

Discourse Analysis: the Argument for a Fourth Element of Structure

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Summary

The topic of this article is the structure of exchanges in the field of spoken discourse analysis. The data used for the analysis is classroom data, with a particular focus on eliciting exchanges, although the model itself is shown to be independent of any particular genre of discourse. A modified version of Sinclair and Coulthard's model of exchange structure has been proposed because a simple I-R-F structure does not seem to account for the units of interaction from the data corpus adequately. By defining each element of exchange structure in terms of sequential order, prospection, encapsulation, and its obligatory or optional nature, it seems possible to argue for a fourth element of structure without radically changing the basic I-R-F paradigm, with the use of a simple equation which allows the model to be both comprehensive and economic.

Key words classroom discourse - context independence - discourse analysis - elicitation - exchange structure - interaction - negotiation.

Discourse Analysis: the Argument for a Fourth Element of Structure

In developing a model for analysing spoken discourse there are two important but conflicting considerations; comprehensibility and economy. While a model must account for all the data it is used to analyse it must also remain economical enough to be of practical use to a large number of users. This article proposes a fourth element to Sinclair and Coulthard's (1975) three-part model for exchange structure. The model has developed through continuous attempts to apply it to classroom data throughout the long process of transcription and analysis. For convenience of presentation, three stages have been identified in this process.

i) The analysis at the rank of exchange using the original Sinclair and Coulthard model. (Sinclair and Coulthard 1975).

i) Analysis using revised versions of the Sinclair and Coulthard model.

iii) The adopted version arrived at by reflection on recent advances in the Sinclair and Coulthard model, especially Sinclair 92 on the

structure of exchanges.

In the final section of the article the four elements of structure in the basic model are defined only in terms of interactive structure independently of the context of situation.

Form and Function

In non-technical language this analysis is about "teachers' questions". One reason for basing an analysis of "teachers' questions" on the discourse structure of exchanges is the lack of fit between the form and function of an utterance. While we may often expect the form of an elicitation to be related to its function in an exchange, it is very easy to find examples where this is not the case. For instance, not all interrogatives are initiations or elicitations. In sample 1 the teacher actually terminates an exchange with a rhetorical "question". In structural terms the interrogative is a follow-up that terminates an exchange. It does not elicit any response. The other two interrogatives are elicitations which initiate exchanges.

	Sample 1
	T Who is the ..who is the oldest in the class ?
	S You .. (loud laughter)
→	T OK.. who is the cheekiest?
	O.K. ... no 2.
	Who has the youngest sister or brother ?

In the same way, while elicitations are often interrogative in form, we cannot rely on a stable relationship between the form and function of the elicitation. In the extract in sample 2 below all the elicitations that interrupt the teacher's monologue to initiate exchanges have the form of statements that are suspended for students to complete. They are not always marked as interrogative even by intonation, as a pause is often enough to signal that a response is required.

As illustrated in the extract in sample 2, in major parts of some lessons from the recorded data a common mode of discourse is teacher monologue, interspersed with elicitations which are not always marked as interrogatives by grammatical means. As it has also been shown in sample 1 above that not all interrogatives are elicitations, it is safer to use the term elicitation and to identify an elicitation by its role and status within the structure of an exchange. Eliciting exchanges are exchanges in which the initiation, whatever its form may be, has the function of prospecting a response.

	Sample 2
	T OK Now...
→	We have discussed before step 1 in unit 5 & step 2 And we said that an English family called
	SS Archers
	T Archers family.... They are coming to the Gulf. And this family - as you know consists of 4 people.
→	Now we want to write the name of the family. The first is Yes, Musta... yes Hamad ? (nom)
	S Mr. Paul
→	T Yes. (writing) The first is Mr. Paul
	S Archer
	T Yes, Archer. Yes, that's right.

The Rank Scale Model

In 1975 Sinclair and Coulthard proposed a model for the structure of discourse based on a rank scale of act, move, exchange, transaction and lesson.

Fig 1

Rank Scale
Lesson
Transaction
Exchange
Move
Act

The rank scale was based on a principal of Hallidayan linguistics in which "each rank above has a structure which can be expressed in terms of the units next below" (Sinclair and Coulthard 1975:20).

The model is relevant to any style of discourse, not just the teaching exchanges it was originally derived from. In fact, the Sinclair and Coulthard model seems to have had the dual purpose of applying linguistic criteria to classroom data and of using classroom data as a starting point for building a model applicable to non-pedagogical discourse. Francis and Hunston (in Coulthard 1987) and Tsui (1994) provide very complete and well

illustrated descriptive models for general conversation, showing in detail how the Sinclair and Coulthard model can be applied to non-teaching discourse. It is this independence from strictly pedagogical categories combined with its sensitivity to a pedagogical setting that makes it suitable for this analysis. Inevitably, however, the model has sometimes been considered most appropriate for handling unequal encounters similar to those found in teacher-student interaction (e.g., Richardson in Coulthard and Montgomery 1981).

