

Ethnomethodology and Social Interaction : An Analysis of Naturally Occurring Conversation in English as a Second Language.

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Abstract

This study, entitled “Ethnomethodology and Social Interaction:An analysis of Naturally Occurring Conversation in English as a Second Language” is an ethno-methodological analysis of spontaneous linguistic interaction. It aims at accounting for the orderly and coordinated nature of interaction, and by so doing, illuminating how participants themselves order their interactions and to make sense of their interactive activities. The datum used for the study is a recorded informal conversation among teachers of Nnodo Secondary School Abakaliki, Ebonyi State, Nigeria The data was transcribed and analysed paying attention to turn and turn - sequencing, adjacency pairing, topic change and management, discourse opening and closing and so on. Our findings show that turn - change, turn - distribution and turn - sequencing, together with the environment of other turns, are ordered by abstract rules which create different structuring possibilities that are realizable in particular interactive situations by the participants involved in the interaction. Our findings also show that the course of interaction is also wholly managed jointly and locally by the participants who plot its course turn by turn.

Key words: *Ethno- methodology, Conversational analysis, Turn-taking, Turn-sequencing and Adjacency pairs.*

Introduction

As social beings, humans spend much of their lives talking or interacting with one another. Interaction is not just a mechanical process of taking turns at producing sounds and words, it is a mode of exchange among participants. In other words, it is individuals' speech and not merely the verbal expression of actors that is known as dialogue. As Gadamar observed, 'dialogue belongs not to the sphere of the *ō* but to the sphere of the *we*' (65). This implies that it requires the agency and involvement of at least two participants who communicate through the medium of language. In fact, much of our everyday lives are conducted through the medium of naturally occurring talk-in-interaction-conversation. This essay therefore takes it for granted that naturally occurring talk-in-interaction-conversation is among the best illustrations of a dialogue.

Surprisingly and interestingly, despite the general agreement in linguistic circles, on the primacy of speech in language study, relatively very little linguistic research has been carried out into this variety of English (Spontaneous informal conversation).

Until, very recently, most of the advances in conversational analysis had been made by a break-away school of sociology, known as ethno-methodology, of whom Harold Garfinkel, Harvel Sacks, Schegloff and Jefferson were the most influential (Jaworski and Coupland 2002 :118) Members of this school questioned the traditional method of sociological investigation of the use of questionnaires and the like which tended to draw the analyst away from the lived stuff of social reality. They therefore proposed alternative methods which focus on common-sense knowledge of the methods used in actual social interaction and this is known as ethno -

methodology. According to Jaworski and Coupland, ethno - methodology means studying the link between what social actors do in interaction and what they know about interaction. To (Herritage 1984 :98), the ethno -methodologists have been basically concerned with how to make explicit and conscious, the social actors' knowledge about their everyday interaction and by so doing, find an understanding of how society is organized and how it functions . Herman has summarized it as follows:

in the analysis of conversation, the data used are recorded interactions of everyday life which are scrutinized for the regularities that occur and the mechanisms that underline such regularities. Rules to account for the orderly and co-ordinated nature of spontaneous interactions are constructed. These rules are seen as those which the actors themselves are using to order their interactions and to make sense of their interactive activities. (77)

We can deduce from

described as a form of order, and that order is partly achieved through talk, which is itself structured and orderly. In their efforts at building human society, Scheloff and Sacks have paid attention to orderliness in conversation. According to them, "if the materials (records of natural conversations) are orderly, they are so because they have been methodologically produced by members of the society for one another" (25) . To put this in other words, conversational analysts are not supposed to impose orderliness into conversation, rather as (Opara, 2011:25) has observed, the orderliness is produced by the participants themselves and that is the essence of conversational interaction .

Defining Conversation

The term conversation, in the framework of conversational analysis, can be varied and open-ended as scholars differ in their definitions and delimitation of the scope of the term. Levinson for example, opts for a narrow definition:

conversation may be taken to be that familiar predominant kind of talk in which two or more participants freely alternate in speaking, which generally occurs outside specific institutional settings like religious services, Law courts,

The above definition restricts the term to the trivial chit-chat. To some scholars Sinclair and Coulthard, however, the term is best regarded as a technical term covering a variety of forms of spontaneous social interaction in a speech community which includes institutional settings like courtrooms, classrooms and boardrooms.

