occasion of joint book-reading from which Example 4.2 is drawn, and follows a brief exchange in which Emily comments that her lips are still sore, and her mother comforts her about this problem. The exchange marks a return to the mother's concern expressed in Example 4.2, (5). Emily, however, evidently has another related concern to bring forward.

Example 4.3

- 1 Cd: Don't smack me anymore when I'm jumping on the bed because then I get down and cry and cry when I'm going in my room I might *bump my
2 Mh: *And then you run into a wall because you're crying
3 Cd: Mm. And I can't see.
4 Mh: You did deserve that smack, didn't you? Next time don't keep doing what I tell you not to. Mm?
5 Cd: But I didn't hear you.
6 Mh: Okay, we'll take a bit more care of you.
(READING) Slowly they made their way bumping from side to side
7 Cd: Look there. It looks different. See that one there?

In (1) through (6) the object of attention is the personal relation, in this case repair of the relation. With resumption of the object text reading and Emily's comments in (7) there is a reversion to reflection-based activity.

On the basis of the expanded account of social activity, it is possible to see how social activity and status relation and agentive role are mutually implicative. Taking relation-based activity as a point of departure, it is obvious that the nature of such an activity implicates the socially constructed social status of the interactants, perhaps somewhat crudely 'what status' is relating to 'what status' rather than 'what person' is relating to 'what person'. The socially constructed 'motherness' of Emily's mother and Emily's socially constructed 'childness' are by no mean irrelevant to the nature of the relation-based activity. To illustrate simply, it would be odd indeed in contemporary Australia if a four-year-old child were to tell her mother (non-ironically) that she will in the future 'take a bit more care of her', perhaps even more odd for her to select the first person

plural in doing so. But if the social status of the interactants is socially constructed, and the many social formations in a speech community cannot be assumed to construct social status in equivalent ways, it follows that a potential exists for variant forms of relation-based activity to develop, in this case between mothers and children interacting in different social formations.

A parallel account of an implicative relation can be developed for reflection-based activity. The socially constructed social status of the mother, not only with respect to her 'motherness' but also with respect to other aspects of her social location as a (young) woman with specific employment relations, membership of voluntary associations and so on, all may affect the nature of the reflection-based activity in which she and the child engage. Issues to which a child's attention are directed through questions in reflection-based activity, for example, may be affected by the social status relations of the mother. Again, a potential for variant forms of reflection-based activity exists through the implicative relation between the field and tenor variables.

For the current research project there are several significant advantages of Hasan's theoretical expansion of the contextual variables. One is that it gives a theoretical and descriptive basis for accounting for the multifunctionality of social activity in a context, and therefore of a potential for a multiplicity of agentive roles in the one situation type. Something of this multiplicity can be observed in Examples 4.1 and 2, in the respective roles Emily and her mother take within each of the specific activity types. It would be difficult to capture these agentive roles without the elaboration.

A facility to account for a potential co-occurrence of reflection-based and relation-based activity in the one context of situation is particularly significant since, as the preceding discussion has attempted to show, the two types of

activity are likely to interpenetrate and affect each other. Generally, action-based activity will be involved only in establishing the requisite material environment for the activity to continue.

The analytic resource is crucial because the form, frequency and extent of co-occurrence of relation-based and reflection-based activity is predicted, from the perspective of Bernstein's theory, to be differentially distributed as a function of positions in social formations. This is because forms of relation-based activity (in the specific sense of language being used constitutively to enact personal relations) is likely to be highly sensitive to coding orientation, specifically to whether a code requires the explicit negotiation of certain interpersonal meanings in a situation-type.

A second advantage concerns the practical issue of what linguistic interaction counts as an example of joint book-reading. If *field* in joint book-reading contexts were to be understood as a combination of a single type of social activity of the reflection-based type, together with some particular subject-matter, in the linguistic analysis it would be necessary to exclude moments of relation-based activity and action-based activity. Such a move does considerable violence to a commonsense view of what is important in the activity as mother and child read together. The expanded sense of social activity enables the inclusion of these episodes on explicit theoretical criteria.

Third, the description of an implicative relation between the more specific variables of field, tenor and mode provides the basis for an analysis of how mother-child dyads might engage in the same general reflection-based social activity in joint book-reading but in variant ways as a function of, for example, values of tenor variables. The concept of a *configuration* of contextual variables gives a potential for analysing how linguistic interaction might be regarded as

variant realizations of the one contextual feature such as reflection-based activity.

Theoretical resources for interpreting context of situation have been expanded considerably, then, beyond Halliday's initial proposals. They appear to provide a productive basis on which description of interaction employing the CMH hypothesis can be developed, and an important resource for describing and interpreting relations between instantiations of the context of culture.

4.7 Modelling options at the semantic stratum: semantic networks

A further theoretical resource needed for this study was a means of conceptualising and describing speakers' selections from the meaning potential of context-types.

Since semantic networks have proved to be a productive approach in SFL studies of socio-semantic variation this descriptive approach is considered. Two approaches are discussed: Halliday's situation-specific semantics and Hasan's message semantics.

4.7.1 Halliday's semantic network for contexts of maternal control

The research environment into which Halliday introduced his descriptive proposal was Bernstein's early work on coding orientation, more specifically on language use in maternal control situations such as 'threat' and 'punishment'. Though the theoretical argument was developed in close association with practical research tasks, Halliday did not in this work attempt to describe a body of data from contexts of language in use. A modified form of the network was, however, used by Turner (1973).

From a linguistic perspective the research problem was to model the options which could be used by mothers to control young children's behaviour, and their linguistic realizations.

The model had to describe two aspects of the meaning potential: the range of semantic options exhaustively up to a specified degree of delicacy; and the linguistic systems through which constraints on the choice of features could be realized.

Halliday claimed for this network only that the options and relations between them were specific to the situation-type.

The behaviour options are specific to the given social context, which determines their meaning; for example, 'threat' in a mother-child control context has a different significance from 'threat' in another social context, such as the operation of a gang. This may affect its realization in language (Halliday, 1973b:79).

Turning to the issue of lexicogrammatical realization statements, the specificity of the realization statement for semantic options tended to vary with the degree of delicacy of the semantic option. For example, in the network fragment for 'threats and warnings' in the maternal control situation type, the realization statement for threat was as general as [clause: declarative]. With movement to a more delicate, dependent option, however, the specificity of the realization statements increased. For example, [threat:physical punishment] was realized through:

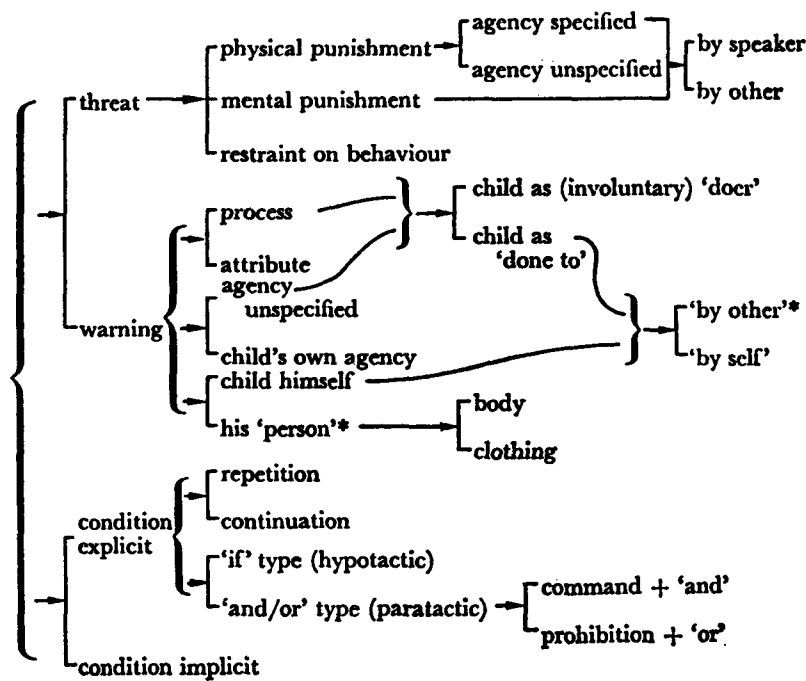
clause: action: voluntary (do type); effective (two-participant); Goal = you; future tense; positive; verb from Roget #972 (or 972, 276) (ibid., 90).

Halliday maintained that a semantic option could be realized by more than one lexicogrammatical option, as the discussion in Section 4.5 of this chapter has previously indicated. To reiterate, he suggested that where there are multiple lexicogrammatical realizations the alternatives are likely to indicate more specific semantic options but:

until such time as a distinction in meaning (in their function in realizing higher-level options) is found, they can be treated as instances of diversification (ibid., 75).

To exemplify this first form of semantic network is presented in Figure 4.4, together with the realization statements in Figure 4.5.

Figure 4.4 Halliday’s semantic network for maternal control situation-type (1973b:89)



Reading from left to right, the network indicates that there is a system in which the options at a primary level of delicacy are [threat] versus [warning]. Speaking informally, the system contrasts a proposal such as (1) ‘I’ll smack you’ with (2) ‘You’ll hurt yourself’. The feature [threat] is the entry condition for a dependent system, [physical punishment] versus [mental punishment] versus [restraint on behaviour]. The example (1) would select [physical punishment]. A further system is then accessible, either [agency specified] or [agency unspecified]. Example (1) selects [agency specified], whereas in contrast a proposal such as (3) ‘You’ll get smacked’ would select [agency unspecified]. For Example (3) [agency unspecified] is not further developed in delicacy, but for (1) there is a further choice since [agency specified] is

the entry condition for the system [by speaker] versus [by other]. This example selects [by speaker]. For this last system there is an alternative pair of entry conditions, represented by the left-facing square bracket. The alternative entry condition to [agency specified] is [mental punishment]. Note that on this description it is not possible to combine specification of agency with mental punishment.

Halliday gives the realization statements for these options as presented in Figure 4.5.

Figure 4.5 Realization statements for Halliday's semantic network for maternal control situation-type

1 threat	clause: declarative
2 physical punishment	clause: action: voluntary (<i>do</i> type); effective (two-participant): Goal = <i>you</i> ; future tense; positive; verb from Roget #972 (or 972, 276)
3 agency specified	voice: active
4 agency unspecified	voice: passive
5 by speaker	Actor/Attribuend = <i>I</i>
6 by other	Actor/Attribuend = <i>Daddy</i> , etc.
7 mental punishment	clause: relational: attributive: Attribute = adjective from Roget #900
8 restraint on behaviour	clause: action; modulation: necessity; Actor = <i>you</i>
9 warning	clause: declarative
10 process	clause: action: superventive (<i>happen</i> type)
11 attribute	clause: relational: attributive: mutative; Attribute = adjective from Roget # 653, 655, 688 etc.
12 agency unspecified	clause: non-resultative; Affected (Actor, Goal or Attribuend) = <i>you/yourself</i> or some form of 'your person'
13 child as 'doer'	voice: active; verb of involuntary action; Actor = <i>you</i>
14 child as 'done to'	voice: non-active; verb of voluntary action, from Roget # 659, 688 etc.
15 child's own agency	clause: resultative; Agent = <i>you</i> ; Affected = <i>yourself</i> or some form of 'your person'
16 child himself	Affected = <i>you/yourself</i>
17 by 'other'	voice: passive: mutative
18 by 'self'	voice: reflexive
19 his 'person'	Affected: some form of 'your person'
20 body	'your person' = <i>your</i> + part of body
21 clothing	'your person' = <i>your</i> + item of clothing
22 condition explicit	clause complex; clause (1 or β): action: effective; anaphoric: verb substitute = <i>do that</i> ; Actor = <i>you</i>
23 repetition	aspect: <i>again</i>
24 continuation	aspect: <i>go on/stop</i> (in negative)... <i>ing</i>
25 'if' type	clause complex: hypotactic: clause β conditional: <i>if</i>
26 'and/or' type	clause complex: paratactic: clause 1 imperative
27 command + 'and'	clause 1 positive; <i>and</i>
28 prohibition + 'or'	clause 1 negative (including form with <i>stop</i>); or
29 condition implicit (---)	

Though it was so specific to one situation-type, this work achieved much more than simply a description of the meaning potential of situations of maternal control. It established that semantic networks were a fruitful research tool, capable of generating explanations of semantic variation which could be interpreted through a theory of social structure. That is to say, research findings resulting from the use of semantic networks were *relational* claims about the linguistic correlates of social structure.

However, there was at this stage no description of options in terms of metafunctionally organised systems in the semantic stratum, which severely constrained the possibility of using the network to analyse sustained stretches of discourse. It also meant that though realization statements did range across metafunctions, options in the experiential metafunctions tended to be the primary resource.

4.7.2 Towards a context-independent semantic network: Hasan's message semantics

Over the past decade Hasan and her colleagues (eg Hasan, 1983; 1986a; 1987; 1989; 1992(a); Hasan and Cloran, 1990; Cloran, 1989) have developed descriptive resources for analysing semantic variation both *within* and *between* situation-types. The notion of descriptive delicacy is crucial in this work, allowing certain general systems of semantic options likely to be relevant across a substantial range of situation-types to be described without implying that the set of options exhausts the description of the meaning potential in any one situation-type. Claims for a 'total' description of the semantic system of English are, of course, explicitly disavowed (see, for example, Hasan 1989:244).

There are three key claims about the context-independence of Hasan's semantic networks.

- i Relationships between contexts are always in practice a matter of relative similarity/difference Networks

are written to be *sufficiently* context-independent to describe the range of semantic options within the specific situation-types in her corpus.

- ii Extensions are likely to presuppose the systems in these networks.
- iii More specific situation-type descriptions might be developed as a partial abstraction from these networks (Hasan, 1989:62).

An immediately apparent advantage of this approach for the current project is that descriptions might be developed for similar but non-identical semiotic environments such as joint book-reading in home and school. Further advantages are the explicitness of the analytic unit, the delicacy of the semantic analysis and the potential to describe multiple meaning selections through the metafunctionally organised systems. The focus of the following sections is a consideration of the first two of these advantages.

4.7.2.1 The semantic unit, message

The nature of the unit which is the point of origin for analysis in semantic networks has been actively debated since 1973 (Turner, 1987). For Hasan, this unit is *message*, glossed as 'the smallest semantic unit that is *capable of realizing an element in the structure of texts*' (Hasan, in press(a):75, original emphasis; also Hasan, mss:56). Message is realized at the lexicogrammatical stratum as clause. At the most primary level of delicacy message is the entry point to the system of options [progressive] versus [punctuative].

To exemplify realization further, for the feature [progressive] the lexicogrammatical realization statement is:

- (1) preselect option *major* at clause rank;
- (2) insert element *Predicator* in clause;
- (3) preselect (an instance of) verbal group at *Predicator* (Hasan, 1992a:91)

Progressive messages are described through sets of related options. These⁷ are given as:

- i systems of interpersonal meanings, for example options in message function (questioning, informing, commanding ...), options in personal evaluation, point of view etc;
- ii systems of experiential meaning, for example the ascription of actional, evaluational etc roles, identification, definition; construction of time etc;
- iii systems of logical meaning, for example cause, condition, and metatextual relations etc.;
- iv systems of textual meanings, for example options in topic maintenance, topic change etc (Hasan, 1989:244).

In contrast to [progressive], the feature [punctuative] is realized by clauses which do not select for Predicator, typically minor clauses. Some informal examples of punctuative messages are formulaic greetings, address, and reactive expressions such as 'gosh' and 'oh dear'.

Punctuative messages are not, naturally, described through the metafunctional systems of options, but alternatively on a separate small network with very simple systems of (usually binary) choice (Hasan, 1983).

Since it is possible for the same orthographic/phonological shapes to realize different lexicogrammatical selections, both co-textual and contextual information can be significant in determining selection from this primary system. To illustrate, when the expression 'that's it' signals the conclusion of an activity, as in 'That's it, time for bed now' the message realized by that expression selects [punctuative]. Alternatively, when a speaker gives information in a comment

⁷ Hasan's description separates the experiential from the logical metafunctions so that there is no internal grouping in an ideational metafunction as in Halliday's description.

such as 'That's it, that's the one I meant' the message selects [progressive].