As the minimal interactive unit of analysis, the rank of exchange has been selected as the most relevant for this research. The reason I have chosen the exchange is that it provides precise information about the structure of interaction. Ranks below this are not complete units of interaction. It is difficult even to determine the boundaries of ranks above the exchange until exchanges themselves have been analysed.

Terminology

The pioneering nature of Sinclair and Coulthard's model inevitably made it subject to frequent adjustment as it was developing. In the literature about the rank-scale model, the volatile nature of the terminology is rather confusing. The reader may share this confusion in the discussion that follows, but may expect to find some relief in the precise definitions of the elements of structure used in the research model provided below.

At exchange level three elements of structure were originally proposed; an initiation, a response and a feedback, this third element being revised to "follow-up" (see Coulthard and Montgomery 1981:97 or Coulthard 1992:71). Partly because it was semantically defined and partly because it was too classroom specific, feedback has now become obsolete as a term for an element of exchange structure. These three elements of structure corresponded to "opening, answering and follow-up moves". There was at this time a one-to-one relationship between "move" and "element of exchange structure" and the terms themselves were virtually synonymous. ("Opening" move = initiation, "answering" move = response.)

The term "follow-up" was in fact transferred from its status as a move to become an element of structure. "Follow-up" as a move was replaced by *acknowledging move*, which was itself transferred from the rank of act to the rank of move. (see Sinclair and Coulthard, 1975:42)

Sinclair and Brazil suggest a different relationship between elements of exchange structure and moves, based on the premise that "the majority of exchanges are basically concerned with information and thus contain one informing move, which can occur either in the Initiating or in the Responding slot" (op cit.:72)

They suggest a relationship whereby an I element is filled either by an informing or an eliciting move, an R is filled either by an informing or an acknowledging move and an F

is filled only by an acknowledging move. This meant yet another change in terminology, so that an opening move is now called an eliciting move, while an answering move is called an informing move.

In Coulthard (1987 and 1992:72) Coulthard and Brazil state:

the source of confusion we wish to avoid is that labelling classes of moves according to the elements of exchange structure they realize tends powerfully to reinforce the very one to one relationship that the device of "double" labelling was intended to avoid.

Figure 2 illustrates how the element of structure called an initiation can contain either an eliciting move or an informing move, just as a response can be realized either by an informing or an acknowledging move.

Figure 2

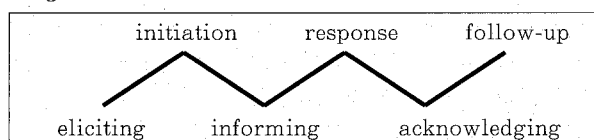


Figure 2 was intended to illustrate that there is no one-to-one relationship between move and element of structure. Unfortunately, the confusion between the terms "element of structure" and "move" has been compounded by the way they have been used interchangeably in the literature. The elements of structure of an exchange have frequently given their name to the moves that realize them, although the moves do have their own labels. In fact, many of the leading discourse analysts refer to initiations, responses and follow-ups as moves and as elements of structure. Sinclair and Coulthard (1975:28, 50 & 53) refer to initiating moves rather than opening moves. Coulthard (1977:106) uses the terms initiating, responding and follow-up moves in his table defining the Eliciting Exchange. Tsui (1994:12) refers to initiating, responding and follow up moves in the same paragraph in which she refers to them as elements of structure. Sinclair (1992:87) refers to I, R and F moves when he is referring to exchange structure. Berry also refers to the elements of structure as moves (in Coulthard and Montgomery, 1981:121).

Although Coulthard and Brazil (1987) stated that there was no one to one relationships between moves and elements of structure in general, there can be a one to one relationship between move and element of structure in a given exchange class. In an eliciting exchange the initiation always has an eliciting move as its head. Of course the initiating element may be more complex than the move at its head. (For example teachers' initiations often contain nominations in either a pre or post-head position.)

Francis and Hunston (1987:120), who do not refer to I R F as moves, state that “moves combine to form exchanges: each move realises one element of exchange structure”. In this thesis it is assumed that elements of structure (I R F) combine to form exchanges and that each element of structure has a particular move as its head.

The ease with which terms from one rank can be duplicated in other ranks has led to some confusion. The term “elicit” illustrates this point. “Elicit” is used as an exchange category for exchanges “designed to get verbal responses from students” (Sinclair and Coulthard 1975:51). Within this exchange there is also an “eliciting move”. In an “elicit” exchange, the exchange is initiated by an element of structure, I, which has an eliciting move as its head. The head of the eliciting move is an act called an elicitation. An eliciting exchange now has the same terminology at three different ranks.

