# THE SECOND LANGUAGE TEACHER AS DISCOURSE ANALYST

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Discourse is coherent expression, written or spoken, beyond the level of the sentence. Approaches to theories of discourse are currently emerging from various orientations: sociological/ ethnomethodological (e.g. Goffman 1964; Sacks, Schegloff, and Jefferson 1974); sociological/ethnographic/sociolinguistic (e.g. Hymes 1964, 1967, 1972; Labov 1970; Halliday 1973); psycholinguistic (e.g. Hatch 1978; Peck 1978; Larsen-Freeman 1977); and rhetorical/linguistic (e.g. Crystal 1969; Selinker, Trimble, and Trimble (1976).

Second language educators, especially in Great Britain, have begun to explore the implications of some of this research, particularly that in the sociological/ethnographic/ sociolinguistic framework, for second language teaching (see Coulthard 1975 for an overview) and have developed some teaching materials which draw on analyses of discourse. But, in every case, so far as I can tell, the discourse analyzed is that which takes place under very specific circumstances--such as pupil-teacher discourse in the elementary classroom, doctor-patient discourse in consultations, the prose of physical science textbooks, seminar discussions in a university setting--and the teaching materials are designed for learners who expect to be participating in such specific kinds of discourse. (See Widdowson and Allen 1974 for characterizations of some of these materials.)

The question arises as to how a language teacher who has no

materials designed for the specific communicative needs of his or her students--who may in fact have students representing a variety of specific communicative needs and who hence wishes to work with them in more generalized contexts--can help those students to communicative competence as reflected in the use of language in discourse. And though "thresh old level" materials may eventually appear, there still remain learners beyond that level.

Candlin (1976a:252; 1976b:xiii), noting the "indeterminancy of discourse," has pointed out that the language learner needs to become his or her own discourse analyst, talking about what is going on and why, in a communication situation, between people and between utterances, in order to become sensitive to the many variables that interact in complex ways to convey both referential and social meanings. I would suggest that the language teacher, too, needs to become a discourse analyst, not only to teach with expertise the discourse-oriented materials that may have been created but also to use authentic discourse at hand as instructional material.

My purpose in this paper, then, is to demonstrate how a teacher can record authentic discourse and then analyze it and use it as instructional material. I will first describe for you two classroom discussions that I recorded for such purpose. Then I will briefly discuss three of the issues that are related to the teaching of communicative competence. Finally, using the two classroom discussions as examples, I will suggest some preliminary and programmatic instructional procedures for the use

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of authentic materials.

Because the non-native speakers that I have been working with are graduate and undergraduate students with a variety of academic majors, I decided to focus on a communicative event of wide occurrence both in and out of the classroom--the focussed discussion--using a topic of general interest in a problemsolving format. The students participating in the two discussions were in the one case non-native speakers and in the other native speakers. The non-native speakers were in an intermediate class in listening comprehension, all with TOEFL scores in the 500s; the native speakers were graduate students, all working for an MA in ESL.

The tape of the native speaker discussion is intended for presentation as an example of native speaker communicative interaction. It is desirable to have such a tape transcribed and the tapescript available to the non-native speakers for discussion and analysis. The tape of the non-native speaker discussion is intended to be discussed and analyzed on the wing, by those involved in it either as participants or audience. It is not intended, normally, to be transcribed. It is here transcribed and the tapescriptis in the Appendix, along with the tapescript of the native speaker discussion, for the information of the readers of this paper. The two counterpart discussions that I am using are, of course, examples only. A teacher would need to select a communicative event and a topic appropriate for his or her own students.

The two discussions took place as classwork, though a native speaker discussion could just as well be taped in other

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settings. In each class all the students were presented with the following statement and asked to indicate one of four reactions to it: "The most important energy source for the future should be nuclear power." The four possible reactions were SA (Strongly Agree), AS (Agree Somewhat), DS (Disagree Somewhat), and SD (Strongly Disagree). You may recognize this as an adaptation of a values clarification exercise (Simon, Howe, and Kirschenbaum 1972).

In each class, after the students had had some time to think silently for a few minutes about their ideas, four who represented as wide a spread of opinion as available, but otherwise chosen at random, were asked to spend 10 to 15 minutes in discussion of the topic. Their only instructions were to try to make their ideas clear and to understand the ideas of others. They sat around a table with a microphone in the center and proceeded as they wished.

In describing each of the two discussions for you, I will, to begin with, summarize it. Then I will characterize two of its discoursal aspects: first, the way that the participants managed the discussion--how it started, how it progressed, how the parts were tied together, and something about how it ended--though since the discussions had a time limit they ended somewhat arbitrarily; and second, the roles that the participants assumed relative to the topic, that is--if Schegloff's concept (1971 in Giglioli 1972: 107-109) can be adapted here--how the participants "membershipped" themselves and each other relative to the topic.

These characterizations will be partial, tentative, and informal. I am concerned with exemplifying the kinds of observations that a busy classroom teacher can make about oral discourse of this kind, which, because it is spoken communication, in process,

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at the hands (tongues?) of more than one person, reflects ways of linking utterances different from the ways found in written discourse, and which, though primarily ideational in content, also conveys social meanings, as language in use always does.

First, the native speaker discussion--two women and one man talking for 13 minutes. All were about the same age. One was an SA (Strongly Agree), one an AS (Agree Somewhat) but leaning toward the negative side, and the third a DS (Disagree Somewhat) leaning toward SD (Strongly Disagree). The fourth person did not participate, for a reason that will be explained later.

Here is a summary of their discussion:

The AS and the DS make the following objections to using nuclear energy as the chief energy source in the future: (1) waste disposal is a problem--it is long-lived and dangerous and even with breeder reactors, which will recycle what is now waste for fuel, the material will be highly fissionable and very dangerous; (2) the temperatures required to produce the energy are too high; and related to (2) is (3) the amount of energy produced is excessive, more than we need.

The SA answers these objections by saying that the problem of waste disposal will be taken care of by breeder reactors, that the problems attendant on breeder reactors can be solved by adequate financing to provide proper control of plant design and operation, and that the amount of energy produced is not excessive for future needs.

The AS's recommendation is that we concern ourselves with present needs and use solar energy. Both the SA and the DS say the use of solar energy is problematical, the SA pointing to problems with weather patterns and the DS to problems with collection and storage. The DS continues to express concern over the dangerous materials, both the waste from present reactors and the fuel to be used by future breeder reactors. The AS and the DS are both concerned about the problem of human error in the use of nuclear energy.