Considering the relation between clause and message from the perspective of lexicogrammar, there are certain further significant constraints. Projecting clauses realize the feature [prefaced], rather than a separate message.

Informally speaking, they realize the meaning that the message is a metarepresentation. For example, the clause complex 'She said that they would go to Port Douglas' realizes a single message, and this message selects the feature [prefaced], which is realized through the projecting clause 'she said'. This semantic feature is itself the entry condition to several further dependent systems which describe more delicate meaning options in 'metarepresenting', realized through the lexicogrammatical features of projecting clause. Other meanings 'of' this message are described as features realized through lexicogrammatical options selected by the projected clause.

The examples in Figure 4.6 briefly illustrate some of the major types of relationships between message and clause boundaries. The symbol (x) is used to indicate a message address, || a ranking clause, << >> an included clause and [[]] an embedded clause boundary. Labels in boldface beneath each example indicate the main feature under focus, using the terminology proposed by Halliday (1985a).

Figure 4.6: Selected examples of the relationship between clause and message boundaries in Hasan's message semantics

- a. ||(x) There's Lucy||(x) and there's um his friend
paratactic clause expansion: two messages
- b. ||(x) It is not like yours||(x) which is moist
hypotactic clause expansion: two messages
- d. ||(x) When I was about his age||(x) a friend of mine and myself went to stay with her granny up on the northern beaches at Mona Vale||(x) and we went to the beach all day||(x) and we got very very burnt
hypotactic and paratactic clause expansion: four messages
- e. ||(x) And << >> we were starting to feel a bit hot|| <<(x) when we got home>>
included hypotactic clause: two messages
- f. ||(x) The itchiness is [[when the skin starts coming off]]
embedded clause as Participant: one message
- g. ||(x) His mother soothed the parts [[that were most burnt]]
embedded clause acting as Qualifier in a nominal group: one message
- h. ||(x) "Well, he'll know better next time," said his mum.
paratactic projection: one message
- i. ||(x) Jack said, "I'll have to lick around the sides||(x) and get the drips of icecream"
paratactic projection, and paratactic expansion of the projected clause: two messages
- j. ||(x) Jack said that his mother had told him that Joanne was in the water
two hypotactic projections: one message

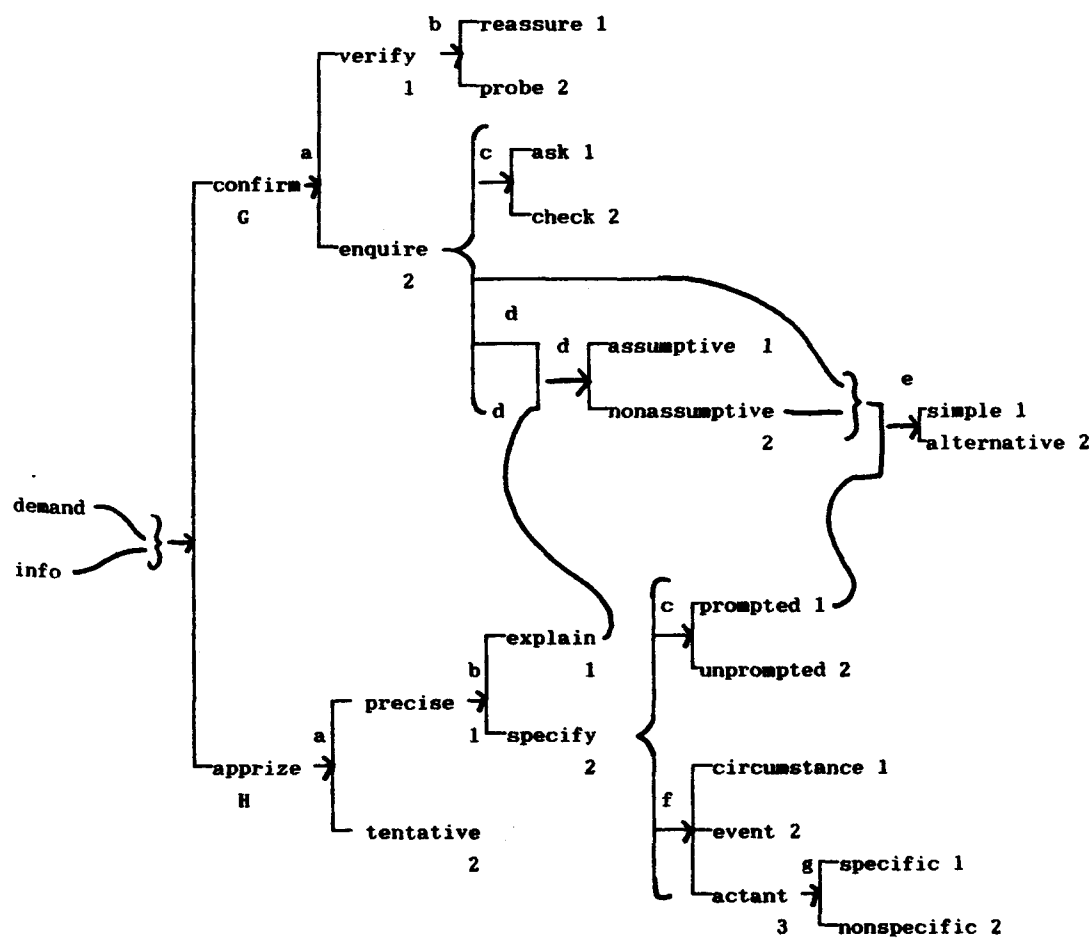
One of the advantages of the unit message, apart from the facility it provides for subsequent detailed semantic description, is that it gives an explicit basis for comparing the extent of interaction in joint book-reading, a comparison it would be difficult to achieve usefully through strategies timing or word counts.

4.7.2.2 An illustration of a fragment of a semantic network in Hasan's message semantics

In order to exemplify one aspect of the strategy for describing progressive messages a fragment of one of Hasan's networks will be presented, then used to analyse a short stretch of discourse. Since the problem of describing various kinds of questions, or more precisely demands for

information⁸, has been raised frequently in the field this aspect of Hasan's networks has been selected and is presented as Figure 4.7.

Figure 4.7 Hasan's network of choices in making demands for information



⁸ This network has been elaborated during its use in various phases of research by Hasan and her colleagues. The version discussed here is that used in workshops at the Systemic Linguistic Summer School for Teachers, Brisbane, 1991.

Figure 4.8 Hasan's realization statements for some options in asking questions

G:	<u>confirm</u>	major:indicative	S F P
a1:	verify	major:indic:declarative:tagged	S ^ F ^ P...F ^ P
a2:	enquire	major:indicative	S F P
b1:	reassure	major:indic:declarative:tagged:reversed	
		(1) S ^ Fneg ^ P...Fpos ^ S	
		(2) S ^ Fpos ^ P...Fneg ^ S	
b2:	probe	major:indic:declarative:tagged:constant	
c1:	ask	S ^ Fpos ^ P...F ^ S	
c2:	check	major:indic:interrog:polar	
		F ^ S ^ P...#	
d1	assumptive	major:indic:declarative:untagged Tone2	
d2	nonassumptive	S ^ F ^ P...# Rising tone	
e1:	simple	F preselects negative polarity	S Fneg...#
e2:	alternative	F preselects positive polarity	S Fpos...#
		as for c1 or c2	
		clause complex	1 ^ + 2
		1 major:indic; nonellip	S F P...#
		2 major:extending:alternative	
		Conjunction preselects <u>or</u>	
		elliptical:maximum	
		all but one element elliptically presupposed	
H:	<u>apprize</u>	major:indic:interrog:nonpolar	wh- S F P
a1:	precise	major:indic:interrog:nonpolar	wh- S F P
a2:	tentative	major:indic:nonpolar:R-interrog	
		elliptical:maximum:formal	
		preselects as Adjunct with <u>what about</u> + nom group	
b1:	explain	as a1; wh- conflated with Adjunct	
		and Circumstance of cause <u>why</u> ^ F ^ S ^ P	
b2:	specify	as a1	
c1:	prompted	major:indic:nonpolar	wh- S F P...#
		followed by major:indic Tone 2	
		elliptical:maximum	
		all but one element elliptically presupposed	
		non-ellip element "copies" wh- element	
c2:	unprompted	as a1	
d1:	assumptive	as b1;	
		F preselects negative polarity <u>why</u> ^ Fneg ^ S ^ P	
d2:	nonassumptive	as b1;	
		F preselects positive polarity <u>why</u> ^ Fpos ^ S ^ P	
e1:	simple	as c1	
e2:	alternative	cl. comp. Tone 2 concord wh- S F P...# 1 ^ 2	
		1 = major:indic	
		elliptical:maximum	
		all but one element elliptically presupposed	
		non-ellip element "copies" wh- element	
		2 = major:extending:alternative	
		Conjunction preselects <u>or</u>	
		elliptical:maximum as for e2 element 1	
f1:	circumstance	as b2; wh- conflates with Adj wh-/Adj ^ F ^ S ^ P	
f2:	event	as b2; wh- conflates with C	
		C preselects <u>what</u>	
		P preselects lex verb <u>do</u> or <u>happen</u> what ^ F ^ S ^ do	
f3:	actant	as b2;	
		wh- conflates with either S or C	
		P outclassifies lex verb <u>do</u>	
		(1) what (Thing) ^ F ^ S ^ P; (2) who ^ F ^ P	
g1:	specific	as b2;	
		wh- conflates with Deictic	
		(1) what/which..Thing ^ F ^ S ^ P	
		(2) what/which..Thing ^ F ^ P	
g2:	nonspecific	wh- conflates as in f3	
		S or C preselect simple nom group Thing	
		wh- conflates with Thing	
		(1) what ^ F ^ S ^ P; (2) who or what ^ F ^ P	

The stretch of discourse which will be used to exemplify the approach to analysis through the semantic network is drawn from data presented by Tizard and Hughes (1984). As has been indicated in the preceding section, each message could be described simultaneously on all four of the metafunctionally organised sets of options, but in order to maintain a reasonable economy in the presentation only one aspect of resources in one metafunction is presented.

It will be recalled that Tizard and Hughes (1984) obtained tape-recordings of everyday conversations between mothers and their four-year-old daughters in the home for afternoon stretches of 2.5 hours. During one such recording in a middle-class family, a window-cleaner arrived and began his work. The child was puzzled by the problem of money exchange for this work. This puzzlement was apparently initiated by a visit by a neighbour, during which she mentioned that she was having to pay other neighbours' bills for the work because they were out. One result was that the child, Rosey, began to question the nature of the wage relation. The interaction with her mother on the topic was sustained for some time, during which Rosey attempted to clarify her uncertainty about the direction of the money exchange. A sample of the interaction is presented as Example 4.4.

Example 4.4 Sample interaction between Rosey and her mother, to illustrate a 'passage of intellectual search' in data from Tizard and Hughes (1984:120-1).

Cd: Mummy?
Mh: Mmm.
Cd: Umm ... She can't pay everybody's, er ... all the bills to the window-cleaner, can she?
Mh: No, she can't pay everybody's bills ... she sometimes pays mine if I'm out.
Cd: 'Cause it's fair.
Mh: Mm, it is.
Cd: Umm, but where does she leave the money?
Mh: She doesn't leave it anywhere, she hands it to the window-cleaner, after he's finished.
Cd: And then she gives it to us?
Mh: No, no, she doesn't have to pay us.
Cd: Then the window-cleaner gives it to us?
Mh: No, we give the window-cleaner money, he does work for us, and we give him money.
Cd: Why?
Mh: Well, because he's been working for us, cleaning windows. He doesn't do it for nothing.

Cd: Why do you have money if you have ... if people clean your windows?
 Mh: Well, the window cleaner needs money, doesn't he?
 Cd: Why?
 Mh: To buy clothes for his children and food for them to eat.
 Cd: Well, sometimes window-cleaners don't have children.
 Mh: Quite often they do.
 Cd: And something on his own to eat, and for curtains?
 Mh: And for paying his gas bill, and electricity bill. And for paying for his petrol for his car. All sorts of things you have to pay for, you see. You have to earn money somehow, and he earns it by cleaning other people's windows, and big shop windows and things.
 Cd: And then the person who got the money gives it to people ...

Taking the punctuation as given by Tizard and Hughes, the following utterances include messages which demand information:

- 1 Cd: Ummm ... She can't pay everybody's, er ... all the bills to the window-cleaner, can she?
- 2 Cd: Ummm, but where does she leave the money?
- 3 Cd: And then she gives it to us?
- 4 Cd: Then the window-cleaner gives it to us?
- 5 Cd: Why?
- 6 Cd: Why do you have money if you have ... if people clean your windows?
- 7 Mh: Well, the window cleaner needs money, doesn't he?
- 8 Cd: Why?
- 9 Cd: And something on his own to eat, and for curtains?

Using Hasan's definition of message, Utterances 1-5, 7 and 8 comprise one message each. Utterance 6 comprises two messages:

- 6 Cd: (x) Why do you have money (x) if you have ... if people clean your windows?

The first message here is the demand for information, which is supplemented by the second 'conditional' message. (Note that the incomplete form 'If you have ...' is not counted separately.)

Utterance 9 is an interesting case which, depending on the intonation contours, might be interpreted as one nominal group complex if it were spoken on a single rising contour (Halliday's Tone 2), or as two messages if spoken on two tone contours, only the second of which was on Tone 2. The

punctuation suggests the second reading⁹, which yields the following analysis:

9 Cd: (x) And something on his own to eat, (x) and for curtains?

The second message in Utterance 9 is, on this reading, a demand for information.

The demands for information within these nine utterances are analysed using Hasan's network as follows. Selection expressions at the semantic stratum are shown in bold within square brackets beneath each message and assume the prior selection of the features [demand;information]. (Round brackets indicate ellipsed elements of lexicogrammar which have been recovered.)

Figure 4.9 Analysis of demands for information using Hasan's description

Utterance Number	Message
1	Umm ... She can't pay everybody's, er ... all the bills to the window-cleaner, can she? [confirm:verify:reassure]
2	Umm, but where does she leave the money? [apprize:precise:specify:circumstance:unprompted]
3	And then she gives it to us? [confirm:enquire:check:nonassumptive:simple]
4	Then the window-cleaner gives it to us? [confirm:enquire:check:nonassumptive:simple]
5	Why (do we give the window-cleaner money)? [apprize:precise:explain:nonassumptive:simple]
6	Why do you have money? [apprize:precise:explain:nonassumptive:simple]
7	Well, the window cleaner needs money, doesn't he? [confirm:verify:reassure]

⁹ This analysis is, though, a little uncertain, given the punctuation used in 'and he earns it by cleaning other people's windows, and big shop windows and things', where the comma almost certainly breaks a nominal group complex.

8 Why (does the window-cleaner need money)?
 [apprize:precise:explain:nonassumptive:simple]

9 and (the window-cleaner needs money) for curtains?
 [confirm:enquire:check:nonassumptive:simple]

The basis for the analysis of the selection of options, as has previously been argued, is the set of lexicogrammatical realization statements. In effect, the lexicogrammatical analysis provides the set of criteria through which the semantic features are recognised. To illustrate this process, two specific examples from the preceding set are considered.

The message 'Well, the window cleaner needs money, doesn't he?' is analysed as [confirm:verify:reassure] since this option is realized by the lexicogrammatical options [clause:major:indicative:declarative:tagged:reversed]. The second message 'And then she gives it to us?' is analysed as [confirm:enquire:check:nonassumptive:simple] because this option preselects the lexicogrammatical options [clause:major:indicative:declarative:untagged:Tone 2:positive].

In passing, two examples of punctuative messages can be noted at the beginning of this transcript:

Cd: Mummy?
 Mh: Mmmm.

Neither message is realized by a clause selecting Predicator in the lexicogrammatical stratum. Messages in all other utterances in this excerpt select the feature [progressive].

Even from this very limited exemplification of one aspect of the analysis made possible by message semantics, some tentative hypotheses about the features of the language which might have led Tizard and Hughes to advance it as an example of intellectual search (Tizard and Hughes, 1984:121) can be observed. One fairly obvious attribute is the selection on three occasions in this short stretch of the option [apprize:precise:explain] by the child. Another interesting

attribute is the frequent selection of the option [confirm:enquire:check:nonassumptive:simple], suggesting that the child is carefully testing her current understanding of the money exchange relation. There is a further aspect of the mother's use of the option [confirm:verify:reassure], perhaps indicating her belief that relevant knowledge is already shared with her daughter, and that the child is expected to use it through her explicit formulations in the wording of these questions.