At the rank below move, the unit of discourse called an act was defined in terms of discourse structure in Sinclair and Coulthard (1975:40). Specifically they refer to “what linguistic items have preceded it, what are expected to follow and what do follow”.

For example, an elicitation is an act with the function of “requesting a linguistic response”. It is often the head of an opening move. Tsui (1994:13) suggests that the head act “carries the discourse function of the whole move”. Hence in an elicit exchange an elicitation is the main act in the eliciting move, which is itself the head of the element of structure called an initiation. The initiation prospects a verbal response, so the elicitation of a verbal response is central to the whole exchange.

The Structure of Elicit Exchanges

An ethnographic approach focuses on what is salient rather than on some predetermined category chosen prior to data collection. Elicit exchanges were found to be very salient in the data, so the analysis in this article will focus mainly on their interactive structure as a starting point for analysing the regular patterns of communication between teachers and students.

Stage 1 The Early Model

Coulthard, Montgomery and Brazil (1981:18) state that “most of the classroom data had been easily analysable into a three-move exchanges, each move being relatively short and easily analysable into component acts”. This kind of three-part exchange is illustrated in sample 3 below.

Sample 3	
T Why were houses lighted by oil lamps ?	I
S Because they hadn't electricity.	R
T They hadn't ..yes, electricity. They hadn't got electricity.	F

Although this three-part structure proposed in Sinclair and Coulthard (1975) has been widely and sometimes uncritically accepted as a fair representation of the pattern of eliciting exchanges (e.g., Ramirez in Green and Harker 1988: 137), the original authors themselves have continued to develop and adjust the model. (See Coulthard, and Montgomery, 1981, Coulthard (Ed) 1987 and 1992)

Three-part exchanges frequently occur in many of the recorded lessons, but even a superficial examination of the data indicates that a large number of exchanges cannot be analysed adequately as three-part structures. For example, in one lesson of the data, there are five pages of analysis before an obvious three-part structure occurs. The following exchange illustrates the difficulty of trying to analyse eliciting exchanges using the traditional three-part analysis.

Sample 4	
T	What's the man talking about ? Yes ..?
S	about dogs crossing the road
T	What does the talker call them ?
S	stray dogs
T	STRAY stray dogs... Thank you. Therefore this is the main problem that the man's talking about.

The class had just listened to a recording of a letter complaining about stray dogs. After reading the same letter at a later stage in the lesson the teacher asked the same question. This time a three-part exchange did occur.

Sample 5	
T	Now Pay attention Khalid please Er... What's the man talking about here first of all ? We know that the man is talking about Yes
S	stray dogs
T	stray stray dogs
(S yes)	

This example illustrates clearly how a rehearsed exchange, in which there was no negotiation of new information, was realized as an "ideal" three-part structure as opposed

to a five-part structure in the earlier exchange.

It is the status and role of the third exchange element, the teacher's contribution after a student's response, that requires further examination. The follow-up (F) was initially defined in Sinclair and Coulthard (1975) as optional, although the third exchange element in the classroom context was actually acknowledged to be more or less obligatory, at least in exchanges in which the follow-up consisted of some kind of act of evaluation by the teacher. Sinclair and Coulthard (Op cit.:49) stated that "the act evaluate is seen by all participants as a compulsory element".

It is important to note that Sinclair and Coulthard refer to the participants' view of the status of the exchange elements. By referring to the perception of the participants as a defining factor of an exchange element, Sinclair and Coulthard imply that the context of situation needs serious consideration in interpreting exchange structure. Their comment focuses on one particular aspect of the context of situation, namely its tenor. It is the tenor of the interaction, defined as the roles and status of the participants, that makes the third exchange element (F) appear to be obligatory. I shall discuss this point in some detail in the section that defines each element of structure of the model of analysis below.

Stage 2 Developments in the Model

The characterization of the third element (F) as "obligatory" has led to suggestions that the second exchange element ("R") is more (or less) than a response; it prospects a further response from the teacher which is often an evaluation. In some models (Coulthard & Montgomery 1992, Francis & Hunston 1985) this kind of response has been given the dual status of an initiation, R/I, regardless of its grammatical form and its position in the exchange structure. The structure of an elicit exchange using this model is presented in figure 3.

figure 3

I - (R/I) - R - (F)

Francis and Hunston (1987:131) give the following example to illustrate their model. Their new analysis presents a paradigm in which both obligatory element are provided by the teacher (I & R).

In almost all the exchanges in my data, only the teacher seems to have the right to terminate the exchange. For some analysts this would confirm the suggestion that the final exchange element is not an optional follow-up. It is in some ways like an obligatory response that reacts to what is now seen as a double labelled student's response/elicitation.

