

LANGUAGE USE AND SCHOOL PERFORMANCE IN A NATIVE CLASSROOM

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ABSTRACT/RESUME

Social scientists have put forward many explanations concerning cultural differences in schools and poor Native performance. Heyman argues, however, that while such studies indicate typical social concerns, they fail to investigate student-teacher interactions. His approach deals with interpreting children's and teacher's talk during routine classroom activities and the methods which Native children and their teachers use to constitute good classroom performance. The author hopes to persuade others involved in education and cross-cultural research to pay more attention to the phenomena of interest and interaction when studying the social world.

On a proposé de nombreuses explications concernant les différences culturelles dans les écoles et les résultats peu satisfaisants obtenus par certains élèves autochtones. Selon l'auteur, pourtant, de telles études s'inspirent davantage des préoccupations sociales courantes que des échanges entre l'enseignant et ses élèves autochtones. La méthode de l'auteur consiste à analyser ces échanges, dans la salle de classe, au cours des activités normales du programme, et à étudier les moyens de communication utilisés avec succès dans ce milieu spécial, entre enfants autochtones et leurs professeurs. Il espère persuader ainsi les autres chercheurs qui s'intéressent à ce problème de prêter plus d'attention, dans leurs investigations, aux phénomènes de l'intérêt et de l'échange.

In normative social science the phenomena are simple, the methods are complex; in interpretive social science the phenomena are complex, the methods are simple,

Preface

In a recent paper, Harold Garfinkel (1981) notes the distinction in studies of the work of scientists' discoveries "between studies that make 'mentions' of their work ('studies about their work') and studies that deliver 'material exhibits of work in sequentially developed and technical details' ('studies of their work')." He further notes that there exists a gap in the literature: "Studies about discovering scientists' work are commonplace: Studies of their work are rare."

A similar gap exists in the literature on Native children's school performance: studies about Native children's performance are commonplace: studies of their performance are rare. This gap suggests a recurrent feature of social scientific research: most of it is based on the assumption that the social world is a world of objective fact which can be studied at a distance and talked about as one talks of objects that are stable, discrete, and permanent, and which exist independent of context.

The following discussion suggests reasons why we should abandon both studies about performance and the assumptions which underlie them, and devote our attention to the study of performance as a way of uncovering the work that teachers and Native children do in the classroom, which is commonsensically understood and labelled as teaching and learning. I argue that it is through the description and interpretation of the interactive process that we can best understand the ontology of Native children's performance in school as a feature of the social interaction and organization of the mundane life of the classroom.

I further argue that school performance, like other artifacts of the social world, is constituted by and inseparable from, the processes of talk and text, such that talk and text and performance are mutually constituting, rather than having an objective independent existence i.e., being stable, discrete and permanent. Our problem is: how may we go about adequately describing teacher and pupil work in doing teaching and learning as a mundane classroom activity such that a hierarchical sense of Native student performance is created? I believe that it is through understanding this work that we will be able to better understand the 'problems' of the Native child at school.

In order to illustrate this approach to Native studies, I present a brief analysis of a problem in assessing Native children's performance in a grade one classroom, using the methods of discourse analysis. The specific data I examine are examples of trouble sources in a series of utterance sequences found in the transcript of a lesson on the English nursery rhyme, "Jack and Jill." The problem I address is that of showing how that which is normatively called cultural deprivation, cultural difference, or cultural dissonance makes itself

available to us in an interactive situation. Essentially I am suggesting that explaining school performance by appealing to cultural differences is a gloss, a way of accounting for supposedly objective facts of the classroom by invoking commonsensical, generalized statements of group differences which remain largely unexamined as hearable features of social interaction. In other words I am arguing that trouble in talk between a non-Native teacher and Native pupils is not usefully understood as having cultural difference as its source, as its *raison d'etre*, when we actually work on analyzing the talk itself. Any attempt to go beneath trouble in the surface features of talk, such as intonation, stress, prosody and syntax, to trouble in the structures and meaning of utterance sequencing in the talk, and to explain this trouble culturally, is fraught with difficulty.¹

Introduction

Most approaches to the study of the performance of Native children in the classroom have viewed measures of performance as relatively unproblematic. The usual approach in correlation studies, which have been the mainstream research paradigm in the sociology of education (Karabel and Halsey, 1977), has been to treat school performance as objectively measureable through the administration of standardized achievement tests to a statistically significant sample of students. The scores on such tests have then been normalized and correlated with a wide range of independent variables, and the resulting correlation coefficients have been interpreted to show that relationships exist between school performance and a wide range of school-based and socially-based variables.