When further simultaneous analyses of features such as the giving of information, topic maintenance, answers and supplementation of messages are undertaken, a dense description is achieved through the message semantic approach.

Before such analyses could be undertaken with the data for this study two further tasks had to be completed. One was the systematic preparation of transcripts for analysis, including basic analysis into semantic messages. The other was the elaboration of Hasan's semantic network for the purposes of this study. Approaches to the first task are described in Sections 4.8 and 4.9, and to the second in the following chapter.

4.8 Conventions for transcription and message representation

The following transcript and message representation conventions were adopted:

- i Interactive text is presented as plain text, and reading of object text in boldface type.
- ii Speakers are represented as Mother = Mh;; Child = Cd;; Teacher = Tr;; and Children = Chn:.
- iii Interpolated comments to explain an aspect of interaction are presented in large block capitals in round brackets, thus (CHILD COUGHS).
- iv Each interactive message is displayed on a separate line within speaker turns, numbered sequentially through the whole interactive text and with the

identity of the speaker indicated through the initial letter of the message identification, eg M001;

- v Object text messages are displayed as continuous text within each stretch of reading, with message boundaries indicated by (T1), (T2) ...
- vi Incomplete interactive messages are identified by speaker and by number within individual transcripts, thus IC01, IM01. Incomplete object text messages are identified by IT01 ...
- vii Pauses during speech which are longer than might normally be anticipated are represented as ... Where a pause extends over 10 seconds or more it is identified as (LENGTHY PAUSE). This sometimes occurs, for example, while a child peruses a book.
- viii Stretches of speech which are somewhat inaudible and which it is not possible to transcribe with complete confidence are identified by bracketing the wording and preceding it with a question mark, thus (?What was his name?)
- ix Simultaneous speech is identified by * at the relevant point in the two messages. Where the following message is also spoken simultaneously the continuation is indicated by **, etc.
- x Interrupting messages, which intrude into the wording of a previously commenced message, are represented within angled double brackets. The location in the interrupted message is shown by a set of angled double brackets, thus << >>.

To illustrate the use of many of these conventions a sample of transcript is presented as Example 4.5.

Example 4.5 Transcript sample to illustrate display conventions

Mh: 01 Do you want those Paddington bear books?
02 Let's have a look at that one.
(T1) *Paddington at the fair.* (LENGTHY PAUSE)
03 There you are, sweetie pie. (SOUND OF PLATES BEING MOVED IN THE BACKGROUND)
04 Now what's he doing there on the cover?
Cd: 05 Not a cover.
Mh: 06 *Yes it is.
Cd: 07 *This book doesn't have any cover.
08 Um.
Mh: 09 It's the cover of the book.
10 See?
Cd: 11 Let me see.
Mh: 12 What part of the book is the cover?
13 Look.

14 What's he doing there?
 Cd: 15 Um ... he's ... he's riding on a horsey.
 Mh: 16 On?
 17 What's that called?
 Cd: 18 *A merry-go-round.
 Mh: 19 *You (?remember).
 20 That's right.
 Cd: 21 And I went there at the Exp ... at
 Mh: 22 The show.
 Cd: 23 Yeah ... at the show.
 24 And remember we saw Sophie?
 Mh: 25 That's right, *yes.
 Cd: 26 *But where did we see Sarah?
 27 Sarah, she saw us somewhere too.
 Mh: 26 Did she?
 27 I can't remember where we saw Sarah.
 Cd: 28 Exhibition.
 Mh: 29 Was it?

4.9 Some additional conventions for message analysis

Analysis of both the interactive text data and object text readings into messages was made following the principles described by Hasan (mss), and discussed in Section 4.7.2.1. Supplementary to that information, some further aspects of semantic message analysis particularly salient to this study are noted briefly.

The first issue concerns analysis of yes/no. When the item occurs contiguously with a full or elliptical message which is a direct response to a confirmation question, it is treated by Hasan (mss:II, 86) as a part of such a message. A similar approach is adopted here for occurrences of yes/no which are contiguous with full or elliptical messages which repeat or give assent to an immediately preceding statement. This is illustrated in Example 4.5, in Message 23 'Yeah ... at the show', where the child's message is an elliptical repetition of the mother's preceding statement, which in itself is partly an elliptical repetition of the message in the child's preceding utterance. The 'yes' which occurs in Message 25, in the mother's response to the child's confirmation question, is an interesting case. When the anaphoric reference of 'that' is included fully in the first part of the clause, its wording would perhaps be 'That we saw Sophie is right.' The following 'yes' therefore simply repeats the positive polarity of the

clause realizing Message 25. Again it is interpreted as part of that message because of the item's contiguity with the positive response to the child's confirmation question.

A frequently occurring feature of interaction in joint book-reading is for a mother or teacher to prompt a child to complete the 'reading' of an object text message. Example 4.6 provides an instance of this type of interaction. In Message 01 the mother prompts the child to supply a refrain which is very familiar to her from repeated readings of this object text.

Example 4.6 Transcript excerpt to illustrate demands for completion of the wording of an object text message

Mh: (T34) "Hey let's go you guys," said Jack. (T35) "Got your towels?" mum asked.
 (T36) Everyone got a kiss goodbye ...
01 (T37) The last thing Jack's mother said to them was?
 *"Don't get burnt."
Cd: 02 *"Don't get burnt."
 03 But Jack Jack did, didn't he?

Messages of this kind are usually read on what would be described as Tone 2 in the SFL framework (Halliday, 1985b). Mothers and teachers also frequently pause at the end of the message for the child to give the items and structure which complete the message. Often mothers and teachers themselves also complete the structure.

Such messages contribute, in some senses, both to the reading of the object text and also to the interaction and it is descriptively important to capture both aspects. Consequently the object text message which requires completion is regarded both as an object text message and as a message in the interactive text. Within the interactive text, because the utterance is so formulaic, both the prompting message and the child's response in completing the message are analysed as a type of punctuative message. The child's response is clearly not a part of the object text, since it echoes one that is already in the object text. Moreover, it is interactive in nature, being a response to a demand (of a register-specific

kind) for the completion of the message the caregiver had previously read. When the mother also completed the object text message her utterance was not further counted as either interactive or object text since it did not contribute an additional message. These procedures are shown in the analysis of Messages 01 and 02 in Example 4.6. The semantic network description of these as punctuative messages is given in Section 5.7 of Chapter Five.

Such patterns of interaction are distinguished from those in which a question is raised in the wording of the object text itself, to which the child makes some reply. The excerpt presented in Example 4.7 illustrates this phenomenon.

Example 4.7 Transcript excerpt to illustrate demands for response made in the wording of an object text

Mh: (T58) Foam like whipped cream. (T59) He tried to bark, (T60) as if to say
 "Stop it! (T61) Stop it!" (T62) but he couldn't bark. (T63) Something was
 wrong. (T64) Do you know what was wrong?
Cd: C001 He was sick.
Mh: M002 Mm.

Messages which respond to questions of this kind are treated as part of the interactive text, and since the child provides non-routinised information they are treated as progressive messages.

Children sometimes accompanied their mothers and teachers in reading familiar text, joining in refrains such as 'I'll huff and I'll puff and I'll blow your house in'. Such material is treated as contributing to interactive text and described through an option in the network of punctuative features, similarly presented in Section 5.7 of Chapter Five.

4.10 Description of the extent of object text reading

Object texts were also analysed into semantic messages in order to describe the extent of reading. Calculating the number of object text messages actually read was considered to be a more theoretically consistent and informative approach to

describing extent of reading than other measures such as the amount of time taken in object text reading. Time of reading can obviously be considerably influenced by style and speed of reading.

Some analysis conventions were necessitated by the fact that the reading of the object text was not a straightforward sustained reading of the print on the page. For example, when mothers resumed reading after a stretch of interactive text had concluded they sometimes repeated an object text message which had been read previously. Such repetitions were not numbered, and did not therefore contribute to the total of object text messages read during the session. However, where it was clear from the interactive text that object text messages were repeated in order to focus attention on some linguistic feature, the messages were included in the total.

The lexicogrammatical structure of the language of object texts was occasionally ambiguous, resulting in some difficulty in defining message boundaries. Example 4.8 provides an instance of this problem. It is taken from the beginning of a transcript.

Example 4.8

Mh: (T1) Upside down, (T2) going in. (T3) Inside. (T4) Inside a box. (THERE IS A BRIEF INTERRUPTION FROM ANOTHER ADULT) (T5) Upside down.
(IT1) *In
Cd: C001 *Upside down.
Mh: (T6) Inside a box upside down.

The reading of the lexicogrammatical structures realizing the numbered messages in the object text is as follows:

'Upside down' forms part of an elliptical clause structure realizing a message, in which reference is made to some feature of the illustration in the object text such as 'The animal is upside down'.

'Going in' is an expanding hypotactic clause, and thus realizes a distinct message.

'Inside' forms part of an elliptical clause structure, again referring to a feature of the illustration and realizing a message.

'Inside a box' also forms part of an elliptical clause, which is distinct from the preceding clause structure and therefore realizes a distinct message. The basis for this reading is the fact that each stretch identified as a message is read on a separate tone group, with a significant pause separating them.

'Inside a box upside down' is a paratactically related phrase complex forming part of the structure of an elliptical clause which realizes a separate message. Again, the basis for this reading is the stretch identified as a message is read on a single tone, Tone 1.

In summary, the method used to resolve such uncertainties was to consider the tone selected by the mother in order to ascertain the most probable reading of the elliptical clause structure, and to determine its status in the realization of message(s).

4.11 Summary

On the basis of the arguments presented in this chapter, Hasan's proposals as to the theoretical requisites for an analysis of processes of semiotic mediation, and of a potential for different forms of semiotic mediation to be developed intra-culturally, have been adopted for this study. They are preferred, on both theoretical and empirical grounds, to a more global analysis of speech genre (Wertsch, 1991) or the specifically local analyses of interaction which have tended to be selected in previous studies of joint book-reading.

These resources take the study a good way towards meeting the requirement, described in Chapter Three, Section 3.2, that analyses of socio-semantic variation in joint book-reading be

based on an explicit linguistic analysis of transcribed interaction which would 'net in', so to speak, multiple features of linguistic meaning. The further necessary step was development of a semantic network suitable for description of interaction in joint book-reading. This task is addressed in Chapter Five.

CHAPTER FIVE

A Semantic Network For The Description Of Linguistic Interaction In Joint Book-reading

5.1 Introduction

The semantic network which was used to describe interactive text data will be introduced in this chapter. The discussion draws directly on concepts introduced in Chapter Four, where the basis of an SFL approach to theorising context of situation as a descriptive stratum was outlined. In that chapter, also, specific claims of SFL concerning relations between this stratum and those of semantics and lexicogrammar were considered, and the use of a semantic network for the analysis of interactive discourse in joint book-reading, following work by Halliday (1973b), Hasan (eg, 1983; 1986a; 1989; 1991b) and Turner (1973, 1987), was proposed. The necessary further step was to develop a semantic network description suitable for the specific purposes of this project.

The network to be discussed in this chapter is adapted from Hasan (1983). Some important modification and extension has been made for the particular requirements of this study, though Hasan's network has been the point of departure and it is her conceptualization of a message semantic network which underlies the descriptions.

The full network used for message analysis is presented as Appendix 6. Within the available space it is not possible to provide a comprehensive discussion of all aspects of the semantic network (as, analogously, it would not be possible to provide a comprehensive description of the whole of lexicogrammatical networks used in SFL descriptions of that stratum). To do so would require not only description of all the various systems of options, but additionally for each option both lexicogrammatical realization statements and selection expressions.

Selection of some network fragments for detailed presentation was therefore necessary. The basis for this selection was the relevance of the fragments to the discussion in the following two chapters. However, one relevant fragment, that for describing questions formed the basis of exposition in Chapter Four, Section 4.7.2.2 and is therefore not re-presented though it is material to the discussion in the following two chapters.

Six fragments of the network will be presented in detail, each deriving from one of the metafunctions. Though for convenience the fragments are presented separately they are integrated theoretically through the means discussed in Chapter Four. The convention (...) indicates that a further system derives from that specific point in the network but is not discussed at that point.

In the description of messages as defined by Hasan (1983) the primary system represents a choice between [progressive] or [punctuative]. Systems deriving from [progressive] obviously form the major part of the descriptive technique. They will be discussed first, in the following order:

- logical meanings: prefacing of messages

- textual meanings: selected choices for turn-taking and responses, and topic maintenance and change

- logical meanings: supplementation of messages

- experiential meanings: process and entities

- interpersonal meanings: messages which demand further information

Finally, some systems available to punctuative messages will be outlined.

Following a method of description developed by Cloran (1993) I will adopt a two-part approach. This is:

- i presentation of features discursively and through examples, which are drawn from data for the current project except for a small number of occasions where, for economy in the presentation, a constructed example is used. These occasions are clearly indicated. Some stretches of discourse serve as examples on more than one occasion in order to illustrate how different analyses, or more delicate analyses within the same region of the network, extend the description. On occasion a small section of irrelevant discourse such as a minor interruption is omitted from the example of interaction. These points of omission are marked by (...) in the column numbering messages. Incomplete messages are identified by I00 in the same column.
- ii presentation of the specific network fragment and realization statements for each option. Because some network fragments involve complex relations, and the exposition of the systems is rather detailed, in some cases the fragment is initially presented in two parts to assist readers to image the relations between systems initially.

Systemic functional grammar is a description 'pushed in the direction of semantics' (Halliday, 1985a:xix). The systemic options at the semantic stratum are realizationally related to those at the lexicogrammatical stratum. For this reason an effort has been made to ensure that labels for the options at the two strata are distinct. However, precisely because of their close realizational relation, and the need to make labels mnemonically effective, sometimes the same label is used for options at both strata. However, the semantic options are always shown in bold, for example [**mental**], while those at the lexicogrammatical stratum are non-bold, as in [mental]. Punctuation is also significant in the presentation of the features selected by a particular message. A colon indicates that the following feature is selected from a

dependent system, and a semi-colon that the following feature is selected from a different system.

5.2 Prefacing elements of messages

Three simultaneous systems describe semantic features realized through projecting clauses:

- i the projection of information as subjective or objective;
- ii the form of activity through which the projecting is enacted;
- iii whether the prefacing element of the message recursively selects a further prefacing element.

In the first of these systems the feature [subjective] is contrasted with [objective]. Messages which select [subjective] include a prefacing element which construes the rest of the message as a personal locution, whereas the parallel element in [objective] messages construes the rest of the message as a 'general' fact. The contrast is shown through messages in Examples 5.1 and 5.2.

Example 5.1

Mh: 01 What's the matter?
Cd: 02 I hope they're not this big.
Mh: 03 I'm sure they're not.

Messages 02 and 03 select [prefaced:subjective].

Example 5.2

Mh: 01 He stood there like that ...
100 then he stood like
02 then he jumped a little bit
03 then he climbed up onto the roof
04 and they went choo choo choo quickly
05 and it looked like he jumped.