The AS returns to the point that nuclear power provides more energy than we need. There is some discussion by the DS and the SA on whether or not an economy should continue to grow if it requires what is in the DS's opinion unsafe power, but which in the SA's opinion is safe power, except for the possibility of sabotage. At the end of the discussion the DS suggests that people should not leave all the responsibility for overseeing the use of nuclear energy to official authorities such as the Atomic Energy Commission but should take responsibility themselves. The SA agrees, suggesting a civilian committee of engineers.

Now, how did the participants manage their discussion. (Here and throughout, where I quote from a discussion or refer to it, I will indicate the line number from the tapescripts in the Appendix.)

The native speaker discussion opened with general laughter, a kind of "well here we are what do we do now" kind of laughter. The DS started talking because, he said, he felt that he should make his position clear, since he was the only one who had stated an opinion at the negative .end of the scale. A contributing factor might have been that he was the one sitting on the side of the table facing the other class members, who were present as audience.

There were two exchanges between the DS and the SA, with the latter responding to objections of the former, before the AS got her first chance to speak. The speaking turns during about the first third of the time were relatively long, with no interruptions. After that, turns became shorter, and all three did some interrupting and overlapping of each other. In cases where the content of one turn was not a direct follow-up of the preceding turn, there was a "restarting" clue. For example, at one such time the DS said "Well getting back to the nuclear energy problem uh, it seems to me...." (79)

There was some repetition of arguments, but not much, and some cross-referencing to earlier points as they came to be relevant to what was said later. For example, towards the end, when the DS expresses his doubts about fail-safe systems, the AS says "And that's back to waste- you talked about the waste disposal." (118)

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The participants seemed to have a common interpretation of the topic and related what they said to what the others were saying. Some of the expressions they used to begin their speaking turns were: <u>But; But see; Well; Well see; Yeh well; No no; I</u> <u>dumno I also think</u>. And though they stopped because of the time limit, they seemed ready to do so and they stopped on a note of relative agreement: that the responsibility for monitoring the use of nuclear power for energy should have a broader base than it has now.

As far as the "membershipping" of the participants relative to the topic is concerned, there were a number of clues.

The SA speaks with authority, though her intonation is more modest than her content despite the fact that she places heavy stress on key words more often than the other participants. She says: "Well if you know anything about the future then you know that the next phase...is what they call a breeder reactor...." (17) She makes reference to "...future plans for breeder reactors, at least the ones that, I've read about in magazines...." (32) Several times she begins her turns with "No, no" (92, 132, 146). She says: "But see, I know that the one...made by combustion engineering has an automatic shutdown...I've seen the shutdown demonstrated...." (104-111).

The DS, who quickly recognizes the SA's greater experience, disclaims any technical knowledge. He says: "Uh I yeh I don't know anything about breeder reactors except...." (24). In connection with the discussion on the economy, he says: "This gets into all kinds of areas I don't know anything about but...." (176)

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Also he says: "...maybe it's just a gut feeling but...." (137) The AS, too, disclaims any expertise. She says: "I'm not too well acquainted with it but...." (39) She appeals to the authority of others: "But a lot of people disagree with- and say that is is- even with cloudy days there's plenty of solar power...." (61) She appeals to universal truth: "There's <u>always</u> error, there's always human error." (118) She makes reference to the movie China Syndrome (130).

Let me quote what is said at the point at which the SA reveals that she has seen shutdowns demonstrated (115-117):

B(DS). OK. Yeh.

(General light laughter)

B(DS). Uh.

(More light laughter)

B(DS). Please take your turn.

(Stronger laughter)

The DS feels out of the SA's league. So he jokingly suggests what is the opposite of the truth: that he and the AS have so much to say that they need to take turns. In fact, the reason that the fourth person did not speak at all was that he felt too ignorant in comparison with the others, especially the SA.

A piece of information that I have withheld so far, which is information that none of us involved in this taping session knew about until it was over, is that the SA's father is a nuclear engineer.

Let us turn now to the non-native speaker discussion--three women and one man talking for 15 minutes, two from Japan, one from Thailand, and one from Hong Kong. The spread of opinion was

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not great: three were ASs, agreeing somewhat, and one was DS, disagreeing somewhat. The three ASs were graduate students, all about the same age; the DS, an undergraduate, was younger.

Here is a summary of their discussion:

All four feel that it is necessary to use nuclear power because of the scarcity of other energy resources.

Of the three ASs one talks primarily about the political aspects of nuclear energy, particularly its potential use for war, though she also notes the expense of nuclear energy and agrees that research is needed to develop it along satisfactory lines.

The second AS is concerned about the danger of nuclear energy, though he expresses confidence in scientists, and he believes that nuclear energy, because it is in fact being used, is safe. In connection with the possibility of its use for war, he thinks that we must be idealistic and continue our study of it.

The third AS would prefer to see the use of solar energy but recognizes that it is not strong enough and is very expensive to collect. She makes the point that though nuclear energy is expensive in the beginning, in the long run it will be cheap. The others agree with that. She says that research is needed on waste disposal problems because it is the waste, not nuclear energy itself, that is dangerous. She thinks that if scientists can develop nuclear power, they should also be able to cure sickness caused by its waste.

The lone DS objects to the qualification expressed in the statement by the word <u>chief</u>. She believes that it is necessary to use nuclear power but not as the <u>chief</u> energy source. She believes that nuclear energy is very dangerous and that there might even now be new diseases developing in people that won't turn up for many years. There might now be people that will die of these diseases even though by the time they die the scientists may have solved the problem.

In this summary, I have not followed exactly the order of the discussion; I have consolidated into one place ideas that came from different parts of the discussion.

How <u>did</u> this discussion proceed? The person that talked first was one of the graduate students, a woman. She was an AS and is the one who introduced the topic of war and peace in her opening turn and returned to it later, at which time the DS tried

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twice to discourage that topic as irrelevant, saying: "But right now the topic is only about chief energy, nothing to do with war or peace." (58) And a little later: "But...it's nothing to do with war or peaceI think." (67) But the AS responded that most people seem to associate the word <u>nuclear</u> with war (68-71), apparently justifying her continuing focus on the topic in this way.

