LECTURE TYPE DISCOURSE: ITS MAKE-UP
IN TERMS OF INTER-SENTENCE CONNECTIVES
AND DISCOURSE MARKERS

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SINOPSIS

Kertaskerja ini menyampaikan satu analisa penggunaan bahasa dalam bentuk kuliah-kuliah dari segi kata-kata penghubung antara ayat (inter-sentence connectives) dan isyarat-isyarat discourse (discourse markers). Kajian ini didorong oleh kenyataan bahawa banyak di antara pemakai bahasa Inggeris bukan sebagai bahasa asli peringkat universiti yang mengalami kesusahan dalam memahami kuliah-kuliah. Kesusahan ini bahkan juga dialami oleh mereka yang memiliki sijil-sijil kelayakan yang tinggi. Kertaskerja ini menganalisa sebilangan bahan-bahan kuliah mengenai berbagai-bagai bidang kajian. Bahan-bahan ini dirakam dari keadaan kuliah yang sebenar dan butir-butir yang didapati diatur dan dikemukakan bersama-sama kiraan bilangan terdapatnya tiap-tiap butir tersebut. Selanjutnya kertas ini membincangkan implikasi-implikasi dari kata-kata penghubung ayat dan isyarat-isyarat discourse ini terhadap fahaman lisan dan mencadangkan bahawa unsur-unsur ini boleh jadi merupakan faktor utama bagi memudahkan fahaman lisan.

SYNOPSIS

This paper is an analysis of lecture-type discourse in terms of inter-sentence connectives and discourse markers. This study has been prompted by the fact that many non-native speakers of English at university level in countries where the medium of instruction is English, have listening comprehension difficulties in lecture situations. These difficulties arise even when the student concerned has paper qualifications of a high order. This paper analyzes a sample of lecture material over a wide range of subjects, such material being recorded in actual lecture situations, and the data obtained is classified and presented together with occurance counts of each item. The paper then goes on to discuss the implications of inter-sentence connectives and discourse markers to listening comprehension and to suggest that these items might be the key to facilitating listening comprehension.

INTRODUCTION

It has been found by Sen[1] that a large number of foreign students[2] at British universities and colleges have listening comprehension difficulties in lecture situations. This has been substantiated by James[3] who has further found that many of them have paper qualifications of a high order besides having spent varying periods of time in a native-speaker environment. Based on these findings, this paper disregards features that could pose problems at sentence level. Instead it seeks to present certain salient feature of lecture-type discourse abstracted from a sample of such material, and to discuss the ways in which they might aid or hinder listening comprehension.

LECTURE-TYPE DISCOURSE

Discourse has been described[4] as "a sequence of two or more sentences which cohere together to form as integrated whole". The term, therefore, covers both speech and writing, and these two language activities overlap at times. The following diagram[5] illustrates this overlap.
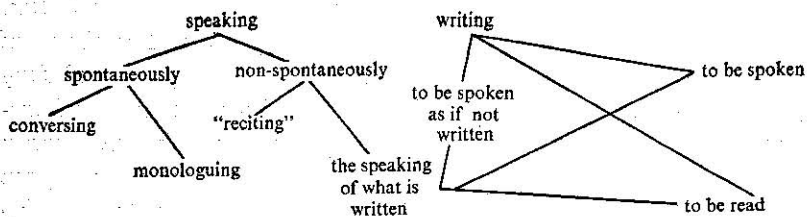
Clearly, when we talk about lecture-type discourse we are interested in non-spontaneous speech, based upon writing. However, even thus defined, the field remains large, and to narrow down the area we wish to talk about we have to resort to what Halliday, McIntosh and Strevens[6] call the Context of Situation. It consists of three variables, Field, Mode and Tenor. Field is defined by the subject matter of the discourse and the aim of the speaker. Mode is defined by the medium of the language actively, writing or speech, and whether the subject matter is prepared or not. Tenor is defined by the social relationships that exist between the interactors.

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1 See A. Sen, *Problems of Overseas Students and Nurses*, London, The National Foundation for Educational Research in England and Wales, 1970, p. 194.
2 "Foreign student" in the context of this paper means a speaker whose mother-tongue is not English.
3 See K. James, 'Overseas Student's Listening Problems: An Inquiry', unpublished paper, Department of Education, University of Manchester, 1970, p. 1.
4 See R. Hasan, *Grammatical Cohesion in Spoken and Written English: Part One*, London, Longmans, 1970, p. 1.
5 This diagram is based on a paper by J. Spencer and M. Gregory, *An Approach to the Study of Style, in Linguistics and Style*, O.U.P., London, 1964, p. 87.
6 See M.A. K. Halliday, A. McIntosh, and P. Strevens, *The Linguistic Sciences and Language Teaching*, London, Longmans, 1964, p. 90ff.