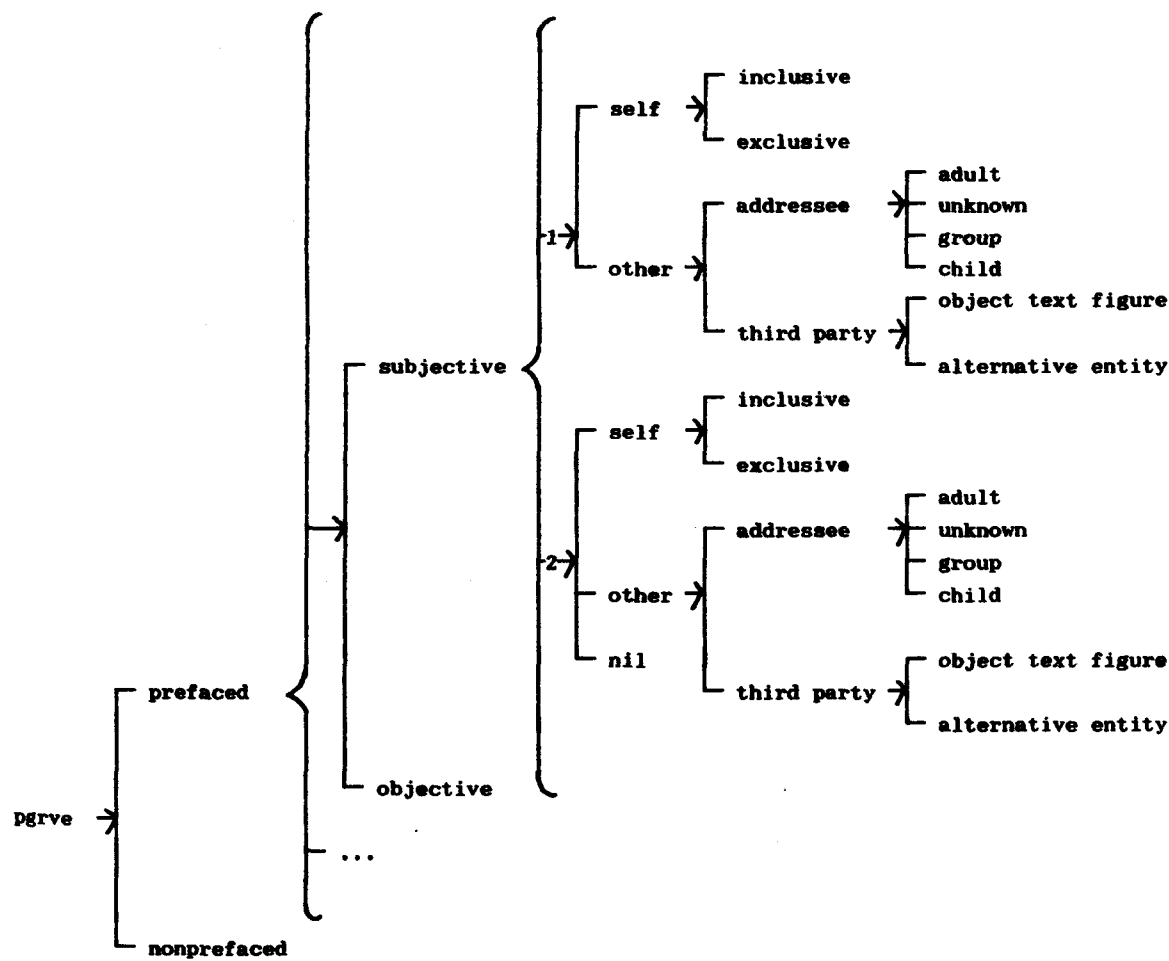
Message 05 selects [prefaced:objective].

Two simultaneous systems of choice depend on the option [subjective]. These are numbered (1) and (2) in Figure 5.1.

The first dependent system, and the more delicate systems which in turn depend on it, describe the element indicating the point of view through which the rest of the message is prefaced. The options in this sub-system are [self] or [other]. In turn [self] is described as [inclusive] or [exclusive], depending on whether or not the first person reference is singular or plural. The feature [other] is further described through a system [addressee] versus [third party], indicating whether the reference to an element other than self is to another interactant in joint book-reading or to a non-interactant figure. Each of these options is then described through further categories given by the contextual variable, field: referential domain. For [addressee] the dependent system contrasts [adult], the adult involved in joint book-reading; [group], the participating school class group; [child], the participating child; or [unknown]. For [third party] the more delicate options are [object text character] or [alternative entity] in order to capture a difference between messages prefaced through a character in an object text or, alternatively, some other figure materially 'external' to joint book-reading contexts.

The selection from preface system plays an important part in the construal of 'point of view' (Cloran, 1993) and has been shown to contribute to individuation (Hasan, 1989; 1991). To enable the discussion of more delicate options, Figure 5.1 represents a view of the options relevant to the preface system. The full network fragment, including further systems of choice for prefaced messages, is subsequently presented in Figure 5.2.

Figure 5.1 Some choices for prefacing messages
concerning the construction of 'point of
view'



The second dependent system deriving simultaneously from [subjective], labelled (2) in Figure 5.1, describes the figure to whom the rest of the prefaced message is addressed. It is developed in the same way as the description given above for the element in the preceding paragraph, except for the additional feature [nil]. The selection of this feature means that no reference is made to an addressee in the prefacing element.

Examples 5.3 - 5.5 present instances of messages selecting a range of these features. A description of them, together with realization statements, follows.

Example 5.3

Mh: And we must ask Felicity Flossyfleece, the flying doctor. She's been flying
 the outback for years.
01 Let's see if we get any idea from the pictures.

Message 01 selects [prefaced:(1) self:inclusive;(2) nil].

Example 5.4

Mh 01 Are they in the water?
Cd: 02 Yes.
Mh: 03 Or going down to the water perhaps?
Cd: 04 Yes.
Mh: 05 I don't know where they are.
Cd: 06 I know where they are.

Messages 05 and 06 select [prefaced:(1) self:exclusive;(2) nil].

Example 5.5

Mh: 01 And << >> did Motty tell you to watch this hand
 02 <<when you breathe in>>?
Cd: 03 Mm.
Mh: 04 Did he say, "Turn your head
 05 and watch your hand"?

Motty is a member of the child's family. Message 01 selects [prefaced:(1) other:third party:alternative entity;(2) other:addressee:child]. Message 04 selects [prefaced:(1) other:third party:alternative entity;(2) nil].

Realization statements for the options which derive from [prefaced] and which have been discussed to this point are:

subjective	Either: (1) clause:major Subject (S) in projecting clause preselects personal pronominal or kin term or term of endearment or: (2) clause:hypotactic:nonfinite
objective	S in projecting clause preselects <u>it</u>
System (1)	
self:	
inclusive	S conflates with Sayer or Senser; Either: (1) S in projecting clause preselects 1st person plural pronominal or (2) S preselects <u>let's</u>
self:	
exclusive	S conflates with Sayer or Senser

	S in projecting clause preselects 1st person singular pronominal
other	S in projecting clause preselects reference to entity other than speaker
addressee	S in projecting clause preselects reference to an addressee
third party	S in projecting clause preselects reference to entity other than interactants
adult	S in projecting clause preselects reference to the participating mother or participating teacher
unknown group	wh/ conflates with S in projecting clause preselects reference to the K school class group
child	S in projecting clause preselects reference to the participating child
third party	S in projecting clause preselects reference to an entity other than an interactant
object text figure	S in projecting clause preselects reference to a figure in the object text
alternative entity	S in projecting clause preselects reference to some alternative entity other than those given in the preceding realization statements

System (2)

As for System (1), except that Receiver is substituted for Subject in each case;

and, additionally:

nil	Projecting clause outclassifies Receiver
-----	--

The second primary system deriving from the option [prefaced] is [experiential] versus [interpersonal]. The system contrasts semantic features realized chiefly by the Process in the clause which realizes the prefacing element. A distinction is made between representation of experiential meaning and of interpersonal meaning realized through deployment of the resources of interpersonal grammatical metaphor (Halliday, 1985a:332-4).

The feature [experiential] is more delicately described by a sub-system [saying] versus [idea], and [idea] is further

described in terms of [cognition], [reaction] or [perception]. In Example 5.6, Messages 01 and 07 select [experiential:idea:cognition] and Message 06 [experiential:saying].

Example 5.6

Mh: "Toad steals a motor car". Toad eagerly scrambled into the
seat vacated by the driver.
01 Remember he was dressed up like an old woman
02 and the car came along
03 and they offered he offered him a lift?
04 Remember that?
Cd: 05 Mm.
Mh: 06 And then he said that he would like to have a go at the
driving
07 and they all thought that was such a funny idea

The resources of interpersonal grammatical metaphor are a means through which some Mental and Relational:attributive clauses project other clauses, as in the clause complex introduced in Example 5.2 above, 'and it looked like he jumped'. Semantically the effect is for the message to be prefaced with an interpersonal judgement about the meanings of the following part of the message.

A prefacing element which selects [interpersonal] also selects from the dependent system [attitudinal] versus [nonattitudinal]. Messages which select [attitudinal] express an explicit attitude to the projected element of the message, such as Message 02 in Example 5.7 (which is a constructed example). The feature [nonattitudinal] is itself further described in terms of the system [nonmodal] versus [modal]. Messages which select the preface [modal] express a judgement about the probability, obligatoriness, certainty and so on, of the projected element of the message, again through the resources of interpersonal grammatical metaphor.

Alternatively, messages with the preface [nonmodal] construe the projected element in terms of its status as an 'actual' or 'apparent' event. In Example 5.7 Message 03 also selects [modal]. In Example 5.8 Message 06 selects [nonmodal] and Messages 03 and 05 select [modal].

Example 5.7

Mh: 01 What's the matter?
Cd: 02 I'm glad they're not this big.
Mh: 03 I'm sure they're not.

Example 5.8

Mh: 01 Can I count them?
Cd: 02 There's too much.
Mh: 03 I think there's probably about a hundred.
04 What do you reckon?
Cd: 05 I think a hundred and five twenty.
Mh: 06 It doesn't look as though there's enough room on that bus for people, does there?

Realization statements for these options are:

experiential	Process in projecting clause preselects either Mental or Verbal in congruent form
saying	Process in projecting clause preselects Verbal
idea	Process in projecting clause preselects Mental
cognition	Process in projecting clause preselects Mental: cognition
perception	Process in projecting clause preselects Mental: perception
reaction	Process in projecting clause preselects Mental: reaction
interpersonal	Process in projecting clause preselects Mental:cognition or Relational:intensive: attributive as grammatical metaphor
attitudinal	Attribute preselects Epithet/Head. Epithet from class adjective:reactive, eg <u>happy</u> , <u>sad</u> , puzzled, worried etc.
nonattitudinal ¹	
nonmodal	Process preselects <u>happen</u> , <u>seem</u> or <u>look</u>
modal	Either (1) Attribute preselects grammatical metaphor of modality Or (2) Process preselects Mental: cognition as grammatical metaphor

The third and final primary system deriving from [prefaced] is [stop] versus [go]. It captures the possibility of prefacing elements occurring recursively. Messages which include only one prefacing element select [stop]. This has been the

¹ The realization of this option is presented simultaneously with those for the two dependent systems which follow.

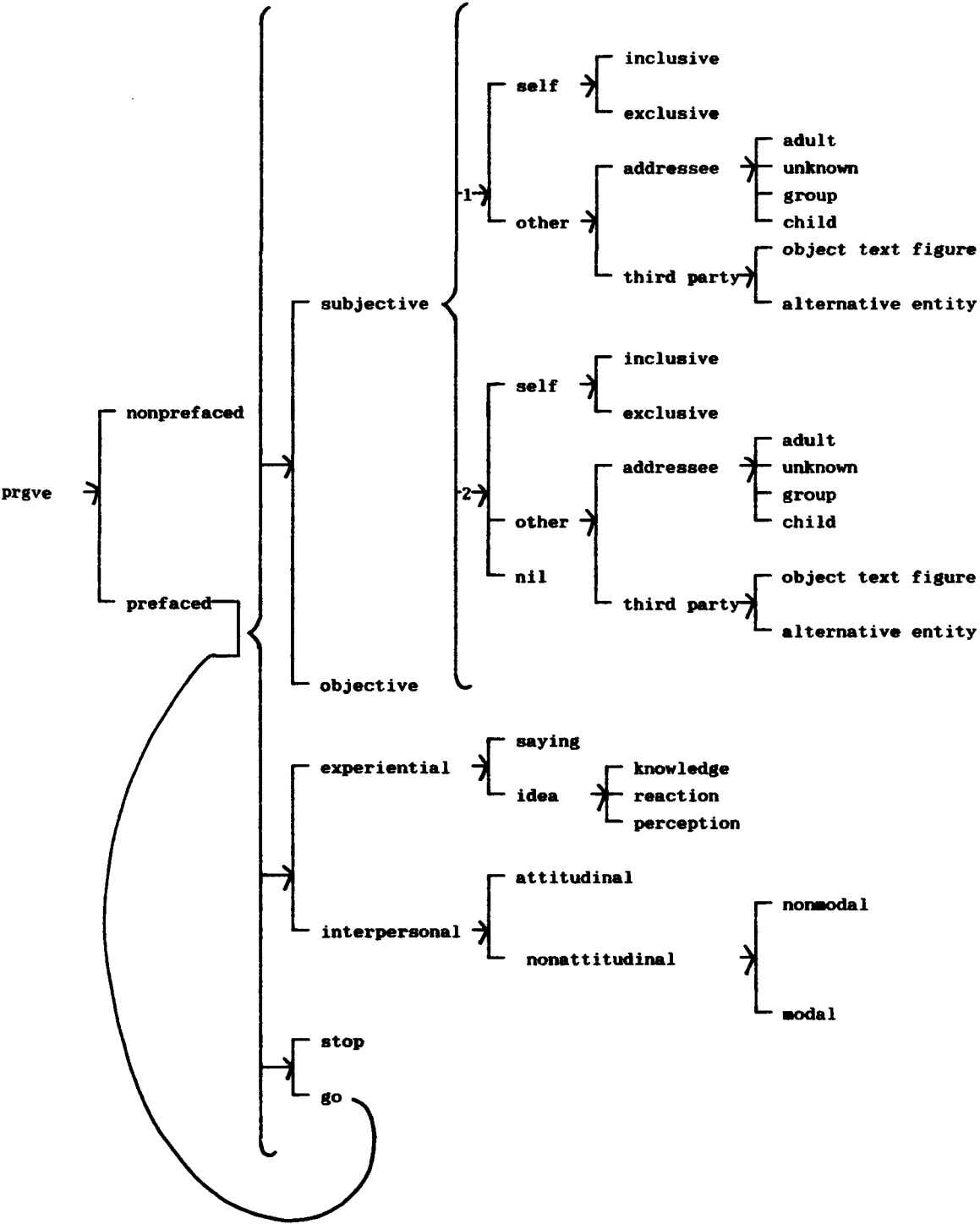
feature selected for all examples discussed in Section 5.2 so far. In contrast, Message 04 in Example 5.9 selects [go], since there are two prefacing elements, realized through two projecting clauses. Message 04 selects both [interpersonal:nonattitudinal:modal], realized by 'do you think' and [interpersonal:nonattitudinal:nonmodal], realized by 'It looks like'.

Example 5.9

Mh: 01 There's a picture there.
Cd: 02 That's Peter Rabbit.
Mh: 03 And look at under the tree there.
 04 Do you think it looks like it's the same tree?

The network fragment representing all dependent systems of [prefacing] discussed here is presented as Figure 5.2.

Figure 5.2 Some choices for messages which
select [prefaced]



5.3 Some choices in textual and logical meanings

The sets of options described in this section involve a simultaneous choice from two systems:

- i [initiate] versus [follow], which describes the discursive 'position' of a message in relation to other interactive text messages;
- ii [supplemented] versus [nonsupplemented], which describes whether an option to expand the meaning of a message through a further message is exercised;

Selections from these systems are made simultaneously with a choice of [prefaced] or [nonprefaced].

A message having the feature [initiate] is either:

- i the first message in interaction in a session which does not itself supplement some other message; or
- ii the first non-supplementing message in a stretch of interactive text which follows the reading of a passage of object text.

A message having the feature [follow] is subsequent to a message selecting [initiate] in the same stretch of interaction. In Example 5.10 Messages 01 and 05 select [initiate] and Messages 02, 03 and 04 select [follow].

Example 5.10

Mh: Mr Hove took out a big handkerchief and pretended to cry. "I know when I'm beaten," he moaned.

01 He's not really unhappy

02 because he knows that Titus Darkmallow is going to spoil it

03 so he thinks that they're not going to fly at all.

Peter threw out the sandbags which weighted down the balloon.

04 When you do that

05 it should be able to float up into the air.

Mr Jones grandly cut the anchor rope.

A [supplemented] message is, in some sense, modified by the one to which it is logically related. Thus the meaning of 05 in Example 5.10 is modified by 04, which is itself a [nonsupplemented] message.