Recently, I and others have argued that such studies distort and hide, rather than clarify and "reveal, those features of school performance which are the objects of interest, largely due to the ontological obfuscation which is intrinsic to correlational studies (Heyman, 1980, 1981; Heap, 1979; Mehan and Wood, 1975; Mehan, 1979; Cicourel, 1974). I do not intend to repeat these arguments here. The purpose of this paper is to focus on the subject of Native children's classroom performance and to suggest how we might proceed in an alternative fashion to examine this performance as inseparable from the interactional process by which school performance is socially organized, created, and revealed as apparent object.

In other words, I will argue that Native school performance cannot be understood without direct and explicit recourse to the everyday interactive features of the classroom. To do otherwise is to ignore the indexical nature of performance in all classrooms, be they of majority or minority cultural or linguistic groups in Canadian society.

Such glossing is an observable feature of our normal sense-making activities in everyday life, but it is not useful as a way of better understanding the socially produced aspects of school performance. The knowledge that student *x* is a Native and teacher *y* is an Anglo raises in us certain norms, expectations, and stereotypes as to the probable nature of student/teacher interaction and per-

formance. However the actual playing out of this scenario is not scripted. Neither biography, nor context is determinate in a fixed, objective sense. Our knowledge of what happens in the classroom when Native children and their teacher, Anglo or otherwise, interact, and do teaching and learning is, and must be, the result of our interpretation of the sense making activities that take place in some observable fashion between children and teacher.

As I have observed in another context,

The reflexive nature of the relationship between meaning and context is a useful reminder of the complexity of interaction in classrooms. The teacher and pupils jointly work to make sense, in a hearable way, of each other's spoken and written discourse.

(Heyman, 1983, forthcoming)

It is the reflexive nature of social reality, in which biography and context are mutually constituting, which places limits on the kind of knowledge claims we can make about the social reality. I would argue that our focus must necessarily be on the observable everyday activities of classroom life because these are the only knowable or, at least, reportable features of the social world which are available to us.

This is not to argue that we do not all carry around in our minds a stock of knowledge, passions, desires, fantasies, etc. which affect our interaction with others and which affect our perception of the social world. I would simply claim that the minds of others are not accessible to us as researchers anymore than they are accessible to us as members. As members of society we must constantly provide interpretations of other's utterances in discourse, filling in all the background information, meaning, and context which is not included explicitly in the utterance. As researchers we must do the same thing, but in a more controlled, systematic way. As researchers trying to remedy the indexicality of others talk, we have no privileged status; we are just members.

Our interpretive advantage lies in our attention to the embeddedness of the interaction *ex post facto*, in which we can examine the processes whereby the structural features of the social world are created.

Having said all this by way of introduction I would like to turn my attention to the specific problem at hand: how to describe the school performance of Native children.

Native School Performance

It has long been remarked by all concerned, that Native children do not generally succeed in school, especially in the later grades of elementary and high school. A great deal of effort has been expended to document and analyze this apparent social fact. The explanations put forward for this relative failure in school have been many, but can be summarized in terms like the following: cultural and linguistic differences, environmental deprivation, poor teaching, poor facilities, lack of motivation, and value differences. I will refer to the

literature on some of these items later in this article.

In a sense, my interest begins where these explanations end. What I argue on the following pages is that these explanations are not explanations in any scientific sense because the variables they study are not ontologically amenable to scientific explanation. The socio-cultural variable, and the school performance variables which they measure, observe and correlate, distort the ontology of these variables so that often they are even unrecognizable to the people being studied. What most sociologists and anthropologists have failed to acknowledge is the significance of the fact that the variables they study are (1) only supposed to be indicators for the real phenomena of interest and (2) are not observable in anything more than a common-sense way. As such they are not amenable to scientific manipulation, nor do they reveal to us the enormous complexities of everyday life in which things like classroom performance or cultural differences are both hidden and created. Mehan and Wood (1975:48) have put this quite succinctly: "In the sociologist's tables of data, and even more in the theories made up about those tables, one cannot find a sense of the person's daily activities that produced the various phenomena those tables talk about."

