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DISCURSIVE AND COMMUNICATIVE FUNCTIONS OF NON-VERBAL COMMUNICATION

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RESUME

L'objet de cet article est de clarifier quelques-uns des présupposés de la recherche menée au C.R.A.P.E.L. sur le discours oral.

Le premier de ces présupposés concerne le modèle global de la communication que nous avons provisoirement décidé d'adopter. Nous faisons l'hypothèse que, dans la description de l'interaction communicative, les composantes verbale, paraverbale et non-verbale de la communication se définissent non en termes d'une hiérarchie qui attribuerait un rôle principal à l'une d'entre elles et des rôles secondaires aux deux autres (c'est, typiquement, l'hypothèse de travail des linguistes qui tiennent la composante verbale comme primordiale), mais en termes d'un système dont chacune d'entre elles constitue un des termes.

Le deuxième présupposé concerne la nature de la composante non-verbale. Nous faisons ici l'hypothèse que les messages non-verbaux peuvent être analysés en unités significatives et en unités distinctes, mais que les dernières ne peuvent être analysées en traits définitifs (sur le modèle des traits distinctifs des phonèmes), et que, par conséquent, l'étude de la composante non-verbale doit dès le départ être une étude du type « émique » et non « étique ».

En outre, nous faisons l'hypothèse méthodologique que les éléments nonverbaux peuvent être subdivisés en trois catégories principales, les signaux (" emblems "), les gestes (" gestures ") et les indices (" indices "), et que ces trois catégories doivent être maintenues séparées dans l'analyse, la catégorie « gestes » semblant, par ailleurs, la plus directement liée à l'interaction communicative.

Le troisième présupposé concerne la structure de l'interaction communicative. Nous faisons l'hypothèse que cette structure est bipartite : elle comporte à la fois un niveau « discursif » (actes discursifs décrits en termes de prise de parole, de rôles d'interactants, etc...), et un niveau « communicatif » (actes communicatifs décrits en termes de valeur illocutoire). Cette double structure se trouve réalisée par l'ensemble des manifestations verbales, paraverbales et non-verbales qui constituent la communication, et en détermine par conséquent les fonctions respectives.

Outre leur intérêt direct pour l'analyse du discours oral, ces trois présupposés nous semblent permettre une meilleure orientation des recherches dans des domaines aussi divers que la pédagogie des langues, la sociolinguistique et même la psychiatrie. This paper was given at the annual meeting of the British Association for Applied Linguistics - Exeter, September 14th - 16th 1976.

During the last decade or so, there has been a clearly discernible rekindling of interest in the problem of meaning. Researchers in many different domaines, but in particular sociology and ethnology (Fishman 1971, Gumperz & Hymes 1972), have found inadequate the type of microlinguistic analysis whose investigations are strictly limited to the internal functioning of the verbal code - phonetics, morpho-syntax and so on independent of the circumstances in which the code is used. Consequently, there has been a widening of the field of research to include the external functioning of the verbal code as well, what people do with words, how they use them in interaction. The emphasis in such an approach shifts from structure and grammar to function and communicative competence, from assembling utterances to doing things with them, from the utterance in isolation to the utterance in the widest possible linguistic context.

This, then, is the domain of discourse analysis, — as some investigators understand it at least, — the description of the linguistic aspects of interaction. It is emphasized that this paper 1 refers exclusively to spontaneous authentic face-to-face informal interaction, and not to written discourse at all.

Essentially, then, discourse analysis is an analysis of meaning, but meaning seen not in the traditional philosophical or "semantic" sense of isolated concepts: rather, the discourse analyst studies meaning as a construct of interaction, and he studies the various ways in which we create, relate, organize and realise meaning in behaviour. We have quite abandoned the attempt to find one universal definition of meaning, the meaning of meaning, largely as a result of our growing appreciation that meaning resides in and is conveyed by the combinations, the inter-relationships between, a number of semiotic systems.