Realization statements for these options are:

initiate	First primary clause in a stretch of interactive text
follow	Sequent clause in a stretch of interactive text
supplemented	Clause is expanded explicitly by a secondary clause, or implicitly by an adjacent clause ²
nonsupplemented	Clause outclassifies expansion relation

As a brief summary of the discussion to this point it may be useful to give a simultaneous description, using these two systems, together with the features [prefaced] versus [nonprefaced] for each interactive text message in Example 5.10. The description is:

- 01 He's not really unhappy
[initiate;supplemented;nonprefaced]
- 02 because he knows that Titus Darkmallow is going to
spoil it
[follow;supplemented;prefaced]
- 03 so he thinks that they're not going to fly at all.
[follow;nonsupplemented;prefaced]
- 04 When you do that
[follow;nonsupplemented;nonprefaced]
- 05 it should be able to float up into the air.
[initiate;supplemented;nonprefaced]

The description of messages with the feature [follow] is developed through several dependent systems. An overview of these will be presented and inter-relationships between them modelled in Figure 5.3 before each is further defined and exemplified.

The primary sub-system is [maintain topic] versus [discontinue topic]. Messages which select [discontinue topic] are further described on a system which contrasts [reverting] with

² Implicit supplementation is further discussed with the option [supplementing] later in this section.

[diverting]. The distinction captures the 'episodic' recurrence of topics, as contrasted with the introduction of new topics, during a stretch of interaction.

Messages which select [maintain topic] are further described through more delicate sub-systems. The feature is the entry point to two simultaneous systems:

- i [continue] versus [respond], which describes whether a speaker continues in the same turn or the turn passes to another speaker;
- ii a system which indicates whether a speaker, in either continuing to speak or in responding, repeats a previous message, that is [+repetition] versus [-repetition].

These features are expanded through further sub-systems, with the exception for obvious reasons of [-repetition], and these will be discussed after an elaboration of the descriptions above.

The feature [continue] is the entry point to a system indicating an aspect of logical relations between messages in the speaker's turn, [supplementing] versus [nonsupplementing]. This system captures the fact that in continuing a turn a speaker may construe a message which logically expands a previous one, or not. The feature [supplementing] is the entry point for further systems which describe the nature of this logical expansion, and which are discussed in Section 5.4.

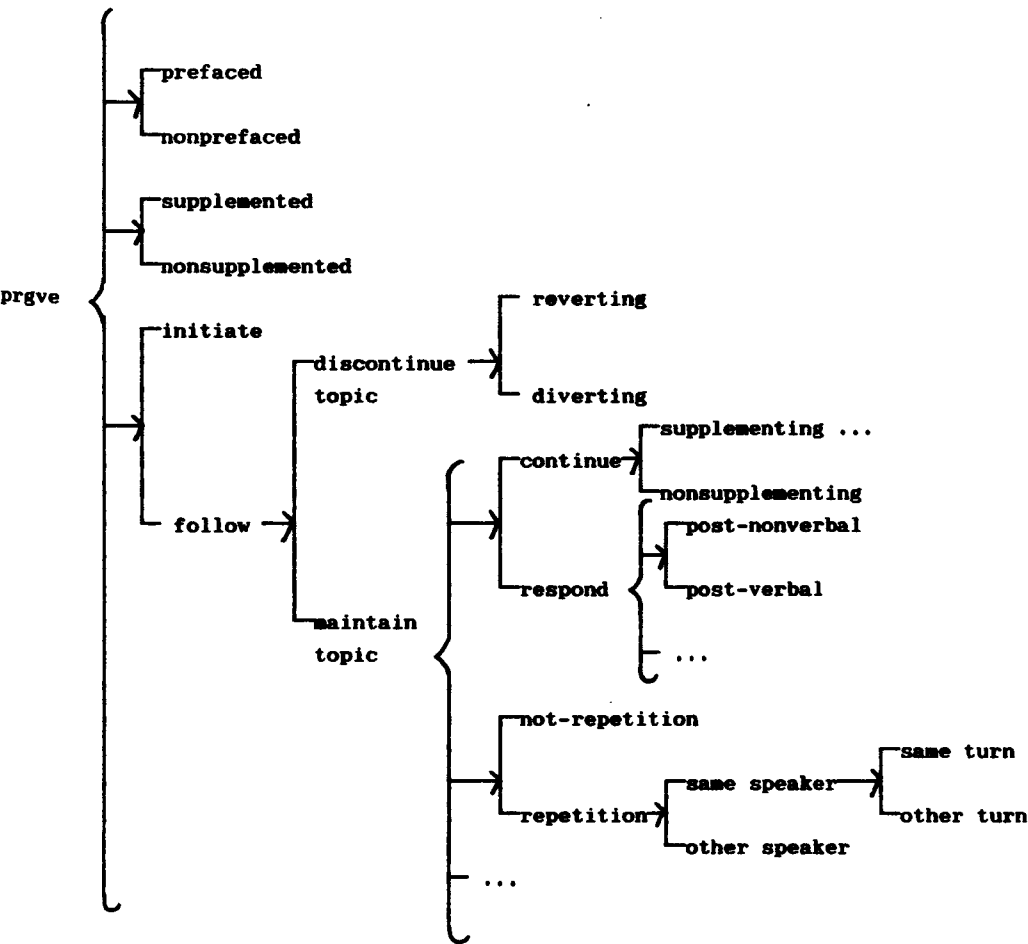
From [respond] a dependent system describes whether a speaker is responding to preceding verbal discourse, or to silence or some form of nonverbal semiosis such as a gesture in an environment where verbal discourse would usually be expected. The form of nonverbal response is typically silence which follows a question where the interrogator has paused,

indicating an expectation of a response. The system is [post-verbal] versus [post-nonverbal].

Finally, with respect to [repetition] there is a further system describing whether the message repetition is by [same speaker] or [other speaker], and if [same speaker] then either [same turn] or [other turn].

Figure 5.3 presents a model of these relationships.

Figure 5.3: Some choices available for textual and logical meanings



The discussion of each of these systems is now expanded and the selection of options exemplified.

What constitutes a 'topic' and therefore its maintenance in discourse is, clearly, a matter of considerable interest. From the perspective of SFL the notion of topic is closely

related to simultaneous selections in the experiential and textual metafunctions at the lexico-grammatical stratum. Instance, for example, the description of Topical Theme as the first clausal element which selects a function in the experiential system (Halliday, 1985a).

However, a sense of a topic being maintained over a stretch of discourse cannot be described directly through message by message analysis of selections of the 'same' elements in the experiential metafunction. This can be seen in the following constructed example, where each experiential constituent is nonidentical.

Speaker 1: Are you going out?
Speaker 2: Michaela is coming over.
Speaker 1: So I shouldn't do the shopping now
either.

Topic maintenance can be ascribed in the presence of cohesive harmony (Hasan, 1984a). Using problematic examples from the current data set it is possible to see how the principle of cohesive harmony explicates the description of topic maintenance and change. In Example 5.11 Simon and his mother discuss *Where the wild things are*. The mother asks him if he would like to have a room comparable to that of the central character, Max.

Example 5.11

Mh: and grew and grew until his ceiling hung with vines and the walls became the world around him.
01 Look at his room now.
02 What can you see in his room?
Cd: 03 Nothing.
Mh: 04 You can't see anything?
05 What's this?
Cd: 06 Tree.
07 Dey ... trees.
Mh: 08 Yeah.
100 His room's
09 Look.
10 There's lots of trees and vines.
11 and they make his wall now.
12 That's his room.
13 How would you like a room like that?
Cd: 14 I don't even want a room.
Mh: 15 Pardon?

Cd: 16 I don't want a room like that.
 Mh: 17 You don't want a room like that.
 18 Okay.

One analytic problem here is to decide whether Message 13 maintains the topic or diverts to a new topic. There are two chains of relations between clauses which are particularly relevant to the decision. One identity chain links items referring to the interacting child (Simon). In Message 13 the relevant item is 'you'. In the preceding messages items in this chain occur, taking into account ellipsed and assumed elements in Messages 01, 02, 03, 04 and 09. In subsequent messages the identity chain continues through items in 14, 16 and 17. At the same time a similarity chain refers to the character's (Max) room. Relevant items are to be found in 01, 02, 05, 06, 07, 08, 10, 11, 12, 13, 14, 16 and 17.

These two chains interact in the same, or at least a very similar, way. In 01, 'his room' is Range in a Behavioural Process clause which is very close to the Mental type (Halliday, 1985a:128-9), and 'you' is the inferred Behaver. In Message 02, 'what' is the Phenomenon in a Mental Process clause, with 'you' as Senser. In Message 13 itself, and subsequently in 14, 16 and 17 the Process is again Mental, with 'you' or co-referential 'I' as Senser and 'a room like that' as Phenomenon. On this basis Message 13 and the subsequent messages are analysed as selecting the feature [maintain topic]. The concept of cohesive harmony was used in this way to assess topic maintenance whenever similar uncertainties of this kind arose.

The concept was particularly useful in determining topic maintenance and change in the analysis of classroom discourse, where it is common for children to make some general association with a topic and for this move to be accepted by the teacher and sustained in subsequent discussion, irrespective of whether or not it might appear to be the 'same' topic to an adult speaker of English.

Example 5.12 illustrates the analytic problem. The teacher is reading a text called *Scruffy the tugboat*. Part of the narrative sequence represents the boat sailing under some bridges. The specific item 'bridges' forms the basis for a series of associations in the subsequent discussion.

Example 5.12

Tr: "This is a fine river but it's very busy and very big for me. He was proud when he sailed under the bridges. My river is so wide and so deep that people must build bridges to cross it. The river moved through big towns now instead of villages.

01 Who knows what the bridge in Sydney is called, the big bridge that goes across the harbour?

02 Umm ... Belinda?

Cd: 03 The Harbour Bridge.

Tr: 04 Good girl.

05 It goes ... it's called the Sydney Harbour Bridge.

06 This here bridge is very different.

Cd: 07 Mrs J?

Tr: 08 Hold on.

Cd: 09 Some time you will see the Lego Centre.

Tr: 10 That's right.

11 Exactly.

12 That's right, yes.

Cd: 13 And the Sydney Tower.

Cd: 14 And sometimes I will see the water from Luna Park.

Tr: 15 Yes, that's right.

Attention is drawn to Message 09, where the analytic problem is to determine whether a new topic is introduced. It can be seen from the ensuing interaction that the teacher is prepared to accept the child's contribution without comment about its relevance, and in fact the children continue to discuss what can be seen 'in Sydney' for some time. Apparently the child's association is with Sydney in the title of the bridge, and the activities in which one can engage in the city developed from his perspective of living in the outer western suburbs.

The principles of cohesive harmony can be used to address this problem. The items in Messages 01 - 08 can be seen not to interact in the same way as those in Messages 09 - 15. Even if there is thought to be a co-hyponymic relation between 'Sydney Harbour Bridge' and 'the Lego Centre', relations between the other items and these two in the respective clauses is rather different. Message 09 would therefore be

analysed as [discontinue topic:diverting] rather than [maintain topic].

The feature [discontinue topic] is in systemic contrast with [maintain topic] and is the entry point to the more delicate options [diverting] and [reverting]. The focus of descriptive interest here is the frequency with which topic change occurs during interaction after a period of object text reading, and the extent to which a topic change results in the selection of a new topic. Selection of these features is dependent on prior selection of the feature [follow].

Messages with the feature [diverting] represent the first occasion during a joint book-reading session on which a topic is introduced during a stretch of interactive text. Such a diversion may occur on more than one occasion, even in the one stretch of interactive discourse. Messages with the feature [reverting] represent occasions when a topic which occurred earlier in interactive text in the specific transcript is re-introduced. Example 5.13 illustrates instances of both these features.

Example 5.13

Tr: "Ouch!" he cried as two logs bumped together.
...
01 In some countries << >> they cut those trees down.
02 <<where *there's lots and lots of timber and lots and lots of ...
Cd: 03 *Miss, why'd you turn the tape on?
Tr: lots and lots of trees ...
Cd: 04 And logs.
Tr: and logs>>
05 and because they're so heavy and so big
06 instead of putting them on a truck
100 and car and
07 George H, please sit down
08 and be still.
09 Instead of getting all these big trucks to carry all these logs down
10 it's much, much easier to put them into a river
11 and for them to float downstream on the river.
100 Where are these
12 What are these logs used for do you think?
13 George H, I have said it again.
14 Sit
15 and don't move.

- 16 It's very distracting for me to have you moving around disturbing the other children.
17 Chris?
18 What are these logs used for, Renee?

Message 07 selects [diverting] since it is clearly not in a cohesive relation with preceding messages. Message 08 selects [maintain topic], but then in Message 09 the teacher returns to the discussion which was interrupted by George H's activity so this message is analysed as [reverting]. In Message 13 the teacher returns to the issue of George's behaviour so this message is analysed as [reverting]. Message 18 selects [reverting] as the teacher returns to the discussion of the use of the logs.

The fact that these options are features of messages is illustrated by messages 03 and 04. Message 03 selects the feature [diverting] but the topic is not taken up by the following speakers who maintain discussion of the topic which was initiated in 01. Message 04 therefore selects [maintain topic] rather than [reverting].

The logical and dialogic status of a message in a turn of speaking is further described through the system [continue] versus [respond]. For messages which select the features [follow:maintain topic], those which occur first in a turn select [respond] and those which are subsequent in a turn select [continue].

A turn of speaking can be realized verbally or by silence following a demand for information, where the silence is sufficient to provide for the possibility of a response. It may also be realized by a nonverbal form of semiosis such as hand-raising. This approach to analysing turns is necessary because of the effect of silence or nonverbal semiosis on the semantic features selected by a following message. As Goffman commented:

The first pair part establishes a 'conditional relevance' upon anything that occurs in the slot that follows; whatever comes to be said there will be inspected to see how it might serve as an answer, and if nothing is said, then the resulting silence will be taken as notable - a rejoinder in its own right, a silence to be heard (Goffman, 1981:6).

To capture these effects a sub-system dependent on [response], an opposition between [post-verbal] and [post-nonverbal] is described. Its use is illustrated in Example 5.14.

Example 5.14

Mh: 01 What's this one?
 02 What is it?
Cd: 03 That.
Mh: 04 Possum one.

Message 02 selects [post-nonverbal] and Messages 03 and 04 [post-verbal].

Messages which select [continue] may be either [supplementing], so that they logically expand other messages, or [nonsupplementing], so that they do not effect an expansion and are realized by independent clauses. Messages which select [supplementing] are realized by a dependent clause or by an independent clause which is an implicit expansion.

The question of implicit logical expansion is a notoriously difficult one in text analysis, as Halliday (1985a:308-9) points out. However, as Martin (1992:183) comments

it is hard to see how [some] texts can be interpreted unless implicitly realized connections are made.

and he proceeds to make the following suggestion:

as a test for the presence of an implicit connection it can be required that the connection could have been made explicit (ibid., 184).

This can be done provided, of course, that logical relations between processes are not affected. Implicit additive relations are excluded on the ground that it is possible to insert and between an almost unlimited number of independent clauses.

Martin's approach is adopted here for clauses realizing adjacent messages. The distinction between explicit and implicit relations between clauses is preserved through a system in the fragment of the network which is dependent on [supplementing], as will be seen in Section 5.4.

In Example 5.15, Messages 02, 03, 04 and 05 have the feature [supplementing], and message 06 [nonsupplementing]. Messages 02 and 03 are regarded as implicit expansions. For Message 02 the implicit conjunction is but and for Message 03, because.

Example 5.15

Tr: 01 Yes some boats are made out of wood.
02 Not very many these days.
03 Most boats are made out of metal
04 but some boats are made out of wood
05 or were.
06 What was the story we read the other day about the boat that
was made out of wood?

The final aspect to be presented in this section concerns message repetition. The degree of analytic delicacy is again important since it is possible for there to be a variable proportion of message repetition (Hasan, 1985b:3-14), and variable proportions of intervening discourse between messages which are to some degree repeated.

Messages which select [repetition] are realized through a direct repetition of the wording of either:

- . a previous message in the speaker's turn, or
- . the immediately prior turn of the speaker, or
- . the immediately preceding speaker's turn,

All other messages with the feature [follow:maintain topic] select [-repetition].