The first four speaking turns were taken in order by the four participants. Then, after a short pause, the same AS that had started the discussion introduced the topics of expense, politics, and war as related to nuclear power. The two latter topics were briefly followed up by the DS and one of the ASs. Then, after the DS had twice pointed out the irrelevance of war and peace to the topic at hand, the group turned to discussing the need for nuclear power and the greatness of the expense. At the end, the discussion moved to the lack of other energy resources, the dangers of radiation, and the need for research.

As with the native speakers, the turns were longer during about the first third of the time. After that they were shorter with interruptions and overlappings.

Very often the speakers did not "take off" from what the preceding speaker had said. Sometimes one speaker would acknowledge that the preceding speaker had said something by saying "Yeh"(e.g. 52, 61) and then go off on a new tack. Sometimes a speaker started on a new tack by using "You know" as a preface (e.g. 72, 115). Agreements were usually prefaced with "Yeh" (e.g. 79,82), differences in approach or opinion with "But" (e.g. 97, 135), and qualification with "Yeh but" (e.g. 68, 81, 89).

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In one case one of the ASs disagreed with the DS by saying "I don't think so" in the following context (138-146):

- M(DS). You know they are- still trying like, right now the country is still tr- trying to improve, it it didn't say it's safe enough.
- (). Umhun.
- H(AS). I don't think so.
- M(DS). You think the-
- H(AS). If you have- enough preparation, for starting uh nuclear power maybe, it safety. Because in fahhct they have uh, nowaday, we have uh uh nuclear energy yeh/ /M. Umhmn.7 so there someone admit, so maybe some so- someone admit uh that uh it's uh safetysafe. Yeh if we have enough prepare, preparation/

The AS means that he doesn't agree, not that he doesn't think so.

As with the native speakers, the ending of the discussion was imposed by the time limitation, but the participants seemed ready to wind up. As they approached the end of the time the DS and two of the ASs produced longer utterances which seemed to summarize their main ideas.

As for their "membershipping," none of the four laid claim to any expertise. One, the DS, made reference to having seen the movie <u>China Syndrome</u>. They all covered themselves by saying "That's my opinion" (4), "I heard" (22), "I think" (26). Only one speaker took refuge in referring to what "other people" say: people in her country who argue about the expense of nuclear power and people in general who associate the word <u>nuclear</u> with war. The two ASs who expressed concern about the dangers of waste identified themselves as optimists about the abilities of scientists (127,135).

There are clear differences between these two discussions.

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First, the organization is different. The native speakers "stick" the content of their utterances both to their common interpretation of the topic and to the utterances of others. The non-native speakers "stick" the content of theirs primarily to their own interpretations of the topic and only sometimes to the content of the utterances of others, and then often after a time lapse. Second, the native speakers have a larger repertoire of English verbal expressions and devices than the non-native speakers, not only for referring to the subject matter but also on the one hand for relating their utterances to the content of preceding utterances (e.g. That was a design error" (109)) and on the other for revealing the interactions going on between the speakers (e.g. "I just can't imagine that" (116) = I'm skeptical of what you are saying), the one contributing to textual cohesion and the other to discourse coherence, to use Widdowson's terms (1978:22-56). (See Lakoff 1975:312-313 for some discussion of the discoursal significance of such words as well.)

We are here dealing with <u>language in use</u>. The differences in these two discussions are to be found not only in the domain of linguistic competence but in the larger and encompassing domain of communicative competence (see Hymes 1972: esp. 281-286 for the relation of linguistic to communicative competence), though I would hasten to say about communicative competence that a special problem, which can only be alluded to here, is that speakers of a second language from particular regions may very well over a period of time develop their own "dialects" of communication. Among those addressing the phenomenon of English as an international language are Larry Smith (in press) and others

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at the East-West Center in Honolulu.

In taking <u>language in use</u> as the object of instruction, what issues arise? Let me touch on three: first, the authentic vs. controlled materials issue; second, the functional vs.discoursal issue; and third, the linguistic competence vis à vis communicative competence issue. Laid out as polar terms in this way, the picture is too black and white, both within and across issues, but it perhaps can serve as a starting point.

Language learners need exposure to and practice in language in use. Should the materials used as models and/or examples be authentic or controlled, the latter referring to materials created for instructional purposes? There is no consensus. Widdowson and Allen (1974:4-5) argue for controlled materials in order "to avoid syntactic complexity and idiosyncracies of style which would confuse students fresh from controlled materials." Controlled materials, they argue, "can 'foreground" features of language that have communicative value." Such materials would be, in Candlin's characterization (1976a:253) "approximations to the authentic." Wilkins (1976:78-30) suggests authentic materials for recognition, controlled materials for production practice. Coulthard (1977:153) notes the arduousness of collecting authentic materials but expresses concern that created materials might be less authentic in their exemplification of discourse coherence than of textual cohesion, to use Widdowson's distinction again.

As has already been noted, the controlled, discoursal materials recently developed in Great Britain are designed for specific learner needs. In these instances a discourse analysis in a specialized domain provides a basis for the development of created materials, which are matched to identified needs of learners.

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In such circumstances I should think that controlled materials might be developed with some confidence that they do in fact "approach the authentic."

But a problem, especially when we want to serve more general rather than more specific needs, is the one Coulthard pointed out: how to assure discourse coherence in controlled materials. You will recall the expression "Please take your turn" (117) from the native speaker discussion. This expression was complexly related to the total communication situation in a way that would, I think, be hard to simulate. And it is not the expression alone that is important; what is important is to be aware of the interaction of discoursal elements that makes it interpretable--the topic, the setting, the role of the participants, the position in the discourse, etc. This is the kind of complexity that it is important not to simplify.

Another problem is that we need to deal with where the learner is "coming from" as well as with where he or she is going. Though my interpretation here of what authentic materials are may be somewhat deviant, I would include under that rubric the learners' own discourse in the second language, particularly when all participants are non-native speakers with some cultural homogeneity. Such material can be analyzed by the learners who helped produce them, to help both them and the teacher understand what their communication antecedents are, and can ultimately help provide a basis for learners to make their own decisions about which communicative patterns to follow and where and when to follow them.