Sample 6	move	e.s
		old new
T What's this	eliciting	I I
P A saw	informing	R R/I
T Yes, it's a saw.	acknowledging	F R

This revised exchange structure reflects actual data more closely than the simple I-R-F structure, but leaves us with one very common element with a double label, the second part of which uses a symbol that normally can only be used to refer to an exchange initial element. I have not retained this model of exchange structure because it does not clearly distinguish the elements of exchange structure from each other. The (R/I) is defined in terms of two other exchange elements. It does not have its own independent identity. Hence the need to look again at basic exchange structure and to define clearly the role and status of each element of structure.

In the eleven lessons from a sample of Qatari data only 50% of all exchanges analysed have simple three-part structures. They mainly occur when the first response satisfies the teacher. If the response doesn't satisfy the teacher, he negotiates for a response that satisfies him more, as can be seen in the example in sample 4.

A three-part analysis often obliges the analyst working within this version of the model to accept an (elliptical) silence as an element of structure as in sample 7 below.

	Sample 7		
	T And how many words per minute?	I	I
	S I don't know. We just do it every day and on the computer	R	R/I
→	T -	(F)	R
	T A good secretary can do I think ..is it 60.. 60 words per minute ?	I	I
	S Yea more	R	R/I
	T About 60 words per minute. If you're a good fast secretary that everybody wants to employ. OK	F	R (F)

Using the three-part system this example could be analysed as two exchanges but only if we allow either a two-part exchange with no follow-up or silence as a follow-up. This would satisfy structural rules that only allow one "elicitation" per exchange, later modified in Coulthard & Brazil (1992). The teacher's resolution of this type of negotiated interaction in the final contribution in sample 7 would make it more satisfactory to analyse the interaction as one unit.

Some pedagogical specialists even suggest that the real teaching and learning is going on when the "negotiation", which will be defined in some detail in this article, requires some work between the teacher and student and does not run smoothly. Discussion of this pedagogical point will be deferred until after the analysis.

There are only two indisputably obligatory elements in the models of exchange structure so far discussed: an initiation and a response. Two-part exchanges do not occur frequently in the data, but provide very significant insights into the interpretation of exchange structure when they do occur. The example in sample 8a shows two student initiated exchanges with only two elements of structure, I-R, illustrating that, when the teacher provides a response to a student's question, no third element of structure is needed.

Sample 8a	
T. Right. I want you to get your classbooks , exercise books, your pupils book ..pupil's book and exercise book because you are going to read page 61,62 and then answer the questions.	
S. Exercise books ?	I
T Exercise book.. yea the classbook (writes questions.)	R
SS page , teacher ?	I
T Page 61. The title is decision.	R

If we accept Francis and Hunston's model, this means that **the only obligatory elements of exchange structure in many teacher dominated classroom exchanges are a teacher's initiation and a teacher's "response"**. By applying the paradigm I - (R/I) - R in which both the obligatory elements are supplied by the teacher, we exclude the common-sense observation that some kind of response is obligatory and that the obligatory response is usually supplied by the student. Sample 8b illustrates this point by showing what happens if no negotiation occurs.

The structure I-R occurs in sample 8b when the teacher appears to ask and answer his own question. (We shall leave the decision of calling this interaction an exchange open.) This

phenomenon is not very common (the frequency varies from teacher to teacher), but does occur often enough to warrant discussion. While the paradigm I- (R/I) - R - (Fn) does not necessarily allow us to label units in which teachers seem to supply initiations and responses as "exchanges" it does reflect a similar tenor to the discourse exemplified in sample 8b.

Sample 8b T What's the meaning of half agree ?	I	No negotiation. Students' bids not taken up.
SS Teacher ..teacher	bid	
T When you don't agree You don't disagree You half agree	R	

At the root of this kind of problem is the lack of explicit definition of elements of exchange structure. We shall attempt to supply definitions of the status and role of each element of exchange structure once it has been determined what those elements are and how many of them there should be.

Stage 3 The Final Exchange Model

Negotiation in Exchanges

In the language lessons that make up the data for this analysis, teachers continually had to adjust to the responses they obtained from students, who in turn had to adjust to the teacher's reaction. So far no fully satisfactory model has been found for analysing exchanges like the one in sample 4, although it is by no means the most complex in the data. We could analyse the middle part of this exchange as a side sequence or as an interruption of a three-part exchange structure. We could also analyse the second "initiation" as a bound initiation. However, this would imply that the element was either non-essential or part of a different structure, whereas "negotiation" is arguably a central component within one unit of interaction.