In Example 5.16 Message 05 selects [+repetition] and Messages 02, 03, 04 [-repetition].

Example 5.16

Tr: 01 This story is called *Scruffy The Tugboat*.
02 What is this called?
03 What is the name of a book called, Rebecca?
Cd: 04 Title.
Tr: 05 The title.

A further analytic problem concerns yes/no answers to polar interrogatives. Since polar interrogatives in a sense *require* the specification of polarity with respect to the proposition, the approach has been to regard responses to such questions in which the speaker simply says either 'yes' or 'no' as [-repetition]. In Example 5.17, Message 02, and in 5.18, Message 03 are analysed as [-repetition].

Example 5.17

Cd: 01 She's the big girl, isn't she?
Mh: 02 Yes.

Example 5.18

Cd: 01 Oh I can't see them there.
02 Can you?
Cd: 03 No.

Three other types of messages which repeat the wording of preceding messages, but with some modification, require consideration for the analysis of this data. In one type a mood tag is added to the repeated wording, as in Example 5.19. A closely related type is the addition of a projecting clause to the repeated wording, as in Example 5.20. Both of these types are described as [+repetition]. In the third type the wording is repeated but contrastively on Tone 2 (Halliday 1985b), thus selecting a feature of a system dependent on [demand;information]. This type is instanced in Example 5.21.

Example 5.19

Tr: 01 When do you see owls?
02 Renee?
Cd: 03 In the night time.
Tr: 04 In the night time, don't you?

Message 04, in which a mood tag is added to the repeated wording of 03, is analysed as selecting the feature [+repetition].

Example 5.20

Cd: 01 He wants to be bigger.
Tr: 02 He wants to be bigger, do you think?

Here Message 02, in which a projecting clause is added to the repeated wording of 01 has the feature [+repetition].

(Message 02 would be simultaneously analysed as [prefaced], and further described using the network presented in Section 5.2.)

Example 5.21

Cd: 01 I saw eleven rainbows.
Tr: 02 Eleven rainbows?
 03 *Goodness me.
Cd: 04 *Twelve, I mean.
Tr: 05 Twelve?

Messages 02 and 05 both have the feature [+repetition], though they are contrastively spoken on Tone 2 in the speaker's repetition of the wording of the preceding message.

Two further sub-systems of [+repetition] provide a description of more delicate features. They simply indicate which speaker is responsible for the production of messages which select [+repetition], and in which turn. The first contrasts [same speaker] with [other speaker] and, extending from [same speaker], there is a further contrast between [same turn] and [other turn] for that speaker. The description of Messages 02 and 05 in Example 5.21 would thus be extended to [+repetition:other speaker].

In summary, this region of the network provides a means of analysing topic maintenance and change, together with some salient aspects of turn-taking in joint book-reading contexts.

5.4 Supplementing messages

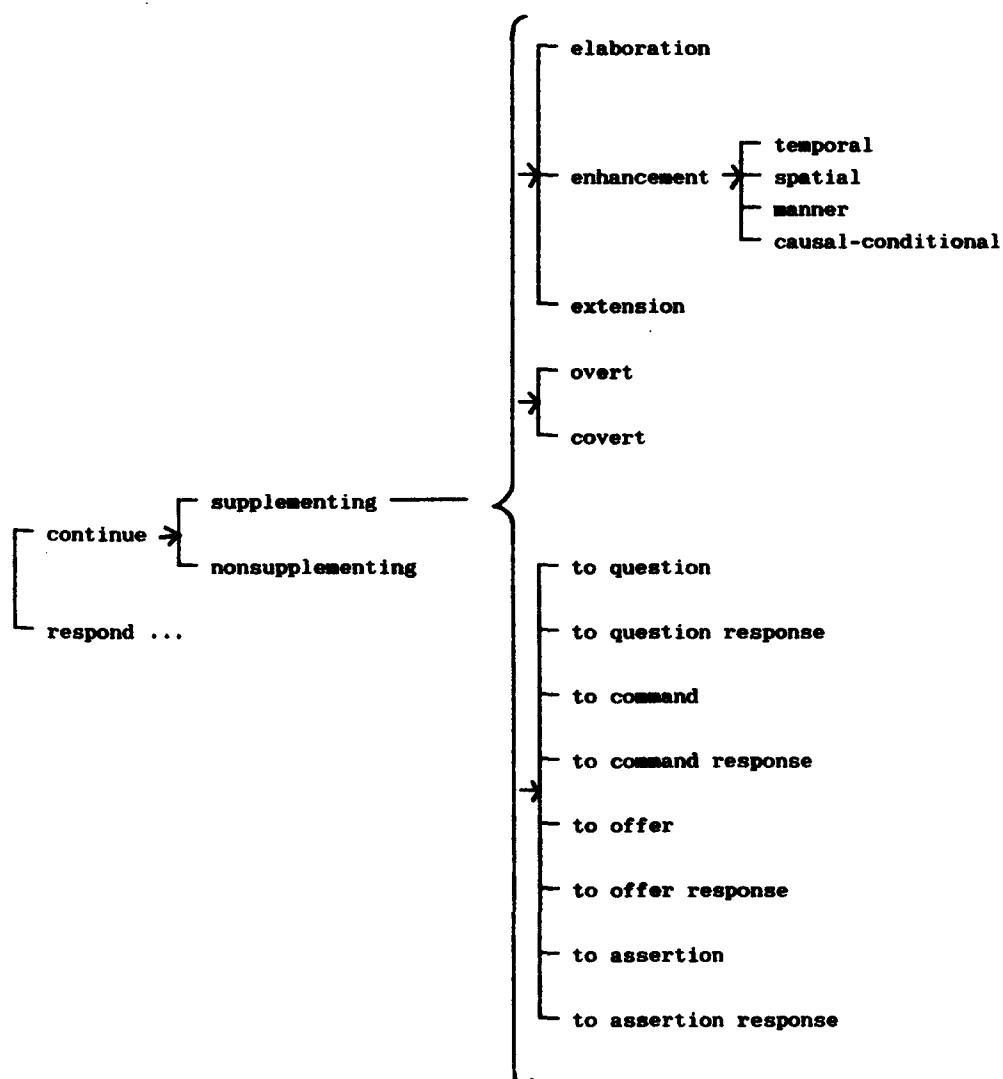
In Section 5.3 the system [supplementing] versus [nonsupplementing] was introduced and briefly discussed. In this section the account of the feature [supplementing] is

expanded through a description of three simultaneous, dependent systems:

- i logico-semantic relations between messages,
- ii a system which describes whether overt or covert relations are selected,
- iii the speech function of the basic message which is supplemented by the message under focus.

The relations between these aspects is given in Figure 5.4.

Figure 5.4 **Some further options for messages**
which select [supplementing]



5.4.1 Logico-semantic relations between messages

The description of logico-semantic relations follows Halliday (1985a), retaining the terms introduced by him since, as Cloran (1993:181) points out, they are inherently semantic. For [elaboration] and [extension] no further distinctions are made, but for [enhancement] a further set of options is defined because the nature of conditional relations, especially of cause, space, time and manner may reasonably be predicted to play an important role in the interpretation of narrative texts. Realization of these options is as given by Halliday (1985a:202-219).

5.4.2 Overt and covert relations between messages

In Section 5.3 attention was drawn to a dilemma: on the one hand, to be able to interpret a text one needs to take account of implicit logical relations between messages to be able , and on the other, there is always some danger of over-interpretation, since in the absence of a conjunctive the logical relation remains relatively indeterminate. The resolution of this dilemma was to include messages which are implicitly related through conjunction as [supplementing], following the proposals of Martin (1992).

However, it is important not to obscure the selection of implicit or explicit conjunction. As Halliday comments:

... the presence or absence of explicit conjunction is one of the principal variables in English discourse, both as between genres and as between texts in the same genre; this variation is obscured if we assume conjunction where it is not expressed. It is important therefore to note those instances where conjunction is being recognized that is implicit; and to characterize the text also without it, to see how much we still feel is being left unaccounted for (Halliday, 1985a:309).

The system [overt] versus [covert] describes this selection for the reasons to which Halliday draws attention. It is shown as simultaneous with the other two aspects, though if a more delicate description of [extension] were to be drawn it would be necessary to exclude the possibility of the selection

of [extension:addition:covert] for the reasons given in Section 5.3 above. The realization statements are:

overt	Preselect conjunction
covert	Outclassify conjunction

5.4.3 Supplementation to speech functions

The third system deriving from [supplementing] is a means for determining the speech function of the messages which supplementing messages expand. Supplementing messages, that is, may be supplementing to a message which functions as a question, a question response, a command, a command response, an offer, an offer response, an assertion or an assertion response.

There is the further possibility that supplementing messages may themselves independently select a speech function, as in an utterance such as 'You said you would go or do you still feel unwell?'. Here the second message 'or do you still feel unwell' is supplementing to the first but selects a different speech function from the first.

Two stretches of discourse will be analysed to show the expanded account of supplementing messages which this network produces. The first, Example 5.22, previously formed Example 5.15, except that here some preceding messages are included to facilitate the determination of speech roles.

Example 5.22

Tr:	01	What else is ... are these logs used for?
	02	Christopher?
Cd:	03	You can make them for boats.
Tr:	04	Yes some boats are made out of wood.
	05	Not very many these days.
	06	Most boats are made out of metal
	07	but some boats are made out of wood
	08	or were.
	09	What was the story we read the other day about the boat that was made out of wood?

In the earlier discussion it was indicated that Message 09 selects [continue:nonsupplementing]. In the teacher's second

utterance Message 04 is supplemented by Messages 05 to 08.
The selection expressions for each of these messages is as follows:

```
05 [supplementing:extension;covert;assertion]
06 [supplementing:enhancement:causal-
    conditional;covert;assertion]
07 [supplementing:extension;overt;assertion]
08 [supplementing:extension;overt;assertion]
```

The second stretch, Example 5.23, is included to show a more variable set of selections for the systems which derive from [supplementing].

Example 5.23

```
Mh: 01 Well they've got a mouth in the middle of the open hole in the middle
    02 and the tentacles help to wave the food into the mouth like that.
    03 They do that.
Cd: 04 Mm.
Mh: 05 and << >> the tentacles close up
    07 <<if a fish ... a tiny little fish comes along>>
Cd: 06 Mm.
Mh: 08 and grab it
    09 and then push it down into the mouth
    10 so that they think that his fingers are little fish
    11 and they grabbed it
    12 and it went down in their gut down there
    13 because he's much too strong for the anemone.
    14 They're used to catching teeny-weeny fish
    15 so he's just playing with it.
    16 The anemone thinks it's a piece of food
    17 because they can't see.
    18 They just do it by feel.
    19 They don't have eyes. (LONG PAUSE)
```

The analysis of the messages contributed by the mother in this example for the systems dependent on [supplementing] is:

```
02 [supplementing:extension;overt;question response]
03 [supplementing:elaboration;covert;question response]
05 [supplementing:extension;overt;question response]
07 [supplementing:enhancement;causal-conditional;overt;
    question response]
08 [supplementing:extension;overt;question response]
09 [supplementing:enhancement:temporal;overt;question
    response]
10 [supplementing:enhancement:causal-conditional;overt;
    question response]
11 [supplementing:extension;overt;question response]
12 [supplementing:extension;overt;question response]
```

- 13 [supplementing:enhancement:causal-conditional;overt;
question response]
- 14 [nonsupplementing]
- 15 [supplementing:enhancement:causal-conditional;overt;
assertion]
- 16 [nonsupplementing]
- 17 [supplementing:enhancement:causal-conditional;overt;
assertion]
- 18 [supplementing:elaboration;covert;assertion]
- 19 [supplementing:elaboration;covert;assertion]

The level of delicacy to which the description of logical meanings has been taken is a primary one, sufficient only to capture basic distinctions of this aspect of relations between messages for this data. Stretches of discourse with the logical complexity of the excerpt forming Example 5.23 are rare in the data. The analysis of it is included to demonstrate that the network fragment is sufficiently robust and delicate to be able to cope with it.

5.5 Some choices in experiential meanings

In the discussion of experiential meanings the difficulty of a choice of appropriate labels for semantic features which is posed by a lexicogrammatical description itself 'pushed in the direction of semantics' (Halliday, 1985a:xix) is particularly acute. The lexicogrammatical terms Halliday has adopted (such as Actor, Behavior, Senser, Agent and Medium) are themselves close to semantic terms. In the network fragment to be presented here there is, as a consequence, some unavoidable overlap between labels for the semantic and lexicogrammatical options.

The primary choice in this metafunction is between the features [doing] and [being]. Expressed informally, it is a distinction between meanings to do with events and actions and those to do with relations between entities.

Realization statements for these features are:

- | | |
|-------|---|
| doing | Process preselects either: |
| | (1) Material or (2) Mental or (3) Verbal or |
| | (4) Behavioural. |

being Process preselects either (1) Relational or
 (2) Existential

On the basis of this primary system a range of dependent systems describe various sub-types of [doing] or [being], and relations between elements which participate in them.

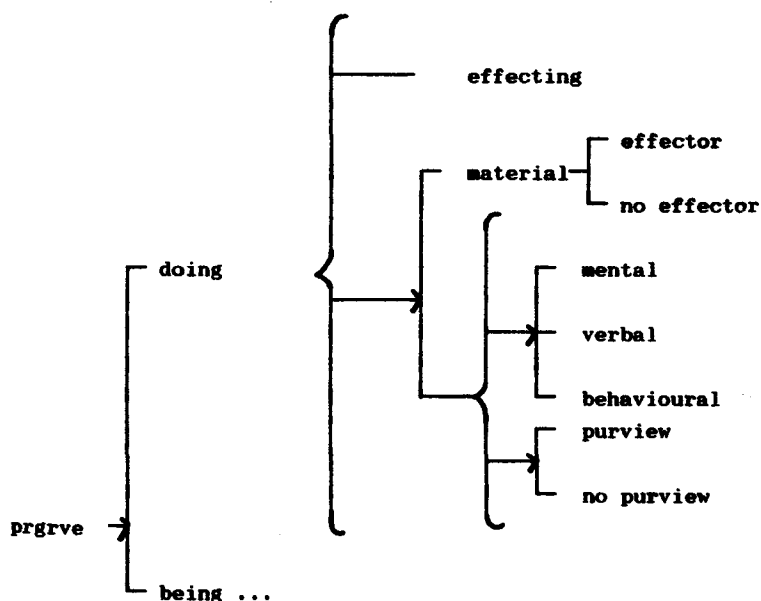
5.5.1 Systems dependent on [doing]

Messages which select [doing] are further described in terms both of the type of event in which experiential elements engage and the type of roles these elements select. The description of semantic resources used for this data set was:

- i an obligatory selection of [effecting],
- ii a system which contrasts [material] with
 a further simultaneous choice from:
 - (a) three alternatives, [mental],
 [verbal] or [behavioural], and
 - (b) a system contrasting [purview] with
 [no purview].
- iii a system dependent on [material],
 [effector] versus [no effector]

For clarity in the following discussion the fragment of the experiential network describing these relations is presented as Figure 5.5. A full form of the aspects of the experiential network discussed in Section 5.5, including systems dependent on [being], will be presented as Figure 5.7.

Figure 5.5 Some choices in an experiential network of systems dependent on the feature [doing]



The underlying orientation for the distinctions to be developed here derives from Hasan's proposal for describing semantic options which realize different degrees of dynamism of actants. The proposal was first made in the context of a discussion of the verbal art of Les Murray's poem 'The widower' (1985b:37) and was designed to capture a contrast in the degree of effectuality of different types of actants, realized by a range of Participants at the lexicogrammatical stratum. For the purposes of this project modifications have been made to the specific description.

The feature [effecting] describes the element of a message which is centrally implicated in the 'bringing into effect' of the activity. It is obligatorily selected by all messages which select [doing] and will therefore be exemplified following a discussion of the simultaneous choices.

Messages are further described on a system which contrasts [material] with a system of simultaneous choices of (1) either [mental] or [verbal] or [behavioural], together with (2) either [purview] or [no purview]. The semantic basis for the primary contrast is a distinction concerning the levels of

abstraction of entities which these types of 'doing' make possible, at least so far as grammatically congruent forms of their realizations are concerned.