These include "all the means of communication capable of conventionally coded, short-term manipulation — language, tone of voice, gesture, posture, body movements, spatial orientation, physical proximity, eye contact and facial expression can be thought of as being woven together to form the fabric of a conversation, and we can understand the communicative texture of an interaction best by seeing the relationship of the different strands." (Laver & Hutcheson, 1972).

 $^{^{1}\,}$ The work in this paper has been carried out in close collaboration with Marie-José Gremmo and Henri Holec.

Basic to this approach is the concept of the act of communication. An act of communication can be realised by a wide range of behaviours and conveyed along a number of different channels. From the purely communicative point of view, it makes no difference whether the realisation is verbal or not. That is, a speech act is just one of the possible realisations of a communicative act: a shake of my head can communicate disagreement just as efficiently as the word "No". Indeed, so can the right intonation or key choice, so can facial expression and certain gestures. And of course, this is an extremely crude example: the meaning of an act of communication is much more often the product or sum total of a head movement plus words plus intonation and key, plus facial expression, plus skeletal disposition, plus all the relevant situational features; meaning is the relationships, if you like, between all these features.

What we are trying to develop, then, is a unified or integrated model for the description of discourse, since the *messages* conveyed by a given behaviour or along a given channel cannot be studied in isolation. This is not to say that the *realisations* cannot be studied separately, of course, but that is quite a different thing. To put it more concretely, we would claim that it is impossible to describe interaction on the basis of, say, the verbal component alone.

Instead, we handle the communicative aspects of interaction in terms of three major components [this division is roughly akin to what the semiotician Fernando Poyatos has called "the basic triple structure" (1976)]. These components are:

- (i) The verbal component, having the features + verbal + vocal
- (ii) The paralinguistic component verbal + vocal
- (iii) The non-verbal component verbal vocal

This claim that all three components are equally important from a communicative point of view sounds exaggerated, ridiculous even, to more traditional linguists, who would prefer to restrict the domain of linguistics to the verbal component. Theoretically, though, one can argue that interaction is systemic, and that the verbal component is only one term in that system. The values of terms in systems are mutually defining and it is therefore not possible to describe one in isolation, as it were. This is, of course, one of the fundamental tenets of modern linguistic science. But whereas no linguist would dream of trying to account for, say, a pronoun without studying the pronominal system in which it functions, many are still trying to account for the value of the verbal component without studying the non-verbal components in the communicative system.

There are several reasons for this, not the least of which is the privileged status of the verbal component in the history of linguistic science, and the resultant confusion between degree of linguisticness on the one hand and importance in communicative function on the other (Hockett, 1960 a, b, Lyons, 1972, Thorpe, 1972). Other reasons include

- the belief that non-verbal communication is simply non susceptible to rigorous investigation in the way that the verbal component is;
- the belief that non-verbal communication is universal.

We hope that the recent work in the field — Argyle (1972), Birdwhistell (1970), Efron (1972), Kendon (1971), Laver and Hutcheson (1972), to name just an alphabetically ordered few — permits us to set aside the first of these objections. But the second, the universality or otherwise of non-verbal communication is by no means a dead duck. It is, of course, just a variant of the nature-nurture controversy but one which highlights problems which are immediate for the kinesicist and for the discourse analyst. The basic problem is that of degree of acculturation: it is possible to argue strongly both for the thesis that there is no such thing as "natural behaviour" (Mauss 1936), and for the universality of non-verbal communication on the basis of identical evidence. This is always a pretty clear indication that one is involved with a demarcation dispute.