The adaptation between initiator and responder can be shown to be a common feature of many exchanges in the data. During the lengthy process of analysis, it was simply not possible to find tidy boundaries to exchanges with fixed three-part structures for 50% of all exchanges analysed. We may then suspect that phenomena that are often connoted as "extras" in the structure of the exchange such as interruptions, asides, bound initiations or reruns are in fact essential elements of exchange structure. If there is frequent occurrence of adjustment and repair in the negotiation of interaction, it is more satisfactory to develop an exchange model that takes this into account. Indeed, for a model of exchange structure to be adequate, it would need to be able to handle the frequent occurrence of mid-exchange "negotiation". The problem is then to suggest a simple basic

structure that can cope more adequately with the complexity of negotiated interaction.

The Structure of Negotiated Exchanges

It has just been argued that an adequate structural model of a complex verbal event, would need to take the complexity of what is being described into account. At the same time the model itself must respect the efficiency criterion of economy to avoid becoming too complex to be of practical use. Sinclair's restructured model (in Coulthard 1992) resolves a number of problems of analysis that arose in the two previous stages without making the model more complex.

At the same time Sinclair acknowledges the need to elaborate the basic I-R-F model. The essential addition is a "new" structural element : C (challenge). The third element in sample 4 is an example of a "challenge" which occurs when the teacher doesn't accept the student's response and negotiates for a response that satisfies him more. However, "challenge" as a term implies that an essential element of exchange structure always has the illocutionary force of a challenge, so this would seem to be more suitable as a label for an illocutionary act than for an element of exchange structure. (But see Burton (1980) for a defence of the term "challenge".)

Given the central role of negotiation observed in interaction, the term **negotiation** (N) has been preferred for an element that maintains the *negotiation* of the exchange open. (This may not always be a challenge in illocutionary terms.) By using the term "negotiation" the interactive role of the element of exchange structure is emphasized. In structural terms the interlocutors are negotiating a satisfactory outcome of the exchange. To sum up, if the reaction to a response has the effect of keeping the negotiation of the exchange open, it has been called a negotiation (N). If on the other hand it terminates the exchange it has been labelled (T). This is illustrated in figure 4.

Figure 4

$$I - (R - N)^n - R - (T)$$

The enormous advantage of the (C) or (N) is that it provides a more economical analysis of exchanges that appear to have more than three basic and essential elements; these can now be analysed in terms of a very basic I-R-F structure by simply proposing that any occurrence of I-(R)-N is to be analysed as equivalent to an I in structural terms. The equation $I-R-N=I$ means that an elicit exchange can terminate in two ways. It can terminate with an R when a response is not followed up at all, or it can terminate with a T when a response is not followed up with a challenge, adjustment, improvement or any other act that constitutes a move to keep the exchange open in order to negotiate a more satisfactory outcome. Considering the role of negotiation to be structurally central within

an exchange, an N move is not seen as an initiation of a new exchange. It encapsulates preceding elements in the exchange by maintaining the negotiation open. A re-analysis of sample 4 shows how the analysis operates.

	Sample 4 T What's the man talking about ? Yes ...? (nominates student)	I	
	S1 about dogs crossing the road	R	
→	T What does the talker call them ?	N	C (After Sinclair)
	S2 stray dogs	R	
	T STRAY stray dogs. Thank you. Therefore this is the main problem that the man's talking about.	T	F (After Sinclair)

Double-facing coding symbols like R/I have now been avoided, so the problem of having so-called initiations in the middle of exchanges is now resolved. There is only one initiation for each exchange. In addition a "bound" initiation, Ib, is no longer needed as it can now be replaced by an N which is central in a single exchange.

Although this analysis has emphasized interactive structure, the information content of the exchange is also more satisfactorily handled by the new element, N. Only one piece of information is negotiated, so it would seem unsatisfactory to consider it to be more than one negotiated unit. Negotiation is nevertheless mainly defined as an interactive unit, a unit that maintains the interaction open. It can also have the sense of a unit that negotiates a piece of information in an exchange. The teacher as "primary knower" (Berry, 1981:126) uses his status to negotiate a more satisfactory completion of the proposition the teacher elicited in his initiation. As Berry says:

There must be a slot in the exchange where the primary knower indicates that he knows the information and where he consequently confers upon the information a kind of stamp of authority.

We might, however, point out that the participant who has the status of primary knower is not necessarily the real primary knower. It is the person with the higher status that controls the interpersonal structure regardless of who actually is the primary knower, so the knowledge of information itself is not the decisive factor. In sample 9 the teacher does not actually know how many floors there are at two department stores in Qatar's capital Doha, yet he still provides the "stamp of authority" that his role of teacher accords him by concluding that the information is "right".