On this basis, then, lecture-type discourse can be pin-pointed. The subject matter varies within strict bounds — that of subjects taught at universities — while the aim is that of imparting knowledge. The medium of language activity is speech which is prepared, and the social relationship between the interactors is that of lecturer to students in face-to-face interaction.

A sample of such discourse was studied.[7] The sample consisted of forty six hours of taped lectures, recorded in actual lecture situations within the precincts of the University of Manchester. The subject matter of the lecturers in the sample consisted of Administrative studies, Biochemistry, Clinical Science, Economics, Psychology and Statistics. The figures presented in this paper are based on this sample.

INTER-SENTENCE CONNECTIVES

An examination of the sample showed a high frequency of occurence of inter-sentence connectives, that is, features that bind the sentences in a discourse together so that it forms an integrated whole. These features are very similar to intra-sentence connectives, and in order to distinguish one from the other a 'sentence' had to be defined clearly. The definition used for the purpose of this paper is that given by Allerton[8] which reads, "A sentence is a minimum structurally independent sequence of morphemes in a given pattern".

A frequency count of inter-sentence connectives in the sample showed that they occured a total of 18,824 times in the 46 lectures, which is an average of 409.2 occurences per lecture. All these items fell into three cate-

TABLE I
ANAPHORIC CONNECTIVES

	Type[9]	Total occurence for 46 lectures	Average per lecture
a)	Demonstratives	6,158	133.9
b)	Pronominals	3,985	86.6
c)	Comparatives	569	12.4
d)	Substitutes	474	10.3
e)	Nominal Ellipsis	263	5.7
f)	Phrasal Ellipis	185	4.0
g)	Verbal Ellipis	61	1.3
h)	Others	15	0.3
	Total for all Anaphora	11,710	254.5

7 See B.S. Wijasuria, "The Occurence of Discourse Markers and Inter-sentence Connectives in University Lectures and Their Place in the Testing and Teaching of Listening Comprehension in English as a Foreign Language", unpublished thesis, Department of Education, University of Manchester, 1971, p.3ff.
8 See D.J. Allerton, 'The Sentence as a Linguistic Unit', *Lingua*, 22, 1969, pp.27–46.
9 The classification of Anaphoric Connectives is based on Hasan, op.cit.

gories according to the way in which they helped bind the discourse together . These were Anaphoric Connectives (items that refer backwards to a previous sentence and depend upon it for their interpretation), Logical Connectives (items that indicate a logical relationship between sentences), and Cataphoric Connectives (items that refer forward to sentences to come in the discourse). Table I, II and III present occurence counts for these items in the sample.

TABLE II

LOGICAL CONNECTIVES

Type[10]	Total occurence for 46 lectures	Average per lecture
a) Additive	2,899	63.0
b) Illative	1,397	30.4
c) Concessive	1,248	27.1
d) Sequential	372	8.1
e) Enumerative	256	5.6
f) Causative	107	2.3
g) Antithetic	84	1.8
h) Inferential	10	0.2
i) Temporal Transitional	3	1.1
j) Others	142	3.1
Total for all Logical Connectives	6,518	141.7

TABLE III

CATAPHORIC CONNECTIVES

Type[11]	Total occurence for 46 lectures	Average per lecture
a) Type One	74	1.6
b) Type Two	61	1.3
c) Type Three	100	2.2
d) Type Four	11	0.2
e) Type Five	20	0.4
f) Type Six	27	0.6
g) Type Seven	58	1.3
h) Type Eight	83	1.8
i) Type Nine	16	0.3
j) Type Ten	9	0.2
k) Type Eleven	137	3.0
Total for all Cataphora	596	13.0

10 The classification of Logical Connectives is based on S. Greenbaum, *Studies in English Adverbial Usage*, London, Longmans, 1969.
11 The classification of Cataphoric Connectives is based on Hassan: *op.cit.*

DISCOURSE MARKERS

Discourse Markers also had a high frequency of occurence in the sample. These are items which indicate the nature of the discourse to come. For example, they indicate whether what is coming is important or not, or whether it is a gloss, a reminder, and so on. These items occured a total of 2,376 times in the sample, which works out to an average of 51.7 times per lecture. Table IV below gives a breakdown of the various types and their frequency of occurrence.

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TABLE IV

DISCOURSE MARKERS

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Type[12]	Total occurence for 46 lectures	Average per lecture
a) Transition	1,031	22.4
b) Explanation	333	7.2
c) Repetitions/Reminders	227	4.9
d) Examples	220	4.8
e) Replacements	203	4.4
f) Summation	168	3.7
g) Importance	78	1.7
h) Corrections	62	1.3
i) Unimportance	54	1.2
Total for all Discourse Markers	2,367	51.7

Based on the figures given above it can be said that an average lecture is held together by 254.5 Anaphoric Connectives, 141.7 Logical connectives, 13.0 Cataphoric Connectives, and 51.7 Discourse Markers; a grand total of 460.9 connectives items per lecture.