An especially clear example of this problem is Eibl-Eibesfeldts' description (1972) of eyebrow flash, which seems to be a human kinesic universal. It can be traced back phylogenetically in the primates to the actual opening of the eyes, with lifted eyebrows as an epiphenomenon. This is only the starting point for the ritualisation of a range of attention signals — curiosity, questioning, surprise, etc. — which in turn can be patterned in different specific cultures to give quite opposite signals, factual yes and factual no. In other words, at one level of significance eyebrow flash is a universal, at another it is highly acculturated. Most of us use it identically when greeting people, but there is a wide variety in the other ways in which we use it in face-to-face interaction. How do we distinguish between a smile which is "just" a smile, a smile which is used to modify interaction in some way and a smile used by a doctor to "call" in his next patient from a crowded waiting room? Or between a nod of agreement, a nod which is an attention-signal "go on", and a nod which means "I am falling asleep". The problem is that we have as yet no theoretical model for distinguishing and relating behaviours according to levels of significance and degrees of acculturation, although this paper is a tentative step In that direction. Kinesic behaviour can have communicative value, so we must account for it in our description of discourse structure. In the field of total body communication we have F. Poyatos' taxonomic grid — which is

extremely useful because it avoids those very questions of significance; it has the advantage of relating verbal, paralinguistic and kinesic components along the spectrum of sensory categories. In the field of kinesics proper there is the work of R. Birdwhistell as well as the work done in the fields of psychiatry and pathology, which in fact probably accounts for the major part of the literature on this subject. (Cf. Scheflen, 1973, Ekman and Friesen 1968).

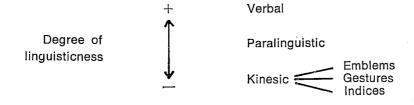
But the work described here differs from their work in that we are not pursuing the line of micro-anatomical description, nor of pathology, as has previously been the case. Instead we concentrate on establishing categories of gesture according to their communicative value and function — and according to their interrelationships with the verbal and paralinguistic components of the communication situation. This is why the type of approach to kinesics pioneered by Ray Birdwhistell does not seem to be a particularly fruitful one from the point of view of discourse analysis.

There are two reasons for this:

- 1. It seems that kinesic data is not susceptible to distinctive features analysis.
- 2. Concentration on the internal structure of kinesic behaviour tells us no more about discursive functions than concentration on internal structure of the verbal code does.

To handle the external functioning, then, we obviously need some kind of model relating non-verbal behaviours in terms of degree of significance. Unfortunately, complete confusion reigns on this crucial point — partly due to the problems concerning degrees of acculturation, partly to the complexity of nonverbal communication itself, involving as it does several different loci (head and face, posture, hands, proxemics) whose inter-relations we do not understand and whose relations with other components we do not understand.

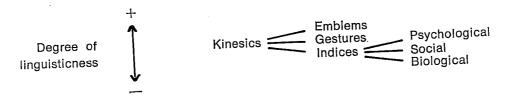
Tentatively, and simply as a working hypothesis, we suggested that for the purposes of a functional analysis, it is possible to situate kinesic data in the following way:



This is to be understood as a continuum going from emblems (the term is adapted from Efron, 1972) i.e. items which are conventional, specific, isolable, conscious, intentional, replicable and easily expressed in words (e.g. "thumbs up", the obscene V-sign), to those which are not (e.g. the behaviours including paling and sweating, "jerkiness" of movement, shaking hands, that characterise "nervousness"). In other words, this represents a decreasing degree of linguisticness, going from signals which may even have a symbolic meaning through to indexical information. By *indices*, I mean, of course, behaviour carrying indexical information, that is, information about the speaker (Laver and Hutcheson [1972]). Such information can be treated under three broad headings:

- Psychological or affective indices (smiling, weeping, sweating, blushing);
- Social information (class, occupation);
- Biological indices (age, health, fatigue, sex) (cf. Riley [1975]).

This gives us, then, the following sub-categories:



This is desperately simplified, of course, but it does have some advantages. In particular, it enables us to set aside, even if it does not pretend to solve, the nature-nurture controversy which can be seen to be a matter of relative emphasis. If you define the meaning, the function of non-verbal communication in terms solely of signals or indices you are going to get extremely different results. Thus this scheme helps us exclude items from the extreme ends of the spectrum from consideration.