The second issue in teaching language as communication that

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I want to touch on is the functional vs. discoursal issue. The tendency for functional-notional-communicative syllabuses to set forth, as the object of instruction, a list of language functions accompanied by some of the possibly many associated forms for each function (see, for example, van Ek 1978 and Wilkins 1976) has been criticized as a misconstrual of what language in use is. Language in use is not representable by a set of isolates, whether the isolate units are grammatical or functional, but rather it is representable as a discoursal process, which is the process that gives the isolates their functional values (Coulthard 1975:75; Candlin 1976b:x, xi; Widdowson 1978). Candlin (1976a:253) says:

... if you look at a language pragmatically, then you are centrally concerned with interpretation. You can make suggestions as to interpretation on the basis of your own experience and you can present this to learners as a starting point for what you hope will be a consensus. The learners are themselves analysts, however, and they will derive their own rules of behavior from the approximations to the authentic that you have been able to present them, and from their own experience.

I would add only that I believe that it is sometimes appropriate to provide learners with the authentic, not just approximations to it.

The last issue that I want to call your attention to is a huge one, and that is the issue of linguistic competence vis à vis communicative competence, which as Munby (1977:232) points out has been often misunderstood. Linguistic competence is a part of communicative competence; it is not separable from it. Here, in the short space that I have, I want to refer only briefly to some ongoing research which is addressing the problem of determining what part of language is to be dealt with as

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syntax and what part as lexicon. I include it as relevant to the issue of linguistic vis à vis communicative competence because the redefinition of lexicon that is emerging from this research exemplifies one way that linguistic and communicative competence are bonded.

In recent work on conversational analysis (Pawley and Syder:in preparation) Pawley argues that native speakers, though of course capable of novel utterances, frequently use memorized ones instead, reserving their creativity not for use at clausal but at discoursal level, in the sequencing of their utterances. Pawley suggests that in English tens of thousands of such expressions, many of them whole sentences, have become "lexicalized," that is, whole expressions are stored as lexical items, and that when non-native speakers produce odd-sounding, though perhaps grammatical utterances, the reason may be that they haven't acquired this kind of lexicon.

This suggests that in helping second language learners to communicative competence, not only do we need to attend more than in the audio-lingual approach to vocabulary, which in fact has already been one of the consequences of current emphases on communication in the classroom, but more importantly, we need to enlarge our view of what vocabulary is. If we view the lexicon as Pawley does, then the boundary between vocabulary and syntax becomes flexible and variable. They may be learned together, though just how is a matter to be determined by language acquisition research (cf. Krashen and Scarcella 1978).

An enlarged notion of vocabulary dictates that we help learners acquire not just words but multi-word expressions. One

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way of doing this is to associate such expressions with particular topics. Such expressions are easy to collect. I asked fifteen native speakers to take a few minutes to jot down multi-word expressions relating to the nuclear energy topic. There was a lot of agreement, and when someone came up with an expression that no one else had written down, the others immediately recognized it as a useful one. (See Richards 1970 on word availability and familiarity.) The native speakers came up with expressions such as the following: <u>waste disposal/disposal of radioactive</u> <u>waste; other sources of energy/ alternate sources of energy; limited</u> <u>supplies/depletion of fossil fuels/diminishing natural fuel resources;</u> <u>two sides to the question/both sides of the question; weigh (one</u> thing)against (another thing), etc.

How can this kind of lexicon be presented to learners? Let me turn now to some suggestions for instructional procedures, first for vocabulary, then for the discourse as a whole.

Multi-word expressions collected from native speakers on the topic at hand could be talked about: which ones are specific to the topic? which would be appropriate also for other topics? which other topics? which ones would be used by proponents and which by opponents? which ones by both? etc.

With less proficient students such talk about the lexicon might precede their own discussion of the particular topic. With more proficient students, it might follow, or, if there are several rounds of discussion on the same topic, it might occur at some mid-point.

And in listening to the non-native speaker discussions, the teacher can make note of any "non-native"expressions and at

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the end of the discussion call the speaker's attention to some native speaker counterparts. For example, one of the non-native speakers in the nuclear energy discussion referred to "those material from uh nuclear fusion" "they keep in a special place those unused material" "those unuseful thing" (147-53). The instructor called her attention to expressions such as <u>radioactive waste</u>, <u>the problem</u> <u>of nuclear waste disposal</u>, <u>a developing concern</u>, which she said she found meaningful and helpful.

Turning, finally, to instructional procedures for attending to the discoursal aspects of discussion, and assuming both a collection of native speaker tapes and transcriptions and a recording in class of non-native speakers on the same topics but without transcriptions, let me suggest some guidelines.

The non-native speaker discussions can be organized in various ways. A group can discuss while the rest of the class serve as listeners. More than one group can discuss the same topic out of hearing of each other and then later listen to and talk about each other's tapes. A series of discussions on the same topic can be conducted, varying the composition of each group each time so that there is always a different mix of participants.

It might sometimes be appropriate to discuss the native speaker tape before the non-native speakers have had a go at their own discussion of the topic. But usually, I should think, the native speaker tape would be presented after at least one nonnative speaker discussion. It is not a model, but an example.

In any discussion, questions can be raised that focus on the discoursal process. A preliminary attempt at such a listing is as follows:

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About the opening: Who speaks first? Why? How soon does everyone get his or her turn? How long are the turns relative to the later ones?

About the sequencing: How is each turn (or selected turns) related to the one(s) before it. What words does a speaker use to begin his or her turn? to end it? What do these words mean? At what point does an interruption occur? Has there been a pause or a slowdown? How is what the interrupter says related to the utterance that is interrupted.

About the closing: What is the content of the last few turns? Who utters them? What is their relative length?

About "membershipping": What are the roles of the partcipants relative to the topic? How can you tell:

About selected expressions: In addition to suggesting native-like expressions that non-native speakers might have used, the instructor can select particular expressions both from the native and non-native speaker discussion for discussion of both their textual and discourse meanings. For example: "That's a lot of ifs" (NS--125); "little bitty areas" (NS--64); "That's what's interesting" (NS--135); "I just can't imagine" (NS--156); "But on the way (to doing something)" (NNS--127).

An interesting problem in the native speaker discussion is "I don't think so" (142) for "I don't agree." Does the former contradict facts and the latter opinions? Someone should investigate that!

These two discussions, which are the only ones I have worked with in this way so far, are so rich in their exemplification of aspects of oral discourse that an instructor, along with the learners, would need to do some selection in talking about them.

I would conclude by saying that I have presented these notions on the second language teacher as discourse analyst as suggestive and preliminary, with the hope that others will adapt whatever may be workable for their own stituations, keeping in mind that language in use cannot be separated from its sociocultural context.