THE IMPLICATIONS OF INTER-SENTENCE CONNECTIVES AND DISCOURSE MARKERS TO LISTENING COMPREHENSION:

Having said this, we have to go on to ask, "What are the implications of these features to the listener in relation to the specialised skills of listening comprehension and note-taking? How can they aid or hinder him?" This can best be answered by considering their function, which is twofold. On the one hand they help to bind the discourse together, while on the other hand they enable the listener to predict or anticipate what is about to be said in the discourse. Anaphoric Connectives are of the former type and Discourse Markers are of the latter type, while Cataphoric Connectives and Logical Connectives perform both these functions.

Cataphoric and Logical Connectives in their function as binders of discourse do not have major implications for the listener since, even if the

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12 The classification of Discourse Markers is based on Greenbaum, *op.cit.*

listener misses the connection, it will become clear in the course of the discourse. Anaphoric Connectives, however, are a different kettle of fish since, by their very nature, they refer to parts of the discourse that have already gone by in the flow of speech, and depend on those parts of the discourse for their interpretation. The listener, therefore, has to recognise an Anaphoric Connective for what it is, and relate it to its correct referent. Failure to do this will result in an inability to follow the chain of thought, and hence, an inability to comprehend the discourse.

This problem is magnified by the fact that the referent is sometimes separated from the connectives by a few sentences. Also, the referent sometimes consists, not of one word, but of a stretch of extended text. This is exemplified below with examples taken from the sample.

> i) The word "department" has, in relation to the study of Government, at least two meanings. Firstly, it is used in the sense of ——. Secondly, it can mean ——. Therefore, you have to be very careful about the context in which it is used. Otherwise you will perhaps confuse what is intended by *its* use.

In this example, the connective item *its* in the last sentence is separated by three sentences from its referent.

> ii) The Renis and Fei model doesn't have built into it any consideration of the capital transfers which have to accompany the labour transfers. *This is* the big weakness of the model.

In this extract, the connective item *this* in the last sentence does not refer to any single word in the foregoing sentence. Instead, it refers to a part of the previous sentence.

The problems outlined above may seem to be unduly magnified, but it has been the writer's experience that many students fail to identify connective items and very often are unable to relate such items to their referents, even when dealing with reading comprehension where there is scope for the reader to go back over the previous discourse for clarification. Imagine the size of the problem then, in listening comprehension, where there is no scope for going over what has been said, except in one's own mind. And this would have to be done while listening to the on-going lecture and taking notes.

As mentioned earlier, Cataphoric and Logical Connectives and Discourse Markers help the listener to anticipate what is coming in the discourse. They therefore do not create any direct listening comprehension problem since even if their implications are not grasped, the discourse itself can still be understood. These features, however, do have important listening comprehension implications when considered in the light of a theory

put forward by Broadbent.[13] He suggests that whatever is heard is stored initially in the short-term memory, later to be recirculated and stored in the long-term memory. The short-term memory, however, is finite in capacity, and if it is bombarded with too much information too rapidly, there is a great likelihood that some of it will be lost, especially since the rate of information decay in the short-term memory is great. Because of this all languages have developed a high degree of redundancy.[14] Infact, the English language has been estimated to be 50 % redundant[15]. Cataphoric and Logical Connectives and Discourse Markers contribute to the redundancy of language since they help to limit the amount of information[16] contained in a discourse. The following extract from one of the lectures in the sample illustrates this.

> It is important to distinguish whether there is mid-ear disease or whether there is inner-ear disease, because it is possible to improve hearing where there is impairment through mid-ear disease. Whereas if the nerve cells themselves have been damaged , there is very little to be done about it.

In this example the words that follow *whereas* contain very little information since they can be predicted with a high degree of accuracy. It can be seen therefore, that words such as the one above contribute greatey towards facilitating listening comprehension by lessening the load on the short-term memory.

Finally, it must be mentioned that although these items aid the listener and do not directly hinder listening comprehension, they might adversely affect listening comprehension in an indirect manner if they are not understood, since anything that is not understood places an additional burden on the short-term memory.

CONCLUSION

Most language teaching courses lay great stress on sentence-level features and this paper has been an attempt to draw attention to some features that exist at a higher level. These features can aid or hinder the listener trying to follow the discourse typical or lectures, and in concluson it can be said that any listener who is able to link up the various units of a discourse efficiently and is able to take full advantage of the signalling potential of the various types of connectives and markers will find the tasks of listening, understanding and note-taking vastly simplified.

13 See W.M. Rivers, *Teaching Foreign Language Skills*, University of Chicago Press, 1968, p. 141.
14 See H.A. Gleason Jr., *Linguistics and English Grammar*, New York, Holt, Rhinehart and Winston, 1965, p. 457.
15 See C.E. Shannon and W. Weaver, *The Mathematical Theory of Communication*, Urbana, Illinois, University of Illinois Press, 1959, p. 104.
16 "Information" is used in its technical sense. See Rivers, *op.cit.*, p. 137.