The system [purview] versus [no purview] distinguishes between those messages in which a reference is made to a metasymbolic entity which is the domain of the event described through the simultaneously selected option, and those in which no such reference is made.

The feature [effector] describes an element responsible for directly affecting the entity which is the referential signification of the [effecting] element, in systemic contrast with [no effector], selected by messages which do not include such an element.

Example 5.24 provides instances of messages selecting the options [effecting], [effector] and [no effector], together with the selection of [material].

Example 5.24

Cd: 01 Naman was a magician
02 'cause he put a card in this box
03 and when he opened the box
04 the card had gone.

In Messages 02 and 03 Naman does something to two entities, a card and a box. He is the referential signification of the element realizing [effector]. In these messages the card and the box are the referential significations of the elements realizing [effecting], the element through which the action is 'brought into effect'. The selection expression for Messages 02 and 03 is [doing:effecting;material:effector] in both cases. In contrast, Message 04 does not select [effector]. There is an entity through which the action is 'brought into effect', the card, which is the referential signification of the element selecting [effecting]. But there is no entity in the message which is directly responsible for this 'effect'. In a sense the point of Michael's anecdote rests on that fact. For Message 04 the selection expression is [doing:effecting;

material: no effector]. Message 01 selects **[being]** and is further described through dependent systems to be introduced in the next section.

The options **[effecting]** and **[effector]** are closely related to, though not coextensive with, Halliday's lexicogrammatical categories of Medium and Agent (Halliday, 1985a:144-154). The feature **[effecting]** describes an option in messages which select simultaneously from **[material]**, **[mental]**, **[verbal]** or **[behavioural]**. In contrast Medium and Agent also describe features of Relational clauses.

Some further messages which select features dependent on **[doing]** are presented in Examples 5.26 - 5.28.

Example 5.26

Cd: 01 Even when they're not going out
02 they still have to put suntan cream on him?

Message 01 selects **[doing:effecting;material: no effector]**.

Message 02 selects **[doing:effecting;material:effector]**.

Example 5.27

Mh: 01 Oh look at that.
01a Oh look.
02 Doesn't it look great?
03 Imagine a really hot summer's day.
Cd: 04 Mum, when it's summer
05 I'm going to go to the beach with my koala
06 and swim right out to the sea.

Message 01 selects **[doing:effecting;behavioural;purview]**. (An element realizing **[effecting]** or **[effector]** is assumed for messages realized by clauses selecting **[imperative]**.) Message 01a, which is constructed for economy of comparison, selects **[doing:effecting;behavioural;no purview]**. Messages 02 and 04 select **[being]**, and are further described through dependent systems to be introduced below. Message 03 selects **[doing:effecting;mental;purview:]**. Messages 05 and 06 select **[doing:effecting;material: no effector]**.

Example 5.28

Mh: 01 Well keep quiet about it.
02 Don't mention it to Chloe.

Chloe is the child's sister. Message 02 selects [doing:effecting;verbal;purview], where [purview] is instantiated by 'it'. Message 01 selects [being].

The realization statements for the options in these systems are:

effecting	Preselect either (1) Goal, or (2) Actor in middle clauses, or (3) Behavior, or (4) Sayer or (5) Senser
material	Preselect Material Process
mental	Preselect Mental Process
verbal	Preselect Verbal Process
behavioural	Preselect Behavioural Process
effector	Preselect clause effective Preselect Actor
no effector	Preselect clause middle.
purview	Preselect either (1) Phenomenon, or (2) Verbiage, or (3) Range, or (4) Circumstance of matter
no purview	Clause outclassifies (1) Phenomenon, and (2) Verbiage, and (3) Range, and (4) Circumstance of matter

The referential signification of [effecting] and [effector] are given by the field variable, referential domain. In order to be able to describe configurations of meanings it was necessary to develop working categories of referential signification. These are listed, together with notional definitions, in Table 5.1.

Table 5.1 Categorization of referential significations of the options [effecting] or [effector]

1	child	the participating child in a mother-child dyad, or a specific child in the participating school class
2	pupils	the children in the participating class
3	mother	the participating mother
4	teacher	the teacher of the participating class
5	character	a character in an object text, including personified characters
6	other family member	a family relation of the speaker other than the child or mother
7	[non-character object text element]	an element which forms some aspect of the content of an object text other than a character
8	'we'	8.1 institutional people in general 8.2 inclusive Either (1) the mother-child dyad or (2) the teacher and the specific participating class
9	object text title	the title of a text which is the object of discussion, whether being read during the session or not
10	metalinguistic item	an element referring to language itself at any stratum
11	exophoric reference to graphic feature	reference to a feature of the visual semiotic of an object text
12	extended text reference	either anaphoric or cataphoric text reference as defined by Halliday and Hasan (1976:66-70)
13	unknown	'wh' items functioning either as Head or Deictic in a nominal group
14	other	the residual category for any reference item not included above

The referential signification of elements which realize [purview] is further described through a set of categories similar to those describing [effector] and [effecting]. These are given in Table 5.2.

Table 5.2 Categorization of referential signification of [purview]

1	character	a character in an object text, including personified fictional characters
2	non-character object text element	an element which forms some aspect of the content of an object text other than a character
3	metalinguistic item	an element referring to language itself at any level of abstraction
4	exophoric reference to graphic feature	reference to a feature of the visual semiotic of an object text
5	unknown	'wh' items functioning either as Head or Deictic in a nominal group
6	other	the residual option for any reference item not included above

In the analysis of individual messages the category of referential signification was recorded together with the results of each message analysis, making it possible to describe the types of referential signification associated in each case with other meanings of the message.

5.5.2 Systems dependent on [being]

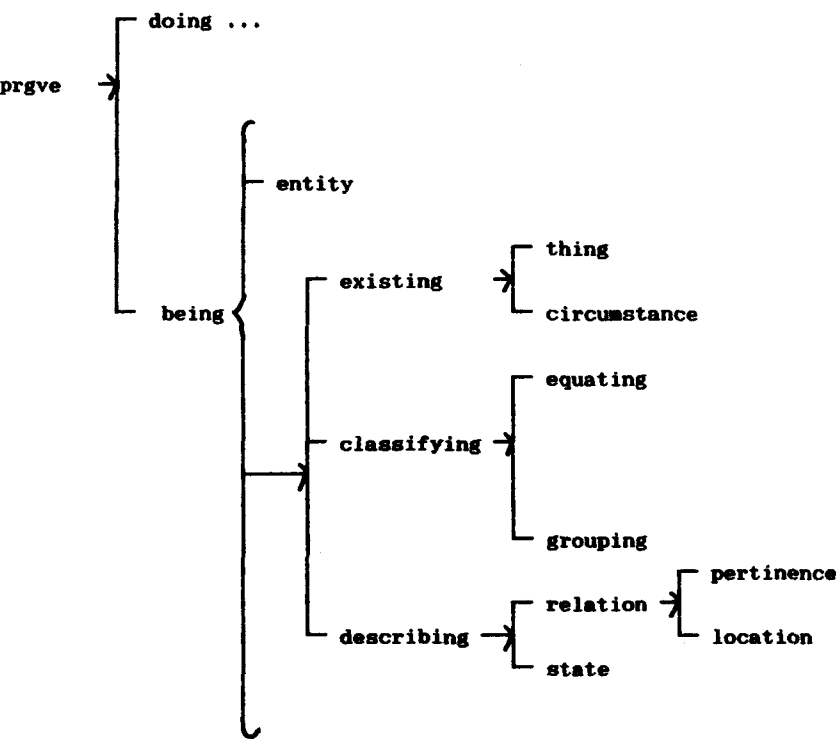
In Section 5.5 a primary distinction between the features [doing] and [being] was introduced, and it was indicated that the latter option preselects either a Relational or Existential Process at the lexicogrammatical stratum. This section describes further options dependent on [being].

The feature [being] is further described through an obligatory element, [entity], selected simultaneously with an option from a three-term system, either [existing] or [classifying] or [describing]. Each of these options is further described through dependent systems.

Again, for clarity in the following discussion the strategy will be to present the network fragment, then to discuss and exemplify each of the features and finally give realization statements for each of them. The network fragment is

presented in Figure 5.6 and the full form of the network for all choices in experiential meanings introduced in Section 5.5 is presented in Figure 5.7.

Figure 5.6 Some choices in systems dependent on the feature [being]



The feature [entity] is the element of the message whose existence is asserted, or which is classified or described by other aspects of the message. All messages which select [being] obligatorily select [entity]. Referential significations of [entity] are categorised as for the feature [effecting], outlined in Table 5.1 above.

Messages selecting [existing] assert the existence of some entity, which may be either a [thing] or a [circumstance]. These possibilities are shown in Examples 5.29 - 5.30.

Example 5.29

Mh: 01 Look.
02 The whole satellite's made out of a garbage bin.
Cd: (LAUGH)
Mh: 03 Like grandfather's garbage bin.
Cd: 04 And there's cup *also.
Mh: 05 *Ma.
Cd: 06 There's black cups.

Messages 04 and 06 select [being:existing:thing].

Example 5.30

Cd: 01 Well when it was the Christmas concert at Kindy
02 Naman was a magician
03 'cause he put a card in this box.

Message 01 selects [being:existing:circumstance].

In messages which are [classifying] or [describing], an [entity] is distinguished either explicitly in terms of class membership or through a more general descriptive feature such as a characteristic or possession. Both of these options act as the entry point to more delicate systems. Those which derive from [classifying] will first be discussed and exemplified.

Messages which are [classifying] are further described in terms of the system [equating] versus [grouping]. Those which select [equating] represent some identity of relation between the element which selects [entity] and some other element of a message. Messages which select [grouping] involve allocation of an element [entity] to a general category or class. The referential signification of these further features is also described through the categories presented in Table 5.1.

Example 5.31

Mh: 01 Is that a tricking book?
02 Have a look.
"Good morning," said Wilbur.
03 Wilbur must be the bionic bunny.
"You're late," said the director.
04 This is like going on television,
05 not like going on radio, is it?
Wilbur only had ten minutes to get his makeup on, go to the wardrobe ...
06 Which means get his costume on

Message 01 selects [being:entity;classifying:grouping].
 Message 03 selects [being:entity;classifying:equating].
 Message 06 selects [being:entity;classifying:equating].

Example 5.32

Cd: 01 What's a tail comb?
 Mh: 02 It's for combing your tail
 03 'cause pigs've got hair on their tails.

Message 02 selects [being:entity;classifying:grouping].

The lexicogrammatical realization of these features is:

entity	Either: (1) Preselect Carrier, or (2) Preselect Token, or (3) Preselect Existent.
existing	Either (1) Preselect Process:existential or (2) Preselect Process:Relational: intensive, and S preselects nonphoric <u>it</u> Preselect Existent
thing	Preselect non-phoric <u>it</u> as Subject
circumstance	Preselect Process:relational
classifying	Preselect Process:relational:identifying
equating	Preselect Value
grouping	Preselect Process:relational:attributive Preselect Attribute Either: (1) nominal group, Thing = Head, nominal group outclassifies Epithet or (2) Attribute = Circumstance of Cause:purpose.

Finally, the feature [describing] is the entry point to a system which simultaneously selects [entity] and a further sub-system, [relation] versus [state]. From [relation] there is a dependent system, [pertinence] versus [location]. For [pertinence] the description involves an indication of what an entity is 'about', or its status as a possession. The selection of [location] indicates the spatial or temporal position of an entity, including position in a graphic image in an object text. Messages which select [state] describe some quality of an entity. Examples 5.33 - 5.35 include messages which select these features.

Example 5.33

Mh: 01 Do you reckon that's a great?
Cd: 02 Yes.
Mh: 03 It's interesting, isn't it?
Cd: 04 Yes.
Mh: 05 It's about how to make television programs, isn't it?

Messages 01, 02, 03 and 04 select [being:entity;describing:state]. Message 05 selects [being:entity;describing:relation:pertinence].

Example 5.34

Mh: 01 An ordinary gerbil is about that big.
02 *I used to have a pet gerbil.
Cd: 100 *Is it
100 Was it
03 How big are they?
04 Are they as big as a giant?
Mh: 05 Ordinary gerbils aren't.
06 The ordinary gerbils are about the size of the hopping mice you see at the zoo.

Messages 01, 03, 04, 05 and 06 select [being:entity;describing:state]. Message 02 selects [being:entity;describing:relation:pertinence].

Example 5.35

Mh: 01 That's a big mountain, isn't it?
Cd: 02 Yes.
Mh: 03 A big sharp mountain ... a big high mountain, the Matterhorn.
04 Did it have snow on it?
Cd: 05 Um no.
06 That wasn't near the owl eag eagle's place.

Messages 01, 02 and 03 select [being:entity;describing:state]. Messages 04 and 05 select [being:entity;describing:relation:pertinence]. Message 06 selects [being:entity;describing:relation:location].

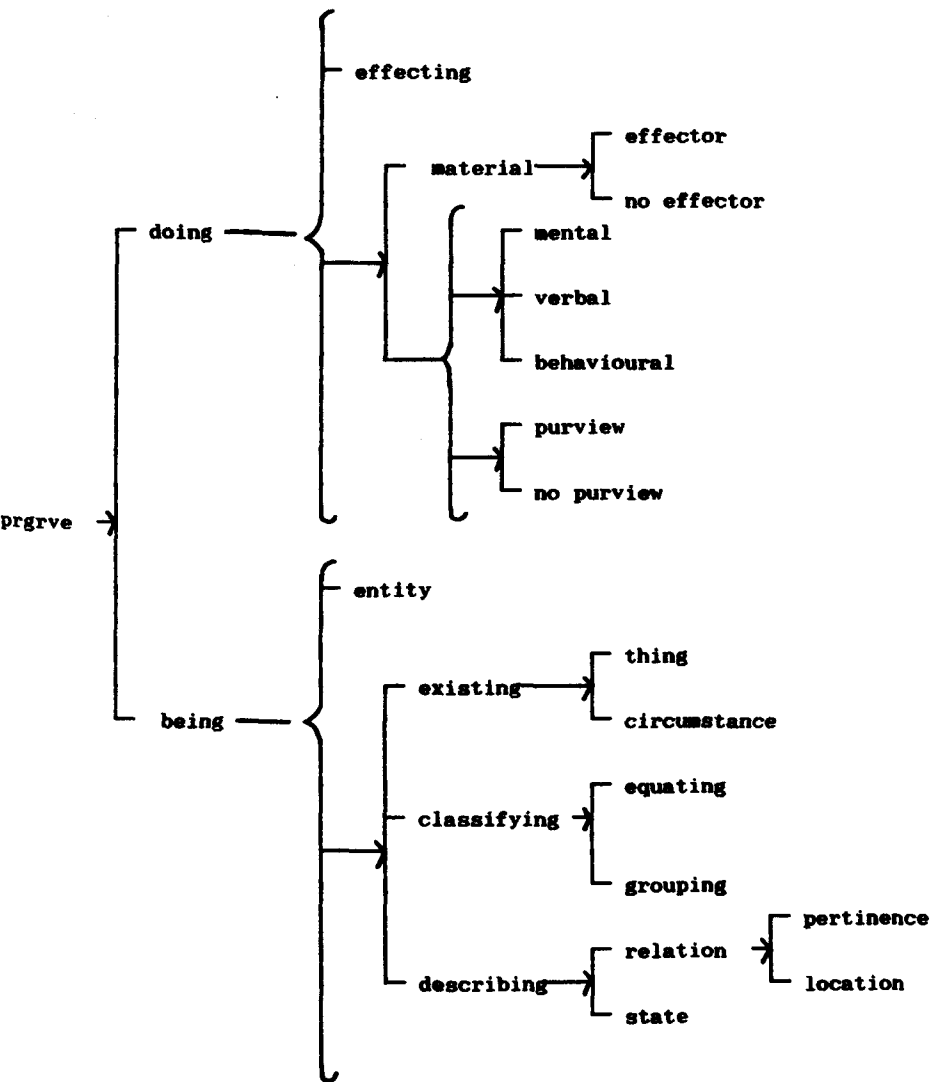
Realization statements for these features are:

describing	Preselect Process:relational:attributive
relation	Preselect Process:relational:attributive
state	Preselect Process:relational:intensive:attributive.
	Attribute preselects nominal group
	Either
	(1) Epithet/Head,
	or
	(2) Epithet ^ Thing

pertinence	Attribute preselects Circumstance:Matter or Possession
location	Attribute preselects Circumstance:location

The complete form of the network modelling choices for experiential choices to the stage of delicacy outlined in the above discussion is presented as Figure 5.7.