In this study, the preferred definition of the term is that which is less inclusive, relatively informal and natural; that is, conversation between educated people. Following the reasoning of Crystal and Davy, this is without doubt the most commonly used kind of English, and consequently, the most familiar variety to the vast majority of English speaking people (96). This is because we find ourselves making use of this variety on daily basis as we concretise our realities as social beings.

Turns Sequencing and Conversational Structure.

Conversational analysts' view of interaction is structural, such structure is the adjacency pair a sequence of two utterances, which are adjacent, produced by different speakers, ordered as first part and second part, and classified, so that a first part requires a particular second part or range of second parts (Schegloff and Sacks 295). This is premised on the relatedness of the utterances; not any second part can follow any first part but must be an appropriate one: the first part often not only selects next speaker but also the next action. According to Herman, Adjacency pairs of which summon-answer (S/A), question-answer (Q/A), greeting-greeting (G/G), comment-comment (C/C) are instances of tied pairs of utterances and ordered such that the other will follow in the next turn (84).

The above observation by Herman entails that the use of a question presupposes or requires an answer, the use of a greeting raises an expectation of a reciprocal greeting and so on. The absence of the second part of the pair when the first has been uttered is thus both noticeable and obvious given their conventional ties. Thus, adjacency pairs are organized patterns of stable, recurrent actions that provide for, and reflect order within conversation. Sociologically, they are

important in that they provide a normative framework for actions that are accountably implemented. Linguistically, their importance is that they provide an environment in which inferences about relevance can be assigned across utterances. (Schiffrin, 1994 :236) gives the example of a summon-answer (S/A) sequence, ða telephone ring is a summon which opens a conditional relevance ðforö a second part of a sequence, an answer. When an answer is not forthcoming, it is heard as obviously absent such that a summon can be re-issued and/or an account rendered for its absenceö. Thus, the summon-answer adjacency pair not only has a structure in and of, itself, it also provides for coordinate entry into an orderly exchange of turns within the conversation opening. Also, conversational closings depend upon two-part sequences that provide for coordinated exit from turn exchange within conversation (Schegloff and Sacks:295-6).

Thus, in a very basic sense, adjacency pairs are the basic structural units of conversation. They are used for opening and closing conversations;

A Good morning, Sir!

B Good morning .

A Bye for now John.

B Bye .

They are also very important as they are used for operating turn taking by enabling a speaker to select a next action and a next speaker in order to avoid gap and overlap in conversation.

Apart from the structures where strict linear adjacency is observable, there are also cases of embedding, whereby one pair occurring inside another. (Schegloff, 1972 :75) calls these embedded pairs: *insertion sequences* . Also, Herman has explained this phenomenon that:

In contrast to a structure of a basic Q/A adjacency pairs as in the following:

Q What time is it?

A Six fifteen.

We can also have others which involve various depths of embedding, as in the example below:

Q1 May I have a bunch of flowers, please?

Q2 which one?

A2 The yellow one.

A1 Here you are

The longer sequence in the second example protracts the QA structure into a QQAA structure so that the original Q1 is completed by its relevant A, via another adjacency pair Q₂ A₂. (84)

Different linear patterns can be constructed depending on the depth of embedding that occurs which also goes to show how interactive businesses are practically carried out in their turn-by- turn construction. In these cases, the adjacency tie does not disappear since *conditional relevance* (a condition of coherence that ensures the relatedness of intervening parts or sequences of an interaction, by the first parts setting up expectations which the second parts or the next speaker fulfill) still holds across the intervening turns till the second part of the pair is performed . Thus the intervening parts are still regarded as belonging to the same interaction even though more turns are expanded than strict adjacency pairing would permit.

Other forms of sequential organization have also received fair attention. An instance of this is *Preference Organization* which has been considered by scholars like Pomerantz, Atkinson and Drew, and Levinson. This is a concept that was established to account for cases where a unique second part is not available in an adjacency pair and the second part of the pair bifurcates to provide to provide options which could be preferred or dispreferred as the case may be. They thus proffer a psychologically based distinction between *preferred (unmarked) and dispreferred (marked seconds)*. For instance, an offer or invitation provides an alternative or options which may either be accepted/preferred or refused/dispreferred. The preferred option for an invitation would be the acceptance which is both socially desirable, and linguistically simpler

in design, hence (unmarked) the dispreferred option, the refusal, is socially negative and is also more complex in its realization which marks it out.