Note: I want to thank Mari Koike, teaching assistant, English Language Institute, University of Hawaii, for letting me work with her students and for her feedback. I also want to thank my Spring 1979 ESL methodology students for furnishing the native-speaker discussion and for listening to me talk through some of the ideas in this paper.

# REFERENCES

- Allen, J. P. B. and H. G. Widdowson. 1974. Teaching the communicative use of English. <u>International Review of Applied</u> <u>Linguistics</u> 12, 1, 1-21.
- Candlin, Christopher N. 1976a. Communicative language teaching and the debt to pragmatics. In <u>Semantics: Theory and applica-</u> tion, ed. Clea Rameh. Goergetown Roundtable on Languages and Linguistics, Washington D. C., Georgetown University Press.

\_\_\_\_\_\_. 1976b. Preface to <u>An introduction to discourse</u> <u>analysis</u> by <u>Malcolm</u> Coulthard, ix-xv. London, Longman.

Coulthard, Malcolm. 1975. Discourse analysis in English, a short review of the literature. Language Teaching and Linguistic Abstracts 8, 2, 73-89.

\_\_\_\_\_. 1977. An introduction to discourse analysis. London, Longman.

- Crystal, David. 1969. Investigating English style. London, Longman.
- Goffman, E. 1964. The neglected situation. American Anthropologist 66, 6/2, 133-136.
- Halliday, M. A. K. 1973. The functional basis of language. Appendix in <u>Class</u>, codes and control--Vol. 2: Applied studies towards a sociology of language, ed. Basil Bernstein, London, Routledge and Kegan Paul.

Hatch, Evelyn. 1978. Discourse analysis and second language acquisition. In <u>Second language acquisition</u>, ed. Evelyn Marcussen Hatch, Rowley, Mass., Newbury House, 401-435.

Hymes, Dell H. 1964. Introduction: Towards ethnographies of communication. <u>American Anthropologist</u> 66, 6/2, 12-25.

. 1967. Models of the interaction of language and social setting. The Journal of Social Issues 23, 12, 8-28.

ed. J. P. Pride and Janet Holmes, Penguin Books, 269-293.

- Keenan, Elinor O. 1977. Why look at unplanned and planned discourse?. In <u>Discourse across time and space</u>, ed. Elinor O. Keenan and Tina L. Bennett, outhern California Occasional Papers in Linguistics No. 5, Department of Linguistics, University of Southern California, 1-41.
- Krashen, Stephen and Robin Scarcella. 1978. On routines and patterns in language acquisition and performance. Language Learning 28, 2, 283-300.

- Labov, William. 1970. The study of language in its social context. Studium Generale 23, 66-84. Excerpts in Pier Paolo Giglioli, ed., Language and social context, Penguin Books, 1972, 61-66.
- Lakoff Robin. 1975. Linguistic theory and the real world. Language Learning 25, 2, 309-338.
- Larsen-Freeman, Diane. 1977. A rationale for discourse analysis in second language acquisition research. In <u>On TESOL 77</u>, ed. H. D. Brown, C. A. Yorio and R. H. Crymes, Washington, D. C., TESOL, 172-177.
- Munby, John. 1977. Applying sociocultural variables in the specification of communicative competence. In <u>Linguistics and</u> <u>Anthropology</u>, ed. Muriel Saville-Troike. Georgetown Roundtable on Languages and Linguistics, Washington, D. C., Georgetown University Press, 231-247.
- Pawley, Andrew and Frances Hodgetts Syder. In preparation. English conversational structures.
- Peck, Sabrina. 1978. Child-child discourse in second language acquisition. In <u>Second language acquisition</u>, ed. Evelyn Marcussen Hatch, Rowley, Mass., Newbury House, 383-400.
- Richards, Jack C. 1970. A psycholinguistic measure of vocabulary selection. <u>International Review of Applied</u> <u>Linguistics</u> 8, 2, 87-102.
- Sacks, H., E. A.Schegloff, and G. Jefferson. 1974. A simplest systematics for the organization of turn-taking in conversation. Language 50, 696-735.
- Schegloff, E. A. 1971. Notes on conversational practice: Formulating place. In <u>Studies in social interaction</u>, ed. David Sudnow. Excerpts in Pier Paolo Giglioli, ed., <u>Language and</u> social context, Penguin Books, 1972, 95-135.
- Selinker, Larry, R. M. Todd Trimble and Louis Trimble. 1976. Presuppositional rhetorical information in EST discourse. <u>TESOL Quarterly</u> <u>10</u>, 3, 281-290.
- Simon, Sidney B., Leland M. Howe, and Howard Kirschenbaum. 1972. Values clarification: A handbook of practical strategies for teachers and students. New York, Hart.
- Smith, Larry E., ed. In press. English for cross cultural communication. London, Macmillan.
- van Ek, J. A. 1978. The threshold level for modern language learning in schools. New York, Longman.

- Widdowson, Henry G. 1978. Notional functional syllabus: 1978, Part Four. In <u>On TESOL 78</u>, ed. Charles H. Blatchford and Jacquelyn Schachter, Washington, D. C., TESOL, 33-35
- . 1978. <u>Teaching language as communication</u>. London, Oxford University Press.
- Wilkins, D. A. 1976. <u>Notional syllabuses</u>. London, Oxford University Press.

#### APPENDIX

### Transcripts of Taped Discussions

Symbols used (adapted from Schegloff (1971) and Sacks, Schegloff, and Jefferson (1974))

1		upward inconation	(word)	what something unclear
1		pause		sounds like
::		lengthing of preceding sound, in proportion to	nucieahhr product	an overlay of laughter emphasis
1		number of colons	this- re-	breaking off, sometimes before completion of word
C	J.	something said but not transcribable	o	what follows is softly spoken

Topic: The most important energy source in the future should be nuclear power.