It also helps us to see more clearly at least a problem which has bedevilled the study of non-verbal communication as much as that of verbal language — that old friend formal identity. The same behaviour may or may not be significant at any or several points along the cline. A crude example is head-scratching — does my scalp itch? Or is this a signal of puzzlement? A more complex example can be seen if we try to locate blinking/blink rate at different points on this scheme. At the indexical level various blink rates can communicate information about the individual's degree of aggressiveness or

a tendency to catatonic withdrawal. At the gestural level, blinking plays an important part in the structuring of the transaction being one of a group of behaviours associated with turn-taking: at the same level it also has a modulating function, usually toning down what might otherwise be interpreted as categorical utterances. And at the level of emblems we have the "language of the eyes" of such cultures as Spain and India; nearer home, a deliberately exaggerated blink is often used as a signal of amazement. So we have the same behaviour occurring at different points along our cline and with different communicative values.

Similarly, the same behaviour can convey information at different levels simultaneously. Let us take as an example the kind of "cool" American wave, usually associated with "Hi!", which Lawrence Durrell (1957), has so aptly described as "stroking a chorus-girl's bottom". At the indexical level, we have the social information — this is probably an American. At the gestural level we have a greeting: such a behaviour clearly has force of a speech act. And it is sufficiently conventional for us to describe it as an emblem. The analyst of the verbal component is familiar with this problem, but at least he has his formal categories pretty cut-and-dried, so that he can go ahead and tackle the functional categories. The kinesicist, on the other hand, is working in the dark in both directions, scurrying to and fro without a map, just the chaos of his corpus to guide him. He has no formal description and no functional description.

To the kinesicist interested in discourse analysis, then, this schema for all its faults, does have one great advantage: it helps him distinguish between what is and is not grist to his mill, he is able to narrow down his search considerably to "gesture" (including facial expression and eyes movements). Of course, it will not be easy to decide where exactly to draw the line; to some extent that will be arbitrary — we are, after all, dealing with a cline — and it will sometimes be a matter of definition or often the purpose to which he intends to put his model and his results. It is a rule of thumb then, no more.

The next problem to which the investigator of non-verbal communication must address himself is the integration of the relevant linguistic non-verbal behaviours into his model. To do this we need a further set of functional — not anatomical, not etic — categories for non-verbal communication. As an indication of what these might be, let us look briefly at some of the behaviours we have so far identified in our analysis of French video-taped recordings.

Although based on a relatively complex approach to the organisation of discourse, the validation of these categories still remains informal, i.e. different

observers are able to use them consistently. For the moment, therefore, they have the status of working categories, no more. They include:

- kinematopoeia
- deictics
- gestures having illocutionary force
- turn-taking signals
- attention signals
- address signals.

The most important single class of "content" gestures (and possibly the most frequent overall) is the type we call **kinematopoeia** and which others have called "illustrators". The degree figurativeness varies considerably within the class. If I say "She really was a beautiful blonde", outlining with my two hands the "hour-glass" symmetrical curves associated with beautiful blondes, I am using a highly stylised gesture: the distinction between gesture and signal becomes extremely fine here.

If I say "There was this enormous great box ", spreading my hands in "fisherman's tale "fashion to illustrate "enormous great" and then marking a square by first putting my hands parallel, away from and then parallel across my body for "box", there is a clear representational relationship between verbal proposition and gesture.

Most speakers also establish points of reference for varying lengths of discourse which are then used for the kinesic marking of spatial relationships, movement etc... — the phenomena usually handled by the prepositional system in verbal English. Idioms like "I'd like to come back to the problem of..." often quite clearly retain the literal spatial meaning in their kinesic marking; although this marking may differ greatly anatomically from individual to individual, it usually involves a "return" to the established point of reference. This also applies to the kinesic markings for antithesis, pros and cons, series and certain other similar discourse phenomena.