	Sample 9 T Now.. This department or as you know Al-Salam consists, as I think of one floor or two floors ? Who went there ? Yes	I
	S One floor	R
→	T One floor. I think in Assad there is one floor. That's right.	T
	and in Dafna or on the Corniche there are	I
	SS two floors	R
→	T two floors. That's right.	T

Sinclair (1992:88) excludes "information" from his model to emphasize interactive structure.

There is no reference to primary and secondary knower, or indeed any state of awareness of participants. This is because models based on the exchange as a device for information transfer do not lead us to the interactive structure....

The Rationale for the Model of Analysis

Given the number of variations of the original Sinclair and Coulthard model already available, justification of a model for analysis in the form of detailed and explicit definition of the status and role of each element of exchange structure has been accorded a high priority here. The detailed definitions that follow are an attempt to define each element as precisely as possible. These definitions provide the criteria for deciding the identity of any element in the data. They allow each element to be clearly contrasted from the other elements in the exchange. Explicit definition also makes the model more transparent for discussion and allows other researchers to challenge it more precisely by referring to specific premises of the model.

The status of Exchange Elements

For a structural analysis to adhere to criteria of efficiency, the independent status of each element of structure needs to be demonstrated. The important defining and contrasting factors are:

1. Sequential position in the exchange; which must include impossible sequential positions for each element and impossible combinations involving each element of structure.
2. The obligatory or optional nature of elements of structure.

3. Encapsulation. (Sinclair 1992) An element of structure that necessarily refers back to one or more preceding elements of structure within the same exchange is said to encapsulate those elements. Encapsulation includes the notion of anaphoric coherence.

4. Prospection. (op cit.) To prospect is used in the sense of to negotiate for a realization of an element of structure from another participant. Prospection can then only be inferred from regularities in the data, regular intention being inferred from regular effect.

5. The notion of prediction has also normally been used to define elements of structure (e.g., Coulthard & Montgomery 1992), but has been replaced by prospection in the Sinclair model. If an element of structure is observed routinely and unconditionally to require another element to follow it (not necessarily immediately), it can be said to predict that element. The second element is then predicted. Prediction is only used to refer to the certain occurrence of the elements said to be predicted in the exchange. Prediction is seen as being part of the structure that participant members of a discourse community always routinely produce in the same setting.

Elements of Structure Defined

The numbers below refer back to the five defining factors outlined in the previous section. For example, 1 refers to sequential position, while 4 and 5 (prospection and prediction) are sometimes dealt with together.

I 1. The initiation is the first element of structure in the exchange and cannot occur in any other position.

2. An exchange could not be envisaged without an initiation so it is an unconditionally obligatory element of structure.

3. An initiation can and often does refer back to previous exchanges, but this is not the same as encapsulation within an exchange as defined in 3 above, because encapsulation is only used to refer to anaphoric reference within an exchange.

4. A teacher's initiation prospects for a student's response that satisfies the initiator. It prospects an (Rp-T) pair but may lead to a reinitiation (N).

5. In my Qatari data (I) regularly predicts only an (R). Teachers do terminate their own initiations from time to time without a student response. If the (R) is produced by the teacher, it removes the need for a student prospected (T) so that what is actually predicted is still an exchange final contribution by the teacher, be it a response (R) to his own initiation (I) or a student's initiation (I), or follow-up to terminate the exchange (T) after a student's response. All three occur in the data. Only an R is unconditionally

predicted by an I. In the Qatari data, students normally have very limited rights of initiation in teacher - whole-class interaction, although student initiations do occur.

R 1. A response can follow only an (I) or an (N). Given the equation $(I-(R)-N) = I$, explained above, we may consider it can only follow an (I) in terms of general discourse structure. This is because the equation allows us to analyse any negotiation as part of a composite initiation which may include any number of responses and negotiations.

2. A response is obligatory unless the exchange is abandoned for some exceptional reason. (Sometimes the response is not provided by the student, so a student's response is not obligatory or predicted, although it is prospected for and does normally occur.) If an Initiation (I) is followed by a Negotiation (N), an R is still obligatory given the paradigm $I-N = I$.

3. An (R) encapsulates an (I).

4-5. Some kind of response is predicted by an initiation. However, responses are not always provided by the student. (Samples 2-8a & b above illustrate a teacher supplying a response to his own or to a student's question.) A response (R), but not necessarily a student's response, is predicted by an initiation.

A student's response in a teacher initiated exchange needs to be carefully examined in terms of prospection and prediction. An initiation by the teacher prospects for a response from a student, but as the response is not always provided by the student (see sample 2-8), a student's response is not predicted. Given the encapsulating status of the R, we may also consider that it is the initiation that predicts either a teacher's response (R) to his own or a student's question, or a student's prospective response (Rp) followed by a (T). In either case a response is certain to occur so a response is predicted. A student's response is not certain to occur so it is prospected.