Native speakers B - DS W - SA S - AS

## (Laughter)

- B. Uh OK as the only, DS hore /(S.) DS/7 yes, maybe I should make my position 1 clear. Uh, I think maybe I should have said that I was an SD, but the only reason I d- decided not to say that I strongly disagreed is that uh, I don't think we can just dump nuclear power at this stage uh, I think that we can't just stop, uh using all nuclear, uh energy, all at once and then uh try to find some alternative. Uh I think so, so far a program has been started, that 5 needs to be changed gradually but can't be just changed all at once. Uh, and the reasons why I disagree and the reasons why I think that, with uh all deliberate spee:d that things should be changed is that uh, not so much because of, uh accidents such as at the Three Mile, Island plant but uh because of the uh continuing waste disposal problems. I think that if, nuclear energy becomes 10 the main uh, energy source after fossil fuels disappear then uh, the problem of disposing, the nuclear waste material from the plant will, which is really frightening since it doesn't uh since it goes on for hundreds and hundreds of years I don't remember which material it is that has such a long half life. But uh anything that has that long lasting of an effect. I think, uh, should 15 not be used as an energy source.
- W. Well if you know anything about the future then you know that the next phase from the nuclear power plants that we have now is what they call a breeder reactor, and what in effect it d- it does is that it re- reuses the fuel that it has. As a result you do not have to take out the core and dispose of it because the core itself keeps changing to be, used again, it's reusable fuel. So that is the next step in nuclear power it still is nuclear power, but that would eliminate the problem you're talking about, about disposal.
- B. Uh I yeh I don't know anything about breeder reactors except that, uh the product the breeder reactor is, highly fissionable material, uh which can't be, uh the spread of which is difficult to control uh, in uh recently uh, there's been some problem about uh what to do: with the, how to process the the uh, uh, the product of the breeder reactor so that it can be reused/ and where the processing would take place, who would have control of this processing, and, would uh uh, organizations or individuals who we would rather not have it uh.
- W. Yes, but you see the future plans for breeder reactors, at least the ones that, I've read about in magazines talk about having the, uh conversion uh, plant connected to the reactor itself so that the material never leaves the compound. It travels through/ it's processed right there and then returned to the reactor to be used again.
- S. But even in that- instance isn't there a great deal more uh energy produced than can be used. The- actually- is- uh- what a nuclear power plant does is produce- steam right / I think. I'm not too well acquainted with it but I think the main thing is, you you heat the water it makes steam so we're just

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making steam but it produces way more steam than is necessary, or way higher temperature than is necessary so most of it is then, concerned with reducing the temperature of that steam to get it back down either to use it again or to, dispose of it, so that's back to B's point about waste - it's not only waste disposal but - what to do with this hot very high temperature.

- W. Well see what they foresee with these plants is although it's overproducing now what they're, trying to figure out, what they're trying to do is create enough energy for future use. If they create a plant that only satisfies use now, then that mea- that necessitates building another plant, again, to take over, for the energy needs, for what future needs they'll have.
- S. But since there's such a big problem about how to- take- how to either- since it's such a <u>powerful</u> thing, and we have to bring it back down to lower levels, why not change to something, that doesn't have such a great <u>power</u> to it, for instance, <u>solar</u> energyhhh, uh which is always there, and all you have to do is <u>collect</u> enough for what you need and uh uh build plans that uses what's already 55 available.
- W. Well one problem is that solar energy is not feasible in certain parts of this country. And also they are not sure with the changing weather patterns whether it'll be feasible in other parts of the country and of course part of this has to do with <u>smog</u> patterns from our cities and so on.
- S. But a lot of people disagree with- and say that it is- even with cloudy days there's plenty of solar power, uh, all you have to do is collect it. If you concentrate- if you take- the power that comes down from the sum in little bitty areas, there's not much, but if you gather it all together, like gathering water from a, from a lake into a waterfall, suddenly there's a huge, 65 surge of power and with the sum you can do the same thing.
- B. The trouble with, the trouble with all that kind of discussion, is that you can always hope that some kind of scientific breakthrough will come about so that the ideal power source- can be discovered and right now the thing everyone is hoping for is some kind of practical solar, uh, solar power source 70 uh even just having m m very much more efficient uh storage batteries than now would would make it possible to use solar energy, caught in one location and then- used in another place uh something like that might happen that, we don't have that technology yet, so it's hard to, to imagine what [the-]

[They're] optimistic 75

that solar energy might be able to produce enough energy for communities and so on but they don't believe that solar energy could also supply the needs of industry.

(2 secs.)

B. Well getting back to the uh nucleabhhr energy problem uh, it seems to me even if you have bleed, breeder reactors that uh are self-contained/ uh, that, 80 (1 sec.) there, there is still theproblem that you're handling such a dangerous material, uh, that,

(3 secs.)

- W. Well see [I think the major -] I think the major problem is un-
- Β.

W.

- W. -not the han-, it's not handling the material it's how the material is handled 85 and they have not scrutinized some of these plants closely enough and there are- I think there are five major un builders of nuclear plants, and apparently, like with this, one site, and then with another site, they were built by what. the same company, and obviously there was not screeing going on there. [So it's]
- B. [So you] 90 think one company is the one that's responsible for this-]
  W. [No no] I think, I think that they don't how a tight enough entry?
  - they don't have a tight enough control system. they aren't evaluating the plants closely enough when they <u>build</u> these plants, but if they <u>did</u>, I, if they <u>did</u> proper planning, I mean, right straight through and they <u>financed</u> it, and I 95 think this is <u>one</u> of the problems trying to save on <u>financing</u>,

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- B.,
- But that's not the ( )

They could they would build, they could build plants which could ₩. handle this material safely, to be pro [cessed]

[But] what about the human problem, that's 100 the most interesting thing that happened at the Three Mile Plant, was the fact B . that someone sa::w, the gau:ge that said that it was overheated and just switched it off, just didn't worry about the cooling, uh process.

But see [I] know that the, I know that the one that is made by-₩. ())

- W. =combustion engineering has an automatic shut off which cannot be turned on again by human beings.
- So that was a design error you're saying? Β.
- That was a design error. That- I- I know the reactor that is produced by, by CE and it does have this, automatic shutdown and I've seen the shutdown demon-W. 110 strated by just using a lighted match and they used it throughout the whole system and there's not just one warning device there are several of these, so if one fails, the others are separate. It will cause automatic shutdown and you- there's no way that a worker could walk in and turn it on again.

(General light laughter)

Β. Uh.

(More light laughter)

B. Please take your turn.

(Stronger laughter)

- There's always error, there's always human error and nuclear power is, is S. such a it's so, uh potentially dangerous that uh,
- W. Potentially dangerous: in what way. Uh just for the workers in the plant / 120
- S. No for the whole world actually.
- I can see if someone got a hold of the the core and used it for their own pur-W. poses it would be dangerous but otherwise confined to the plant it shouldn't be dangerous if, if they build the structure correctly.
- S. That's a lot of ifs.
- W. No the structures that  $\underline{I}$  know of, the ones that  $\underline{I}$  have seen, I, at least from my knowledge, have been built so that should, should the core become exposed, there's no danger to human beings. And the core itself does not explode it melts. And in that case what you end up with is a core ( )

S.