Figure 5.7 Some choices in a network of experiential meanings



5.6 Extension of the description of the function of demands for information

Demands for information may function discursively in a variety of ways, depending on whether they are responses to demands for service or to the giving of information. They may also be sequent messages within a speaker's turn which nevertheless

are cohesively tied to information provided by an interlocutor in a preceding turn. The specific focus of interest here is messages which are dependent on [follow:maintain topic] and which simultaneously select [demand;information]. They function to modify, in some way, the contribution to discourse of a previous message to which they are cohesively tied. The system is [confront] or [facilitate] or [develop].

The sense of [confront] is that a respondent reacts 'negatively' to a previous speaker, either by directly challenging the speaker's authority or by returning the speech role. In the following constructed example Message 02 selects [confront].

Example 5.36

Tr: 01 Who was Jack?
Cd: 02 Why did you ask me that?

The realization statement for [confront] is:

confront Preselect clause indicative:interrogative
 Subject preselects 'you' as Thing, where 'you'
 refers to previous speaker
 Preselect Process:verbal

In contrast with confronting a message a speaker may facilitate the development of discourse by seeking to repair uncertainty about meaning, thus responding 'positively' to some impediment in the exchange of meaning in contrast with [confront]. Messages which select [facilitate] are attempts to clarify some relevant aspect of information in a preceding message before further interaction. At the contextual stratum what is involved is a temporary suspension of the social activity while meanings which enable the social activity to continue are clarified. Hasan (1983:3) suggests that this option exemplifies Goffman's notion of a 'side-sequence'. In Example 5.37 Message 03 selects [facilitate].

Example 5.37

Cd: 01 Look at it.
 02 See it standing up?
Mh: 03 What's standing up?

The realization statement is:

facilitate	Preselect indicative:interrogative: non-polar Wh/ item queries phoric reference or referential signification of a constituent of the clause forming the first pair part of the adjacency pair where the message under focus is the second pair part.
------------	---

Speakers may also opt to demand that information previously given by an interlocutor be developed through the giving of further information by the original respondent. A further such demand may be made either through the first message in a turn, or in a sequent message after making an initial response through a message with an alternative speech function. The sequent message may be either [supplementing] or [nonsupplementing]. The feature is similar to, though not coextensive with, Snow's concept of 'clarifying questions', an important aspect of semantic contingency (Snow, 1983:167), which was discussed in Chapter Two, Section 2.4.

Some possibilities for the selection of [develop] are shown in Examples 5.38 - 5.40.

Example 5.38

Cd: 01 They're not straws.
Mh: 02 What are they?
Cd: 03 They're sticks.

Message 02 selects [respond:post-verbal:develop;demand;information:apprize].

Example 5.39

Mh: 01 Where did we get this do you remember?
Cd: 02 At the Exhibition.
Mh: 03 Yeah.
04 Do you know what it was called?

Message 04 selects [continue:nonsupplementing:develop;demand;information:apprize].

Example 5.40

Cd:: 01 The mother didn't joke.
Mh: 02 She didn't joke
 03 but she didn't know she was telling the truth, did she?

Message 03 selects [continue:supplementing:develop;demand;information:confirm].

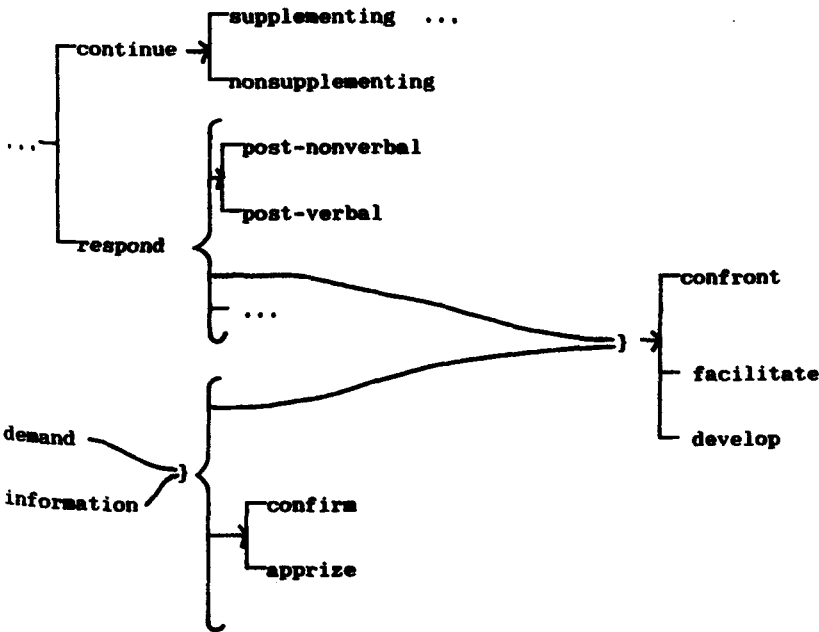
Messages which select [develop] are realized as follows:

develop Either:
 (1) Preselect indicative:declarative:tagged
 or
 (2) Preselect indicative:interrogative

 Preselect componential cohesive relations
 between the two pair parts of the adjacency
 pair.

The network which models these choices is presented as Figure 5.8.

Figure 5.8 Some further choices for demands for information



5.7 Punctuative messages

In the introduction to this chapter, and in Chapter Four, Section 4.7.2.1 a primary distinction was drawn between messages which select [progressive], realized by clauses which select [predicator], and those which select [punctuative]. The preceding discussion has been exclusively concerned with progressive messages. In this final section a brief description of punctuative messages is presented. The network presented here is adapted from Hasan (1983). The adaptation mainly attempts to create more general options which are themselves grouped by dependence on some option which is a hyponym for the more delicate ones. For example, [receiving] 'thank you', [apologising] 'sorry' and [requiring] 'please' are all variants of [civility] in speech.

Punctuative messages are routine elements contributing to the management of linguistic interaction. They do not involve the exchange of propositions or proposals. Their realization is through minor clauses and by paralinguistic elements. The sense of punctuative used here is closely related to, though not co-extensive with, Goffman's notion of a 'conventionalised utterance'. He comments:

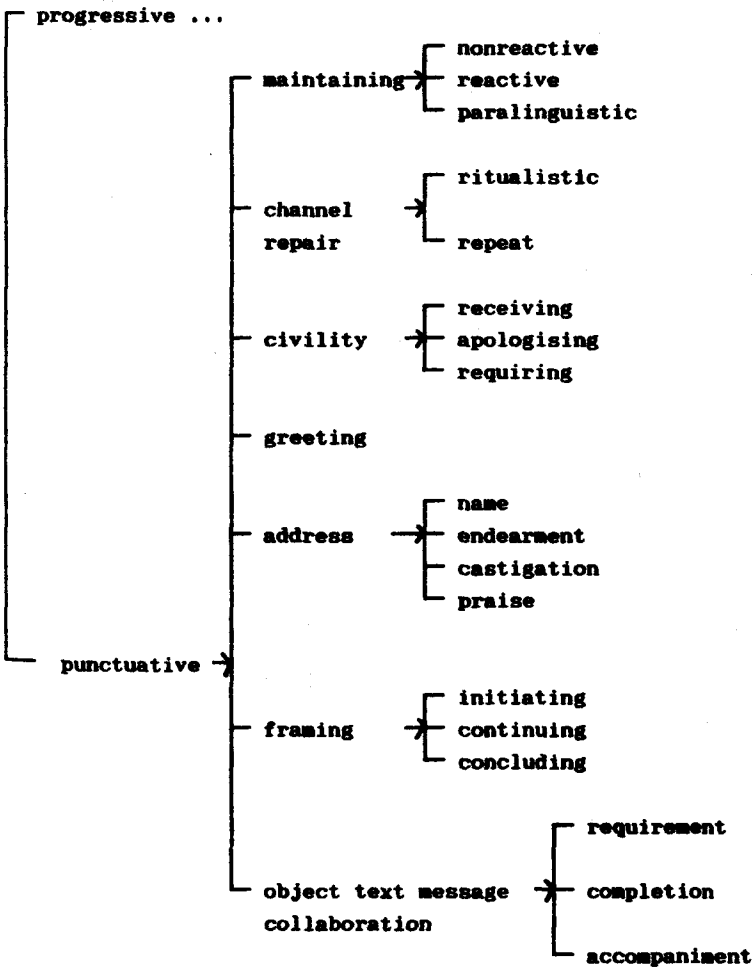
Face to face interaction ... is the location of a special class of quite conventionalised utterances, lexicalisations whose controlling purpose is to give praise, blame, thanks, support, affection, or show gratitude, disapproval, dislike, sympathy, or greet, say farewell, and so forth. Part of the force of these speech acts comes from the feelings they directly index; little of the force derives from the semantic content of the words. We can refer here to interpersonal verbal rituals. These rituals often serve a bracketing function, celebratively marking a perceived change in the physical and social accessibility of two individuals to each other ... (Goffman, 1981:20).

A small set of mutually exclusive dependent systems is described for punctuative messages to give a more delicate account of their roles in discourse. The network of options for these messages is represented in Figure 5.9.

A brief description of the features, together with their dependent systems, will be provided, followed by an example from both mother-child and teacher-class interaction to

illustrate discursive use of the most commonly occurring features.

Figure 5.9 Some choices for punctuative messages



The option [maintaining] describes a set of elements whose function is to maintain the on-goingness of discourse. A dependent system describes whether messages which select [maintain] are either [nonreactive], [reactive] or [paralinguistic]. Nonreactive messages are realized by items such as 'well', 'yeah' and 'right'; reactive messages by items 'gosh', 'ugh' and 'really'; and paralinguistic ones by such elements as 'mm' and 'uh ha'.

The feature [channel repair] is selected by messages which attempt to overcome difficulties with the audibility or

comprehensibility of preceding messages. The feature enables the description of the types of routine difficulty to which Goffman has drawn attention:

It is a standard possibility in talk that an addressed recipient answers the speaker by saying that the sound did not carry or that although words could be heard, no sense could be made of them, and that, in consequence, a rerun is required, and if not that, then perhaps a rephrasing. There are many pat phrases and gestures for conveying this message, and they can be injected concerning any item in an ongoing utterance whenever this fault occurs (ibid., 10).

Messages selecting [channel repair] are further described through the system [ritualistic] or [repeat]. Those which select [ritualistic] are realized through sayings such as 'pardon?' or 'sorry?'. Those which select [repeat] either restate the whole, or some part of, the preceding message in order to check auditory perception of an utterance.

Messages which select [civility] are expressions of politeness, and are further described as [receiving], most commonly realized through 'thanks'; [apologising], usually 'sorry'; and [requiring], often realized through 'please'.

Similarly, the option [greeting] simply describes utterances of conventional initial acknowledgement such as 'hello' and 'morning'.

The option [address] describes messages through which a speaker directly addresses an interlocutor. Again a small system of further options is given: either [name], as commonly in classroom discourse when a pupil is named as the respondent to a question; or [endearment], such as in 'my dear little one'; or [castigation] through such expressions as 'dirty little brat'; or [praise] as in 'good work' or 'well done'.

The final two options in Figure 5.9 are different from the foregoing ones in that the utterances they describe are potentially somewhat longer. The first of these concerns messages which have the function of [framing] discourse, and

is described more delicately in terms of whether such framing is [initiating], [continuing] or [concluding]. Wordings which are commonly used to realize the option [initiating] are expressions realized through minor clauses such as 'look', 'see', 'I know' and 'you know what'. For [continuing] common expressions are 'hang on', 'just a minute' and 'never mind'. For the option [concluding] they are 'that's all', 'there you are' and 'that's enough now'.

The final option is specific to the joint book-reading context and describes collaboration between adult and child or class in the production of an object text message. The primary option is labelled [object text message collaboration] and a small system again described to capture further features. A message which involves such a collaboration may be a [requirement], in which an adult requires a listener to provide the final part of the message by pausing before it is completed or by articulating it on Tone 2. Alternatively it may select [completion] of an object text message, in the sense of providing the part of the message omitted through the selection in a preceding message of [requirement]. Finally, children may accompany an adult's reading of an object text. Such messages select the feature [accompaniment].

Example 5.41 presents a range of messages selecting these features in mother-child interaction, and Example 5.42 a range in teacher-pupil discourse.

Example 5.41

Mh:		"Little pig, little pig, let me come in," cried the wolf.
	01	"Not by the hair of my ?
Cd:	02	chinny chin.
Mh:		chinny chin chin," said the little pig. Then I'll huff and I'll *puff
Cd:	03	*puff
	04	and I puff
	05	and I blow
Mh:		your house in,"
Cd:	06	*in.
Mh:		*roared the wolf. And he did. (YAWNS) He blew the little straw house all to pieces.
Cd:	07	And *then
Mh:	08	*Hang on,
	09	hang on,
	10	I haven't read the other page yet.

In Message 01 the mother requests the child to collaborate in completing the object text message. It selects the feature [object text message collaboration:requirement]. The child's participation in Message 02 selects [object text message collaboration:completion]. Her further contributions in Messages 03, 04, 05 and 06 select [object text message collaboration:accompanying]. Messages 08 and 09 select [framing], as the mother in a sense organises the sequence of activities in joint book-reading. The full selection expression for these messages is [framing:continuing].

Example 5.42

Tr: 01 Well where would you get one [GW wedding ring] from, Bradley,
 02 if there wasn't a shop?
 Cd: 03 Off a person
 04 if they had one.
 Tr: 05 Right.
 06 Can you think of something else you might be able to do?
 07 Kerrie-Anne?
 Cd: 08 Get it out of the buy it out buy one out of the ring shop.
 Tr: 09 The ring shop.
 10 And what happens
 11 if there isn't a ring shop though?
 Cd: (GASPS)
 Tr: 12 Kristin?
 Cd: (GASPS)
 Cd: 13 You couldn't get married.
 Tr: 14 You couldn't get married.
 15 Oh no!

Message 05 selects [maintaining:nonreactive] since the co-textual and phonological information makes it clear that the wording is simply a means of continuing the interaction rather than of making an evaluative judgement about the child's answer. This message is, of course, not realized lexicogrammatically by 'that is right' in an ellipsed form. Messages 07 and 12 select [address:name]. Message 15 selects [maintaining:reactive].

Though it is possible to think of many further extensions in delicacy of the description of punctuative messages, the analysis to this level appeared sufficient to support the major purposes of the project.

5.8 Summary

Because of the complexity and scope of the descriptive technique it has been necessary to present only some fragments of the semantic network used to describe the interactive text. The selection of these segments was guided by requirements for the reporting of results in the following chapters. The full specification of the semantic network is presented in an integrated form in Appendix 6.

From the preceding description it will appear that each message is analysed in considerable detail. However, the descriptive techniques are not presented as a means of exhaustively analysing the interactive data. Instead, the aim has been to develop a sufficiently detailed description to investigate possible regularity in the choice of semantic options by mothers, teachers and children in joint book-reading in relation to their positions in social formations. Many further, more delicate options might be thought of within each of the metafunctional descriptions, and these may well be important for other research purposes. The delicacy of the descriptions adopted here has been restricted to the degree necessary for the purposes of the project. In fact the necessity to describe a dependent system sometimes became clear only after a considerable amount of analysis had been completed. However, because of the form of data-base recording employed for the project it was possible to recover the description of each feature selected by each message quite readily, so that as more delicate features were described the earlier analysis was refined. It can be seen that to some extent the nature of the data itself determined the degree of delicacy to which the analysis was taken.

On the basis of these networks, then, it was possible to develop descriptions of the interactive data. In Chapter Six some of the general findings from the analyses, describing semantic variation in talk in the two social groups and comparing frequency of selection of semantic features in these groups with central tendencies in the classroom discourse, will be presented.