The following examples from Atkinson and Drew illustrate the structural complexity of dispreferred seconds:

A: Why don't you come up and see: me some // times

B: [I would like to

C: Uh. If you'd care to come and visit a little while this morning. I'dl give you a cup of coffee.

D: Hhehh!! Well that's awfully sweet of you. I don't think I'dl make it this

(Delay Marker) (appreciation marker) (Refusal)

Morning, I am running an ad in the paper and í

(Account). (58)

;

Levinson summarises this when he observes that dispreferred seconds, are distinguished by incorporating a substantial number of the following features. Delays: well í hehh .., hedges or elaborations, prefaces: (The use of apologies, appreciations etc), accounts, and declination component etc. (307).

In the same vein, if comments call forth comments, and where comments are assessments, the second part may either agree or disagree with the first part and disagreements are also complex in their constructions.

Thus Schegloff and his team posit that preference organization is a very powerful concept that can be used to explain the conversational phenomena such as repair mechanism or initiation, preambles, pre-request, pre-invitation and pre-terminal.

The Data

In gathering the data for this study, we followed the example of Crystal and Davy's surreptitious recording (1966), in which the participants in conversation are not aware that they are being recorded. The recording was later transcribed in a way that we believe as faithful to the spontaneity and informality of the talk. The data was recorded informal conversation among teachers from Nnodo Secondary school, Abakaliki, Ebonyi State, Nigeria. The conversation took place on January 9th, 2012, the day government schools in Ebonyi state, one of the states in South-East Nigeria, re-opened for the second term, 2011/2012 session.

The topic of the conversation was the nationwide strike embarked upon by the Nigerian Labour Congress (NLC) and other affiliate unions over the ill-timed removal of oil subsidy and the subsequent martial broadcast by the Ebonyi State Governor, Chief Martin Elechi, threatening to stop the salary of any worker who fails to go back to work. The newsworthiness of this topic is reinforced by the track-record of the Ebonyi state governor in similar situations in the past. In fact, as at the time of this conversation, the teachers were still owed their September, 2011 salary, which was withheld during the last nationwide strike by teachers. Thus, these teachers, now arm-twisted to go back to work, are now left to talk over their plight.

The Text:

Ariom: (1) Good morning Sir !

Mr. Okonkwo (2): Good morning

(3): How are you?

(4): Fine!

(5): What is your take over the September salary?

(6): Any news?

Ariom (7): The September salary is a foregone issue?

(8): We are not expecting the money

Ukeni (9)

No! it's impossible!

If Elechi (Governor) doesn't pay, it will be paid.

Ariom (10): (Laughs) Anyway, that is faith.

Pat (11): is it Good luck (president) that u pay it?

Uche (12): They must pay.

(13): Local Government workers have received that
September salary.

(14): why should ours be different ?

Ukeni (15):  Listen! Listen! Every

money has been signed by him (the governor)

It is already in the ministry

(16) Our September salary is with the board.

(17): Elechi is not owing anybody as per salary

(18) O hanwa mara ihe ha na pito (it is the sycophants
that know how they are messing things up)

Ede. (19): Why can't he give directions?

Pat (20): He may not know!

Ukeni (21): Who may not know

Pat (22): Governor Martin Elechi

Ukeni (23) You cannot spoil something and you want to repair it
again.

(24): They're the ones who convinced the governor not
to pay us.

(25): The perm sec. preached him not to pay us.

(26): They should go back to the governor and plead with him for us, for him to temper justice with mercy.

Uche (27): Forgive them and give them the money

(28): Is it beyond remedy?

Ukeni (29): NUT is our major problem.

(30): They are not representing us will.

(31): They are not representing us well.

Arion (32) Not well, they are not representing us at all.

Pat (33) Yet they collect our money every month

(í)

Ariom (34) Uche! The current issue is now the removal of fuel subsidy.

(35) What is your opinion?

(1.5)

Uche (36) Um! Umh!! Why did you direct the question to me?

(37) Removal of subsidy to me is an approach by the president to fight corruption in the downstream sector, but unfortunately, the action has brought untold hardship to the poor masses especially in the area of transportation and food.