No no you end up with a core that is just stuck there. There's no way to ٤. remove it.

- It's stuck down in-S.
- It's it's stuck there ₩. Yeh that's what's interesting ( ). Β. 135 ). W.

China Syndrome.

I was, just, uh maybe it's just a gut feeling, but it seems to me that anything Β. that is that permanent, any un effect un that, on, that, say that spot that, for example that reactor problem that we had down in Pennsylvania. The un waste from that, is going to take what 50 years or a 100 years. That core itself un 140 in the worst case possibility will have to be just concreted over and forgotten. for, uh uh an unimaginably long time.

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B. OK. Yeh.

W.	in the second se	
B.	to be remembered.	145
. W.	No no.	
	(General laughter)	
s.	No, it <u>can't</u> be forgotten right/]	
W.	into research on how- what to do with these other than to just, dump them on the wayside, and [I have a feeling in the future-]	150
В.	But that doesn't solve [ the problem right now ] That's back to the-]	
s.	That's back to the-]	
W.	-and I think that eventually these companies are going to be <u>completely</u> pressured into doing this in fact right now they're being pressured not only by uh environmental groups or, nuclear groups but <u>also</u> by the government.	155
Β.	I just can't imagine that, that <u>any</u> fail-safe being quite that, fail-safe. I think that, this is the best example of the fact that, it isn't.	
s.	And that's back to waste- you talked about the waste disposal, which is-=	
W.	The waste disposal and what to do with the waste material,]	
S.	-which is the biggest problem because] it makes it makes more than we need. (1 sec) It makes more power. I mean it's too powerful a plant. We don't <u>need</u> that kind of power.	160
₩.	Well $\sqrt{5}$ . ( $\sqrt{7}$ the economists say that we need this power and we need it for the future.	
s.	Well I think there're a lot of special interest groups, interest groups that uh,	165
Ψ.	That don't necessarily have the same knowledge <u>as</u> the people who've calcuisted the energy needs.	
	(7 sec)	
	(Light laughter)	
Β.	I dunno I also think that every use are relative, you can make do with what you have if you don't have very much.	
₩.	If you want to:: slow economic progress and maybe that's the fault of the capitalist system it's trying to move ahead and further growth but that's not necessarily our system either.	170
Β.	Yeh well I- (Laughs) Thibhhs gets into all kinds of areas I don't know anything about but=	
W.	Well if you s-	175
Β.	=I don't know if economic growth, I don't know of a system that demands constant	
	economic growth is is in the long run the best type of system. I think that system, I think that the fact that this economic growth is demanded, further demands uh the use of the uh use of the energy source before, it's safe enough. What if, even if at some date breader reactor ( )]	
W.	that [they're safe if we don't-=]	180
Β.	That's just the problem]	
w.	"if we don't allow such uh research and such plants to go-ahead. They told=	
В.	when are they safe	

- W. -us, that these plants were safe, and from an engineer- from an engineering point 185 point of view, they felt that these plants were safe.
- S. But who is the they?

)

This was the Atomic Energy Commission, for one thing felt that the original-W.

They could be-S.

So (

Β.

- W. -designs for the nuclear plant were safe and they were set up, strictly for that 190 purpose, to scrutinize these plants, they were also supposed to be down there at the sites to make sure that the structure was built, section by section as it should be.
- But they may not be doing their job. S.

Yeh I wonder if this shows that maybe we [should be] taking some responsibility= B. But just-W.,

8. -ourselves.

W. Well, you could. You could create a civilian committee of engineers who know something about nuclear, engineering and have them go down and scrutinize along with the Atomic Energy Commission and, possibly the military, the 200 military also has a stake in this.

> Non-native speakers C - AS H - AS K - AS M - DS

- C. ) energy source, in the future. But uh, everything in this world I think they have a two a two choice/ advantage and disadvantage. I think if we use nuclear for peace/ I think- very, we can get- advantage, but if we use nuclear for- uh in the opposite way I think <sup>o</sup>it's not good. That's my <u>opinion</u>.
- H. Yeh- my opinion is uh, I agree but I worry about something uhhhh because uh very un difficult to treat with un nuclear power, if un so maybe, you get un radiation/ problem, nuclear power/ so, you have to take care of un keeping un safe so, and un, why I agree, un that un opinion is that, un (1 sec) un our energy's un limited especially, un oil/ or something, so, un now we have to use another energy, maybe, some, energynhhh ( ) ocean, energy, yeh, I 10 can't think about every- kind of uh energy but uh, now, uh what is there available is uh nuclear power, so we have to, use to, this power, and then we look another power source.
- K. Yeh I agree, I also agree with uh using nuclear power but uh dangerous thing is he mentioned already uh radiation/ disease/ so uh um uh research should uh 15 do more about uh how to uh how to treat uh waste, wasting material/ or uh the refuge /sic7 from uh :: nuclea :: r fusion uh what they can do with those and, but uh and also uh. I'm not strongly agree with uh :: nuclear power because there is uh solar power, and then the problem is uh solar- we can use the solar energy but ah energy is not uh, strong enough like nuclear energy and recycle system (uh a those) and, even though uh we can use, solar energy everywhere but uh we need the solar collector, uh it cost very very much I heard, so uh uh 20 (related with) uh concern, concer- concerning uh development of of industrial development, we need to use nuclear power but, uh researchers should do more about uh solar energy, at the same time. 25
- I think nuclear power's very uh, dangerous, just like a film, called China (Setrum)/ If you see the film you know that, although you all know it because Μ. you're not in a factory, but sometimes you have some uh really den- dangerous thing, like is something wrong in the factory, then maybe the place has been destroyed/ That's why- and also- I think- although it's useful (I think) to have nuclear power because uh, the limitation of the natural resources we have/ (2 sec) uh, but because of this so dangerous, we. I think, it's not good for

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us, to use it as a chief, energy, we can use it for somehow for somewhere, but we-we have to limit it, cannot say every factories in the world, will use, nuclear power. It's so <u>dangerous</u> right/ For example uh if all the world 35 every pe-country use it, if one country has some problem, then the whole world may be <u>destroyed</u>. And, I think- the scientists should, try to, invent some, other, power just like, uh: that solar power something like that/ I think it's not so good right now eh. It's not as good as the nuclear power not so powerful but it's safe. ( ) that's why I think, that's why I don't really 40 agree with this, I agree we we should <u>use</u> it, but not- as a <u>chief</u> energy.