Normative studies of Native school performance easily make us forget that the real phenomenon of interest is how performance gets done, that is how the participants in the everyday life of the classroom interact such that what counts as performance is created as an apparently objective fact. In other words, the mistaken conceptualization in such normative studies is in behaving as though process and product were existentially distinct. This mistake is understandable because the treatment of social reality as composed of social facts is necessary if the social sciences are going to be analogous in their methods to the physical sciences and the properties of social phenomena are to be regarded as essentially the same as the properties of physical phenomena. The logic of scientific explanation requires that the phenomena being studied and causally related to other phenomena, have properties which can be assumed to be stable, discrete and permanent, and that no property will distinguish one identical phenomenon from another (Mehan and Wood, 1975:64-66). Although this may be a reasonable assumption within the natural sciences, we would argue that social phenomena are not usefully conceived of in such ways, and that the success of the natural sciences compared to the success of the social sciences supports our position. The phenomena of the social world are neither stable and discrete, nor permanent.

What we must do, therefore, in studying the classroom performance of Native children, is to employ a method, and conceptualize the phenomena of interest, so as to allow us to account for the contingent nature of school performance, to understand performance as a product of the social organization of classroom activities. In taking this approach we are arguing that in order to study Native performance we must interpret the interaction which is available to teacher, child and researcher as the document of performance. We are making problematic that which most other research on Native education has taken for granted: the common-sense practices and use of language in everyday classroom life.

Anthropological Approaches to the Study of Native Education

The literature on Native education is extensive. In my search of the literature of work done which relates to the analysis of Native classroom life, I found a number of ethnographic accounts of Native classrooms. One prime example of this kind of analysis is that of Dumont and Wax (1976) who attempt to use classroom observation of the Cherokee as a basis for describing contrasting cultural values found in Cherokee children, Anglo classroom teachers and Anglo children. Their thesis is that life in a Cherokee classroom is the result of the ongoing interaction between teacher and pupils, each of whom may have different cultural backgrounds. The effect of this "clash of cultures" is often the alienation of the students and the placing of an unnecessary obstacle in the way of their learning the work of the classroom such that "... unless the teacher chooses to recognize the social nature of the classroom and to work toward integrating his teaching with that life, he will not be able to elicit active learning experiences from his pupils" (Dumont and Wax, 1976:214).

This genre of work on Native education reveals what I have found to be the common theme of studies of intercultural education: explaining differential school performance in terms of a clash of cultural values and understanding. Unfortunately, it rarely provides a systematic presentation of the actual interaction that takes place in the classroom. In a summary of research on Native education Cazden and John (1971) reported most ethnographic work on Native classroom life is anecdotal and normative insofar as it gives incomplete data for its interpretations, and draws heavily upon commonsense notions of cultural differences, norms, and measures of school performance. Thus in spite of their often compelling descriptions of unfamiliar cultural milieu, ethnographies do not allow us to recover the basis of their findings (Mehan, 1979:35). We are no further ahead in terms of rendering accounts understandable from such ethnographies than we are from standard correlational studies of Native performance such as that of Guilmet (1978), in which observations of behavior are placed into pre-established categories, coded, and statistically analyzed.

Surprisingly, work on Native classrooms, with some exceptions (Erickson and Mohatt, 1982; Philips, 1972), seems largely to have ignored the work in socio-linguistics that Gumperz and Hymes (1972) have collected under the subtitle "ethnography of communication," using the theoretical notion of communicative competence, that is "What a speaker needs to know to communicate effectively in culturally significant settings" (Gumperz and Hymes, 1972:vii). This is necessarily an oversimplification of what is of interest in the papers included. For example, Garfinkel's discussion of ethnomethodology and chapters by Sacks and Schegoff make the concept of competence itself a reflexive feature (Mehan and Wood, 1975), that is that the notion of competence and judgements of competence in interactive situations are inseparable.

Philips (1972) uses the communicative competence model to conclude that "Educators cannot assume that because Indian children (or any children from cultural backgrounds other than those that are implicit in American classrooms)

speak English, or are taught it in the schools, that they have also assimilated all of the socio-linguistic rules underlying interaction in classrooms and other non-Indian social situations where English is spoken." I would add that the relationship between communicative competence and performance is in itself problematic insofar as it is necessary to relate "successful" linguistic performance to linguistic form, semantic interpretation, pragmatic use and the interaction of these factors with context (Coulthard, 1977 Wootton, 1975). This particular problem of discourse analysis suggests that the competence/performance model must make the accomplishment of competence itself problematic.