Again, as one might expect, the whole system of **deictic reference** is very commonly marked by non-verbal communication. There is *pointing* of course, but also the ways we orient our body and head and move about. Indeed a sound-recording alone is often quite incomprehensible because of this, especially if the interaction involves some other kind of somatic activity, whether it is a work-task, a game, or eating a meal. And it is not just a matter of identifying the referents of deictics or pronouns, since the kinesic behaviours may well be completely independent of the verbal element, as for example, when we point out an ashtray to a friend without saying anything.

Acts of communication can be realised through the verbal or non-verbal components or a combination of the two. As such, the non-verbal behaviours nave or share **illocutionary force**, the force of speech acts such as offering, prohibiting, disagreeing, suggesting and so on. Examples include:

agreeing and disagreeing, by nodding or shaking one's head:

greeting, by waving and/or by eyebrow flash [Eibl-Eibesfeldt (1972)];

declining, e.g. by placing one's hand over a cup or glass when offered more;

requesting, e.g. asking for a cigarette by putting two fingers to one's lips and raising the eyebrows quizzically;

commanding: e.g. a policeman makes a winding motion to tell a motorist with whom he wishes to speak to lower the window of his car;

questioning a statement or doubting: often by facial expression involving compression of the lips, which are turned down, raised eyebrows and the head moved rhythmically from side to side 4-5 times;

reporting ignorance: e.g. by shrugging or contracting shoulders and throwing up both hands, palms upwards, plus appropriate facial expressions.

Of course some of these labels are unsatisfactory, but these behaviours do occur and they are communicative and should therefore be included in any description of interaction that aims at exhaustivity.

By **turn-taking** and **address**, we mean the regulative mechanisms of interaction which govern the distribution of utterances and the transitions from speaker-state to listener or hearer states, *who* speaks when. In relatively informal unstructured situations — conversations — this is almost exclusively a task of non-verbal communication.

By **turn-taking**, we mean that set of rule-governed behaviours controlling the sequential structure, timing and distribution of utterances. Putting it another way: why don't we all speak at once? What are the rules and behaviours which regulate what I call **interactional tactics**? In fact we already have a reasonably clear idea of many of these rules, particularly those concerning gaze, which, as work by Duncan (1972, 1973) and by Kendon (1964, 1967, 1971) has shown, is the most important single channel for turn-taking signals in face-to-face interaction. "L'œil écoute", said Claudel — "The eye listens". In fact it does much more than that: it checks that the listener is in

fact listening, it prepares him to become the speaker, or prevents him from doing so. We know, for example, that a speaker who wishes to yield the floor will make eye-contact with his interlocutor immediately before the end of his utterance and we know something about the various postural and gestural behaviours that often accompany this, such as a change from stress to syllable-timing, so that gestural and verbal elements end simultaneously. Also included in turn-taking behaviours are creaky voice, low key, cessation of gesture and body movement.

By **address** we mean that rule-governed set of non-verbal behaviours by means of which a speaker selects and indicates his listeners in groups above the dyad. When we interact in a group we do not usually speak to all the group all the time; we speak to individuals and sub-groups. The mechanisms for this system of address are, again, eye-contact, head-direction, gestures, orientation and posture. By observing this essentially very simple address behaviour we are able to state with a high degree of accuracy which participant (s) a speaker is speaking to for any given utterance.

Address is very important and interesting, because it provides us with an extremely powerful tool for the description of interaction. We now have a way of coding utterances that will apply equally well both to formal and informal types of interaction. By distinguishing for each successive utterance 1, 2, 3... which actor A, B, C... is the speaker S, which the listener (s) L and which the hearer (s) H, we are able to code each utterance in terms of participant states. Let us take as an example the following brief interchange: three participants are engaged in completely informal conversation:

1 A — T'as vu " 2001 " ?

2 B — Ben... non

3 A — Toi ?

4 C — Moi non plus

This can be diagrammed and coded as follows:

	1	2	3	4
Α	S	L	S	L
В	L	S	Н	Ι
С	Н	Н	L	S

Legend: 1,2,3,4 — Utterances in serial order

A,B,C — Participants

S - Speaker

 L istener (s): the participant (s) addressed by the speaker of a given utterance.