(2 sec)

- C. I think that uh, uh nuclear power can use only in the rich country. In the poor country or the (big) country I think we can't use it because uh uh it cost expensive. And uh, in this situation, I mean uh now they have a confrontation between US and USSR, °I mean Russia, and I think maybe it it good both 45 sides have nuclear power, maybe uh sometimes they can bargain for something. That's my opinion. (Laughs)
- M. I heard not only USSR and USA has uh this nuclear power, and Middle East and uh (aitch) uh yes, somewhere, uh, Iran or, not uh USA have advantage in this field I heard that, so-

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- () ( ) (Laughter)
- H. Ye:::h In my opinion, yeh nuclear energy is very uh dangerous. But uh maybe they use uh, nuclear energy, for some reason, f- for example, for war or something <u>1</u>(). Yeh. / so they study it, studying that, uh that uh energy, about that energy, so people will study some of, uh study nuclear energy/ maybe, I can we SS can studhhy nuclear energy for peace. Not f- for war. So we have to be idealistic to use, the nuclear energy.
- M. But right now the topic is only about chief energy /(). Yeh.7 nothing to do with war or peace. Doesn't say whether you agree to nuclear power for war or peace, just for energy.
- C. Yeh. In my country we have a plan to use uh nuclear as a a resources uh uh, something like uh uh, we built a big building and we use as a electric ( ) factory and we would like to use nuclear power, in it. The reason /(). Mmm./ the reason is that it's very expensive and, people uh, disagree to, m, for that project /(). Mmm. Mmm. 7 and I think that nuclear power we can use both 65 way, peace or uh war. But if you use f- for peace ( )
- M. But for energy shor- s- it's nothing to do with war or peace I think.
- C. Yeh, but it seem that uh when when uh the people take nuclear nuclear and, most of the people it seem like it seem like uh war, something like, I don't know but, (laughs) but now it very popular word, right/ /R. Uhm.7 ( see it) on the newspaper or something.
- H. You know nuclear energy's uh most uh maybe effective /Umhum.7 so we shouldhld stuhhdy ihht, a lot /C. Yeh.7indeed yeh/ yeh and it uh should be /C. Umhum.7 now I don't know er in the- for future, no:w, nowaday they agree, that power's very effective and very great/ /D. Yes.7 so we should, use, that energy.
- K. I think building uh:: nuclear fusion is expensive but after once, building uh, making a nu- nuclear fu- fusion uh, I think recycle system is very well done so I think nuclear power is, really cheaper than any o[ther].
  - Yeh, yeh tha- that's

good yeh.

- C. Yeh but in the beginning.
- K. Yeh at the beginning,
- II. [There's a, technical] problem.
- C. Yeh.

H.

- K. Technical yeh.
- H. So so if uh technology's, developed, maybe.

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Yeh we have to spend a lot of money for that, in the beginning, and that C. the problem. But anyway we we have a problem uh to solve the uh m scarce resource natural κ. resource of energy so, we might, have to usehhh, nuchhlear energy you know. 90 Yeh we have to use it but not as the chief like the chief the chief energy= Μ. The chief-()M. =right/ Like "for chief energy" means that- a uh it's the, top thing we use and then uh ga:s or or solar energy or the other energy the hydroelectric is the-95 K. Yeh but-But nowaday (7). Yeh.7 it's uh, not available, for ( ) I mean, only. Н. available is uh, uh, water energy/ Yeh, [yeh, electric,] yeh electricity and, κ. and yeh H. 100 H. So nuclear, к. 1 ) yeh um. C. We need much power. H. Yeh | ( > Yeh, yeh. K. 105 Yeh. Μ. H. It's a very problem. ) Now, You] know te- technology career, uh everything developing Κ. so we need energy without energy uh we cannot develop any scientific things you know so-110 Μ. Yeh but if ( . I think natural, [energy's not] enough to support these development= Κ. М. K. =I think. If, you know the uh effections sometimes like if, ok for some time being it's no uh, it doesn't affect anything right/ /K. Ummn.7 but in the (long run) like a hundred years ago and something like (nature). like many people they (assack-get sick?) the radiation /K. Yeh.7 and a lot of people may die. different disease /K. Yeh.7 you cannot tell. It's a big problem underlying М. 115 /K. Manhann. Yeh.7 120 (2 sec)Because people get little by little right/ C. Κ. 1 ) Like- like- few years ago we- we didn't have cancer/ right now almost every people, tend to have it/ /C. And ( ). Yehh7 but maybe later on if you used nuclear power as a chief uh energy sources, later on maybe, another м. 125 disease, is, even more uh worse- than the cancer. But on the way to developing nuclear power, maybe scientists will find, how Κ. to [solve] those problems. Μ. Maybe, yeh.

-29-

- M. But takes time right/
- K. Yeh [cakes time.]
- M. Many people die who didn't know that.
- () (Some laughcer)
- M. You know you have to consider this first.
- H. Mm. But uh (scientists)protect, the people from uh radiation, ( ) protect 135 [people, enough] you have enough uh uh.
- M. [You have to protect them from radiation.]
- M. You know they are- still trying like, right now the country is still tr- trying to improve, it it didn't say it's safe enough.
- () Umhman.
- H. I don't think so.
- M. You chink che-
- H. If you uh you have- enough preparation, for starting uh nuclear power/ maybe, it safety. Because uh in fachhht they have uh, nowaday, we have uh uh nuclear energy yeh/ /M. Umhman.7 so there someone admit, so maybe some so- someone admit uh that uh it's uh safety- safe. Yeh if we have enough prepare, 145 preparation/
- K. I think using uh nuclear power itself is not dangerous but uh wasting, unuseful material from uh nuclear fusion, you know, how to uh to treat how to use those mat-materials after that, that is the important thing, you know uh now I don't know how to- they keep in a special place those- u- unused material but if we use lots of uh nuclear power maybe lots of amount of those unuseful thing come out from nuclear fusion so, that one thing I'm afraid you know, increase those materials.

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