Ariom: (38) Well! hehh! That's entirely your opinion. For me I don't see it that way but that will wait for another time.

Ukeni (principal) (39) Hello teachers

Teachers (40) Hi ma

Ukeni (41) My fellow colleagues, let's stop the chatting and enter the classes to teach no matter how few the students are.

(42): Today being the first day in school, supervisors are likely to come.

(43): Thank you as you comply.

Teachers (in groups) (44): Later now!

Transcription Design

The following is a synopsis of the transcription design, adopted for this work. The transcription in this study follows the example of (Jefferson, 1979: 425) and the following notations are noteworthy :

1. Overlapping utterances

When overlapping utterances do not start simultaneously, the point at which an ongoing utterance is joined by another is marked with a single left-hand bracket, linking an ongoing with an overlapping utterance at the point where overlap begins.

Tom: I used to smoke a lot

Bob: I can see that you are tough.

This means that by the time Tom said the last two words of his sentence, Bob has begun his own sentence.

2. Intervals within and between utterances are timed in tenths of a second and inserted within parenthesis, either within an utterance or at the end.

Oriom: I said, give me the gist

(1.8)

Joe: Are you talking to me?

3. Silence is indicated with three dots (í) inserted within parenthesis.hg
4. Fillers: Umm, (doubt) eh eh.

Analysis

The analysis done in this study is based on three basic assumptions of conversational analysis; Heritage has listed these three assumptions as follows:

- a. Interaction is structurally organized
- b. Contributions to interaction are contextually oriented
- c. These two properties inhere in the details of interaction so that no order of detail can be dismissed *ñaprioriö* as disorderly, accidental or irrelevant (241).

Over the years, conversational analysts have studied different aspects of talk and demonstrated their relevance to the management of natural conversation by participants. Aspects such as particles have attracted both Heritage and Pomerantz, error correction has interested Jefferson while laughter has received the attention of Thompson. Following the declaration of Levinson that òthe aim of CA is not simply that some aspects of conversation can be viewed as being structured in a particular way but also that actually they are so conceived by the participants producing itö (318), this study is ascertaining how participants in talk construct systematic solutions to recurrent organizational problems in conversation such as: turn-taking, opening and closing, repair, topic management, speech sequencing, information receipt etc. The solutions to such problems are discovered through paying close attention to how participants themselves talk and to what aspects of talk they themselves attend to.

A text is an interactional discourse among individuals who may be colleagues or workmates that consider themselves co-conversationalists. It has an opening which is realized with a ðgreeting sequenceö (Coulthard, 88) suggests that greetings are close to being universal in conversation and their non-occurrence is always noticeable which further suggests that conversationalists feel they are almost invariant features of conversation. The greeting sequence in our data is in form of a modified pairwise system whereby a pair can be extended before its initiation, after its completion, or even during its creation. Consider the pairs 1-4 in our data:

- | | | |
|--------------|-----|-------------------------|
| Ariom | (1) | Good morning Sir! |
| Mr. Okonkwo: | (2) | Good morning! |
| | (3) | How are you (extention) |
| Ariom: | (4) | Fine |

In this example, the first pair, greeting-greeting (G/G) 1 and 2, creates another pair after its completion in 3 and 4.

Coulthard has also observed two important features of greetings in conversations. First, they occur at the very beginning of a conversation, and cannot be done anywhere else in the conversation. Secondly, they usually allow all the speakers a turn right at the beginning of the conversation. For instance the ðgood morningö said by Ariom at the opening (text 1) could have been responded to by all other participants apart from Mr Okonkwo. However, conversation between two people who do not consider themselves co-conversationalists, as in the case of strangers; or others who are not in greeting terms, do not open with a greeting

Following the opening sequence, the conversation consists of a topic. Conversations tend to begin with a topic which is the reason for the encounter. In conversational analysis, topics are what users construct via their formations within a discourse context, which they maintain via mutual orientation to a common point of reference to which utterances contribute. Topics are rich resources for conversationalists and may be chosen from the immediate context of the

utterance, from memory, from the preceding part of the conversation, from other conversation and so on.

The topic in our data, was introduced by Ede through an initiation question: What is your take over the September salary? Any news?