A response may terminate an exchange, but whenever a student's response occurs, it regularly prospects a third exchange element, either an N or a T, from the teacher.

The use of R/I is rejected because of the following criteria: (i) the sequential position of I and (ii) the aim of having only one element of structure in each position in the framework. A student's response has been labelled Rp in the classroom context where it is important to stress that it prospects a reaction from the teacher (N or T). The primary function of an R is to respond to an initiation, so in purely structural terms an Rp remains an R which has a secondary function of prospecting a reaction from the teacher.

N 1. A Negotiation normally occurs after a Response but can occur after an Initiation.

2. An N is not obligatory. In the classroom context it is normally an option available to the teacher for some pedagogical purpose such as negotiating for a more satisfactory response as in sample 4.

3. An N encapsulates an I-R pair. Its function is to enable further negotiation before closing the exchange. In a teacher elicit exchange, an N both encapsulates the preceding I-Rp pair and elicits a further response.

4-5. An N predicts only an R. In other words there is certain to be a response after an N. In teaching discourse it prospects an Rp-T pair, but an Rp-T pair is not a certain outcome as the N may lead to another Rp-N pair or several Rp-N pairs. Hence I-(Rp-N)_n is the structural equivalent of I in terms of prediction and prospection. An N re-negotiates the part of the exchange it encapsulates. This re-negotiation can go on almost indefinitely.

T 1. A T is a follow-up that terminates an exchange.

2. It is not obligatory, as some exchanges end with a response, but in teaching discourse it invariably terminates an elicit exchange that was initiated by the teacher, if there was a student response. The teacher can also terminate an exchange by providing the Response himself.

3. A T encapsulates the whole of the exchange that it terminates.

4-5. It is not possible to say a T is predicted as it is not certain to occur. In Qatari classroom discourse, there are two necessary conditions for the occurrence of a termination. Firstly the response must be provided by the student. This is not always the case. Secondly the teacher must decide to terminate the exchange after the response and not re-negotiate the response with an N. A T is therefore prospected for by the student but not always provided. By the time the teacher terminates an exchange he may have nominated a different student.

The tenor of the interaction is closely linked to the right to terminate an exchange. In most classroom discourse a teacher invariably terminates the exchange and seems to have the right to terminate whether he is satisfied or not with the exchange, though normally by terminating he is expressing satisfaction with the immediately preceding student response. If the producer of the R has at least equal status with the initiator of the exchange, then the R may terminate the exchange. When an R terminates an exchange, it is rarely the student who supplies it.

Conclusions

The salience of teachers's questions in the data motivated the search for an efficient means of analysing their role in the communication between teachers and students. The interactive structure of eliciting exchanges has been emphasized to avoid confusion between the

grammatical form of questions and the function of elicitations in discourse. Eliciting exchanges have been chosen as the most useful unit of analysis as they allow the contrastive distinction between elements of exchange structure, and also the further definition of each element in terms of moves and acts which are "lower" ranks in the model.

Constant confrontation over more than a year between the practical needs of adequately analysing the data and theoretical developments in the I-R-F model resulted in the adoption of a revised paradigm for eliciting exchanges : $I - (R-N)^n - R - T$. This equation takes into account the dynamic and often untidy nature of negotiated interaction. It retains the basic simplicity of the I-R-F structure, but also responds to the potential complexity of interaction.

Attempts to assess the efficiency of the model have covered three main areas. Firstly economy has been considered; the basic pattern remains simple, but is able to handle complexity. Secondly the adequacy of the model to handle all exchanges in the data has been assessed. Finally the independence of each element of structure has been discussed in some detail. No element can be substituted for another if the five defining and contrasting criteria are applied. These criteria are : sequential position, encapsulation, prospection, predictability and the obligatory or optional nature of an element.

Using these criteria it was possible to conclude that even exchanges with more than three elements can always be reduced to a basic I-R-(F) structure using the simple equation $I-(R)-N = I$. It could also be shown that there are only two obligatory elements in an exchange, I and R.

The basic model outlined here in terms of elements of structure at exchange level claims to be independent of any particular context or discourse domain. As analysis of discourse is not an end in itself, it was important to find a model that was also sensitive to context. Reference has been made to the tenor of discourse to lay the foundations for later discussion on roles of participants in the interaction. The model also sheds light on the interactive effect of elicitations from which we may where necessary later interpret their purpose. Elicitations occur in two elements of structure, I and N. They can be said to initiate discourse construction, to prospect responses and to probe into preceding discourse in the exchange with negotiations that maintain the unit of interaction open.