H — Hearer (s): the participant (s) not addressed by the speaker of a given utterance.

What this tells us is that between the second and third utterances there was a *change of address*. A spoke first to (" addressed ") B, B replied. A then spoke to C, C replied. The address signals in this case were gaze and head-direction: as A spoke to B, he met her gaze, as he spoke to C he changed both gaze and head-direction, and C met his gaze. To put it another way, it was the address signals which enabled B and C to know whether or not A intended them to be the Hearer or Listener of his utterances. This is how they were able to distinguish between the " Tu " of utterance 1, and the " Toi " of utterance 3.

Patterns of consecutive codings, expressed in terms of (1) codings, (2) change of address and (3) change of first speaker, will give us discourse units of varying types, i.e. stretches of discourse corresponding to moves/exchanges/transactions, etc... In the example just given, the change of address could be said to mark the boundary between two exchanges. We are finding a close correlation between these participant states and several other very important aspects of discourse, such as topic, status, role and formality — this is exactly what one would expect, of course, but we have not been able to formalise these things before.

This concept of address also makes us face up to the problem of developing a model of discourse for groups above the dyad — groups with three or more participants. Up to now, discourse analysts have either shied away from groups of three or more participants or simply imposed a dyadic model willy-nilly on their data: i.e. they have treated group interactions as if they were a series of parallel dyads. It is significant that the one group situation where the dyadic model has been reasonably successful is the classroom. But there you have a close resemblance to the dyad: the teacher has rights which show in discourse, in particular he can choose the next speaker, the children have no choice of address, they talk to or through the teacher, not one another. Such an approach has a major disadvantage and one which has previously made analysts despair of ever handling, say, conversation; it assumes that whoever speaks next was the person spoken to, that he is "in turn". It cannot distinguish between:

A speaks to B - B replies

A speaks to B - C replies

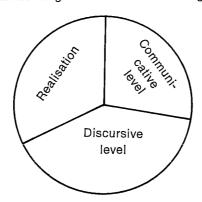
A speaks to B and/or C — B and/or C replies

Now a triadic (3 +) model **can** handle this: but — far more important — it does this not by the introduction of some purely abstract, algebraic dimension, but by integration of an observable system of behaviours, which in general, are non-verbal, i.e. the address system.

We have seen, then, that such behaviours fall into three main groups

- 1. Those which are related to content (kinematopæia)
- 2. Those which are related to illocutionary force
- 3. Those which are related to **structure of the interchange**, i.e. which are mechanisms for regulating the interaction.

Our contention, then, is that any description which omitted non-verbal communication would fail to represent or account for much which is essential. In particular, to omit Group 3 is to omit most of the interactive structure which it is the very aim of discourse analysis to make explicit. Not surprisingly, analyses which make use of the verbal component alone have proved extremely difficult, since by and large they impose on the verbal component functions which it does not have, or in which it has only a minor role: it is relatively rare to find much redundancy between (3) and the verbal component. Indeed sometimes there is none at all, and this is sufficient justification for setting up two separate "levels" of linguistic organisation [roughly corresponding to Groups (2) and (3)], which we call Communicative Structure and Discourse Structure. Our model can be diagrammed in the following way:



Realisation

The set of message-bearing elements (verbal, paralinguistic, non-verbal) in a situation. These elements have substance and are realisations of various systems and structures whose organisation can be described in terms such as class, units, structure and distribution. The textual function of such elements is described in terms of their internal relations (and without reference to the meaning they carry).

Communicative level:

Here we deal with the illocutionary forces of acts (whatever their realisation); inviting, persuading, agreeing, etc. Sequences of these give us communicative structure. There is no one-to-one relationship between these acts and units of realisation—they are not related at different levels of delicacy.