Topic introduction in a conversation generally assumes that it is newsworthy or tellable. Sacks and his fellow writers opine that contributions are analysed in terms of why that now and to me and where the criterion of tellability is not met, talk can fall flat (72). Talk may also drift from topic to topic in a stepwise transition without threat of dislocation.

The topic in our data satisfies the criterion of tellability and was also chosen from the immediate context of the conversation. The issue of unpaid September salary was an issue that affected every teacher and parent in Ebonyi State during that period and also an issue in which every teacher will want to have an update on as in the case of the conversation initiator Ede. The initiation device adopted by Ede in sequence (5) serves to project the sequential organization of turns usually formed in conversation. It serves as a preamble to something else to come, which in turn, serves to bring the interactive and responsive structure of the conversation into being. One of such sequential organization which plays itself out in a pairwise system is preference organization which Herman explains as the preferred option for an invitation would be the acceptance which is desirable, but the dispreferred option- refusal is a socially negative act (86).

In the data, the initiation device attracted a sequence of comments from participants who strived to express their divergent views all of which are based on their assessment of the situation. Expectedly, comments call forth comments, and where comments are assessment or evaluated, the second parts may either be agreement (preferred) or disagreements with the first part. It is this sequence of comments that protracted and sustained this conversation. For instance, Ariom in slots 7 and 8 is pessimistic that the money will not be paid given the track records of the State Governor- Martin Elechi while Ukeni, (the vice-principal Administration) and Uche, in slots 9, 12, 13 are optimistic that the money will be paid. Ukeni's optimism is probably borne out of his status and designation as a member of management. In (15), Ukeni

exhibits his superior or + higher status by 'self-selection' which triggers off a speech overlap which only stopped when the current speaker-Uche yielded the floor to him.

The code-switching in (18) by Ukeni locates the context of the discourse and foregrounds the characteristic informality of conversational English. 'O hanwa ma ihe ha na pito' is a colloquial Igbo language idiom which has been merged with standard English within sentence boundary. The use of code-switching here serves to establish and maintain mutual orientation with other participants. Such mechanisms reveal the built-in collaborative nature of conversations

Slot (21) illustrates an embedded sequence which Jefferson labeled as 'side sequence' which was necessitated by a kind of misapprehension by an interlocutor (88). This is usually the case when the general drift of a conversation is halted at an unpredictable point by a request for clarification. Such side sequence begins with a 'questioning repeat' or an interrogative item indicating that there is a problem in what has just been said. Slots 20, 21, 22, illustrate this feature.

Pat: He may not know *o statement of sorts*

Who may not know *o misappropriation of sorts*

Governor Marthin Elechi *o clarification.*

Jefferson labels such structures as 'misapprehension sequence' (88) and says they have a three part structure: a statement of sorts, misapprehension of sorts, and a clarification of sorts.

Slot (34) of the data: Uche! The current issue is now the removal of fuel subsidy, illustrates the use of misplacement markers by participants to signal their imminent departure from the current topic or focus of talk. It is used here as a means of mutual orientation to signal to other interlocutors that what is about to be said must not be linked to the immediately preceding topic.

Slot (34) also illustrates two other conversational management strategies next 'speaker selection' and 'topic change' as shown below:

Ariom (34) Uche! By the way, the current issue is now the removal of fuel subsidy.

The silence between slots 33 and 34 is interactively significant, in that, it functions as a point of transition between one topic and another topic or a new one. Structurally, it functions as a gap or closure of that segment of the interaction. Therefore options to talk, when used, create continuity of speech, but the refusal of such options is also permitted and has the effect of generating a kind of semantics of silence. Silence, thus has a structural place in speech exchange as responsive activity. Sacks et al classify non-speech into: lapses, pauses and gaps according to their placement in the turn and the exchange.

The endings of conversation are things that have to be achieved as speakers do not just stop speaking. Conversation usually ends with closing sequences which themselves often come after pre-closing sequences. Closing of talk have its own characteristic structure and since talk has to be brought to a close, it has to be interactively achieved with both parties agreeing to close talk and by so doing, commence a process of disengagement. Herman proposes a four-part structure comprising a pre-terminal pair before the conventional leave taking pair like bye-bye or some such is undertaken (86). The pre-terminal pair, just like pre closing sequences, not only signal the incoming closure, but also provide opportunities for any unfinished business to be attended to if necessary before talk is concluded.