Bibliography

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|---------------|------|---|----------------------------|
| Allwright, D. | 1980 | Turns, Topics & Tasks : Patterns of Participation in Language Learning & Teaching. | (In Larsen -Freeman 1980.) |
|---------------|------|---|----------------------------|

- Banbrook, L. 1987 *Questions about Questions: an Inquiry into the Study of Teachers' Questioning Behaviour in ESL Classrooms.* *TESOL Quarterly*, 20:47 -59.
- Bellack, A et al. 1966 *The Language of the Classroom.* New York: Teachers College Press.
- Berry, M. 1980(a) *Layers of Exchange Structure.* Discourse Analysis Monographs no 7 : Univ of Birmingham, Eng Lang Research.
- Brown, G & G .Yule. 1983 *Discourse Analysis.* Cambridge : CUP.
- Burton, D. 1980, *Dialogue and Discourse.* London: Routledge and Kegan Paul.
- Cazden, C. 1988 *Classroom Discourse. The Language of Teaching and Learning.* Portsmouth: N.H: Heinemann.
- Cook, G. 1989 *Discourse* Oxford : OUP
- Coulthard, M. 1977 *An Introduction to Discourse Analysis.* London: Longman.
- Coulthard, M & M, 1981a Montgomery. (Eds) *Studies in Discourse Analysis.* London : Routledge & Kegan Paul.
- Coulthard, M (Ed).1987 *Discussing Discourse.* Birmingham.: E L Research.
- Coulthard, M (Ed). 1992 *Advances in Spoken Discourse Analysis.* London: Routledge.
- Edmondson, W. 1981 *Spoken Discourse.* London : Longman.
- Fine, J. 1988 *Second Language Discourse: a Textbook of Current Research.* Norwood : Ablex.
- Flanders, N. 1970 *Analysing Teacher Behaviour.* London:Tavistock.
- Francis, F & S. Hunston. 1985 *Analysing Everyday Conversation.* In Coulthard ,87
- Green, J & J.Harker.1988 *Multiple Perspective Analyses in Classroom Discourse.* Norwood, N.J: Ablex

- Green, J & C. Walle. 1981 **Ethnography & Language in Educational Settings.** Norwood, N.J: Ablex.
- Kramsch, C. 1981 **Discourse Analysis & Second Language Teaching.** Washington : National Institute of Education.
- Larsen Freeman, 1980 **Discourse Analysis in Second Language Research.** Rowley,MA : D.E. Newbury House.
- Larsen Freeman,D 1991 **Second Language Acquisition Research.** Harlow: Longman.
& M, Long.
- McCarthy, M. 1991 **Discourse Analysis & Language Teachers** Cambridge : CUP.
- McHoul, A.. 1978 ***The Organization of Turns at Formal Talk in the Classroom.*** Language in Society 7: 183-213.
- Mitchell, R, 1981 ***The Foreign Language Classroom : an Observational Study.*** Stirling: Sterling Educational Monographs: 9.
B,Parkinson & R, Johnstone.
- Moskowitz, G. 1967 **The Flint System, an Observational Tool for the Foreign Language Class.** In Simon, A and E, Boyer (Eds) 1-15
- Nunan, D. 1989 **Understanding Language Classrooms.** New York: Prentice Hall.
- Seliger, H.W & 1983 **Classroom Oriented Research in Second Language Acquisition.** Rowley MA: Newbury House.
M.H .Long (eds).
- Seliger,H.W, & 1989 **Second Language Research Methods.** Oxford: OUP.
E.Shohamy.
- Sinclair, J.McH & 1982 **Teacher Talk.** London: OUP
D.Brazil.
- Sinclair, J.McH & 1975 **Towards an Analysis of Discourse.** London: OUP.
M.R. Coulthard.
- Stubbs, M. 1983b **Discourse Analysis.** Oxford : Basil Blackwell.
- Stubbs, M & B. 1979 **Analysing Classroom Language.** Milton Keynes: OUP.
Robinson.
- Stubbs,M, & 1976 **Explorations in Classroom Observation.** Chichester: John Wiley.
S. Delamont.

- | | | | |
|---------------|------|--|---|
| Tsui, A. | 1987 | Elicitations. | Birmingham :
(In Coulthard 87) |
| Tsui, A. | 1994 | English Conversation. | Oxford: OUP |
| Van Dijk,T.A. | 1981 | <i>Discourse Studies & Education.</i> | <i>Applied linguistics</i>
2(1) : 1-26. |
| Van Dijk,T | 1977 | Text & Context . Explorations in the
Semantics & Pragmatics of Discourse. | London : Longman |
| Van Lier, L.. | 1984 | <i>Discourse Analysis & Classroom Research: a
Methodological Perspective.</i> | <i>Journal of the
Sociology of
Language</i> : 49. |
| Wardaugh, R. | 1985 | How Conversation Works., | Oxford :
Basil Blackwell. |

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