Discursive level

: At this level we describe linguistic organisation in terms of interactional tactics, turns, address, relative distribution of utterances; sequences of these give us discursive structure. Again, there is no one-to-one relationship between discourse acts and communicative acts, so that for example, the discursive act opening turn may be a greeting — "Hallo", requesting information — "Been waiting long?", apologising — "Sorry I'm late". This is why, we believe, attempts to define illocutionary acts in terms of position in the structure of the discourse are doomed to failure. Even such a seemingly position-defined communication act as "greeting" can in fact (and has been attested to) occur after a series of other acts?

This distinction between communicative and discursive acts, forced on us by the integration of non-verbal communication, throws light on a very thorny problem in the field — the problem of discursive embedding or interruptions. A simple example :

² It will be obvious that the approach to discourse structure outlined above differs radically from that of the team working at Birmingham University. [cf. Sinclair and Coulthard (1975), Brazil (1976)]. However, their work still remains the most theoretically and methodologically complete in the field, and we would like to thank in particular David Brazil, Malcom Coulthard and Tim Johns for the unfailing enthusiasm and generosity they have shown in so many discussions and for the practical and theoretical help they have given us on so many occasions.

- 1 "Would you like to come round for dinner tonight?"
- 2 "Yes I'd love to "

We can describe this in terms of inviting/accepting. But what about :

- 1 "Would you like to come round for dinner tonight?"
- 2 "What time?"
- 3 " About eight "
- 4 "Yes, I'd love to ".

To the discourse analyst who does not distinguish between communicative acts and discursive acts, this causes considerable embarrassment. If he describes this as an "interruption" or "embedding", he is admitting his failure to describe discourse as a series of consecutive communicative acts, each of which imposes constraints on the next speaker, by imposing upon him a limited number of choices. Embedding or interruption is an admission of failure — it simply is not possible to predict what will come next. But the only other option is to define, say, requesting information, by position of occurrence — a near-impossibility, because semantic problems apart, it's going to force a different definition of "requesting information" occurring after "inviting", and "requesting information" occurring after all the other acts imaginable, i.e. a different definition for each place of occurrence.

On the other hand, if we distinguish between the communicative act requesting information and the discursive act response, the problem is greatly simplified. We can describe this exchange in terms of two structures :

Communicative

- 1. Inviting
- 2. Requesting information
- 3. Informing
- 4. Accepting

Discursive

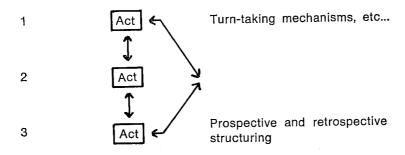
- 1. Opening
- 2. Response
- 3. Opening
- 4. Response

(Defined in terms of illocutionary force and semantic and situational features)

(Defined in terms of interactional tactics).

There is a strong temptation to diagram this thus:

Utterance



But this would imply a "tagmemic" relationship our present state of knowledge does not justify.

I would now like to turn — very briefly indeed — to the possible applications of the type of model I have been describing:

- 1. First, it seems to us that the system of address is a useful tool for the description of spontaneous small-group interactions. This means that for the first time we have found a way an extremely simple but effective way of coding utterances in conversation, for example. The implications for language-teaching starved of reliable discursive descriptions of almost any kind are most encouraging.
- 2. We are now in a position to check on a range of observations and suggestions coming from psychiatrists. For example, there has been considerable comment by psychiatrists about the fact that families under treatment seemed to show a high incidence of simultaneous talking and interruption. Our first experiments in coding though admittedly not carried out on pathological cases are again most encouraging, though I certainly do not want to claim that we can do more than accurately describe symptoms. There are also obvious applications to studies of group structure and group dynamics.

3. Since the rules for turn-taking and address clearly imply rights to the floor, the sociolinguist now has a useful tool for the description (possibly even the definition) of discursive roles and status — especially when we take into account the concepts of speaker/listener/hearer which can be considerably refined in specific situations such as parent-child interaction or immigrants at work, or in the multi-racial classroom etc. Other concepts such as "formality" and "situation" should also benefit.

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