In our data, the closing is achieved by the use of greeting/greeting pair exchanged by Ukeni (the vice-principal administration) and the rest of the teachers in slots 39 and 40. This pair sequencer functions as pre-closing or pre-terminal pair which is used to interactively, bring the conversation to a close. And in slots 41-42, Ukeni tries to lure his colleague to mutually agree to enter into the process of disengagement. To do that effectively and collaboratively, the pre-closing sequence has to be in the form of statements which present the reason and probably the justification for the disengagement: Again, the use of this strategy foregrounds the collaborative and contingent nature of interaction in conversation.

Finally, slots 43-44 function as closing sequences which in conclusion bring the conversation to an interactive close.

Conclusion

This paper has tried to examine the way participants in a conversation construct systematic, specific, and context-dependent solutions to recurrent organizational problems of talk. Such solutions can only be discovered through paying close attention to the sequential progression of talk. The existence of these problems and the need to proffer solutions to them have been the major goal of ethno-methodological enquiry which arose from the search for members knowledge of their own affairs; knowledge that reveals and produces a sense of order and normalcy in everyday conduct_(including conversation).

Our data reveal the co-operative and collaborative nature of interaction in conversation. Also revealed is the fact that conversation is a dynamic, contextualized and particularized accomplishment undertaken and achieved by the participants' engagement with each other by the use of turn-by-turn and counter-turn pattern of exchanges which may be examined in terms of the way the participants manage themselves, each other and the situation with in the contingencies of its making.

The paper concludes that the study of naturally occurring talk goes further than the content of the linguistic form alone. Such features as turn-change, turn-distributions, turn-sequencing, topic management and so on, are as important as content when talk is considered as interaction.

Ultimately, this study is significant as it throws more light into conversational discourse and becomes a valuable addition to materials in conversational pedagogy whose ultimate goal is to acquaint users of language with the knowledge and skills of structural and discourse features of conversation.

WORKS CITED

Coulthard, Malcom. *Introduction to Discourse Analysis*. London and New York: Longman, 1977. Print.

Crystal, David and Derek Davy. *Investigating English Style*. New York: Longman, 1969. Print.

Gadamer, Harris J. "Man and Language." *Philosophical Hermeneutics*. Ed. Gadamer Harris Berkely: University of California Press, 1986. 211-236 . Print.

Herman, Vinala. *Dramatic Discourse: Dialogue as Interaction in Plays*. London and New York: Routledge, 1995. Print.

Heritage, John. *Garfinkel and Ethnomethodology*. Cambridge: Polity, 1984. Print.

Jefferson, Gail. "A way for Inviting Laughter and its Subsequent Acceptance/Declination." *Everyday Language*. Ed. Psathas G. New York: Irvington, 1979. 79-96. Print.

Joworski, A. and Coupland N. "Perspectives on Discourse Analysis." *The Discourse Reader*. London: Routledge, 1999. 150-185. Print.

Levinson, Stephen C. *Pragmatics*. Cambridge: Cambridge University Press, 1983. Print.

Opara, Susan. *Topics in Discourse Analysis*. Owerri: Gabtony and associates Ltd, 2011. Print.

Osisanwo, Wale. *Introduction to Discourse Analysis and Pragmatics*. Lagos: Fetop Publishers, 2003. Print.

Pomerantz, A. "Agreeing and Disagreement with Assessments: Some Features of Preferred/Dispreferred Turn Shapes." *Structures of Social Action*. Eds. Atkinson and John Heritage. Cambridge: Cambridge University Press, 1984. 57-101.

Sacks, Harvel, Schegloff Emmanuel and Jefferson, Gail. "Simplest Systematics for the Organisation of Turn-Taking for Conversation." *Language*, 50: 1974 696-735.

Shchiffrin, Deborah. *Approaches to Discourse*. Oxford: Blackwell Publishers, 1994.

Schegloff, Emmanuel and Harvel Sacks. "Sequencing in Conversational Opening." Eds. J.J. Gumperz and Dell Hymes (eds). *Direction in Sociolinguistics: The Ethnography of Communication*. New York: Holt Rinehart and Winston, 1973. 346-380.