The Analysis of Talk

I would like now to come back to a question which I raised earlier, that is, what is available to us as researchers in our attempt to study teaching and learning in a Native classroom? This concern is important to me for both its methodological and its epistemological implications. I would like to examine it by first presenting a picture of the Native classroom data which I have recently collected and begun to analyze, and which prompted me to think through the problems which confronted me by systematically exploring them through the expedient of this paper.

The source of my data was an elementary school in a public system in rural Alberta. The school is located at the edge of an Indian reserve and a large number of Indian children attend the school, in spite of there also being an elementary school on the reserve. After considerable discussion with the superintendent of schools, the principal, and a grade one teacher, it was agreed that I would be given access to a grade one classroom from September through June with permission to make video-tapes of the normal routine of the classroom. I began the taping at the beginning of school in September and continued taping until the following June. I did a total of twelve hours of taping over the course of the school year. All of the talk on these tapes has now been transcribed.

What I have as data, therefore, are a twelve hour record of the everyday life of the classroom selected from a period of approximately ten months. I have a record, limited as it is, of the routine life of the classroom and it is available to us on an unlimited basis. What we can observe is people saying things and doing things. It is this saying and doing which is available to us as analysts. What we cannot observe is people thinking. In a commonsense way we can observe them teaching and, more indirectly, learning, but as analysts we would be forced to admit that teaching and learning are labels which attach to certain instances of saying and doing. There is clearly an assumed logic in this labelling activity, but the labels are not identical with the activities themselves. Our assessment of an activity as an instance of teaching is normative, and our assessment of an activity as evidence of learning is a form of criterial relationship (Heap, 1980). In such instances it is heuristic to think of teaching and learning as *what counts as teaching and what counts as learning*.

This is a slight but important difference. It is important because it is a continual reminder of the fact that teaching and learning are not available to us

as objects in the physical world, but only as labels applied in a commonsense fashion to certain instances of saying and/or doing. Thus the ontology of teaching and learning is different from the ontology of physical phenomena. These exist, whether or not we have labels for them; teaching and learning exist only insofar as we label instances as teaching and learning.

What we have as data, therefore, are a lot of 'sayings' and 'doings'. My problem, as I have said earlier in this paper, is to describe how these 'sayings' and 'doings', this work, is commonsensically heard as teaching and learning by both the members of the class and by the analyst. In any case what we must do is describe the process whereby teacher and pupils try to make sense to each other.

One approach to this problem is through the analysis of talk. The reason for this is obvious: most classrooms seem to be constituted through talk. Teaching is done largely through talk, learning is often evidenced through talk, classroom control is managed through talk, and classroom disruption often takes the form of talk. As others have observed, it is largely through talk that a sense of a "social reality as something out there" is generated and made observable (Leiter, 1980:21). Talk is responsible, in this sense, for creating a world in which talk is possible.

There are a growing number of studies which focus on the analysis of talk in order to deal with the problem I have mentioned above as my problem of interest (Cicourel, 1974; Heap, 1979; Heyman, 1983, 1984; McHoul, 1978; Mehan, 1979). Many of these have given much attention to utterance sequences such as question/answer pairs.

In our data much of the teacher/pupil talk would fit into this commonsense category. It involves exchanges between teacher and pupils in which questions are heard as leaving spaces for "candidate" answers. The work which must be done in these exchanges is for teacher and pupils to successfully complete the sequences of utterances so that the normal order of speech behavior is not breached. For example, if no utterance is given in response to a question, we may 'hear' this as 'not-knowing', 'not attending', 'not cooperating', or 'not understanding'. Precisely how the non-utterance is heard can only be decided in the context of the speech exchange.

It is in the context of these speech exchanges between teacher and Native children that the phenomena of cultural differences might potentially be made real, that is, it is in the interactive process that we might make sense of categories of cultural differences by using them to explain pupils' performance. The inadequacy of this documentary method, however, stems from the fact that we must always remain uncertain of the validity of our account because we cannot remedy three principle problems which prevent us from making certain judgments about a pupil's mental state based on observed performance. Heap (1980) has called these the problems of (a) frame, (b) barrier and (c) resource. In summary, we cannot be certain of a mental state from observing performance because of the possibility of: (a) a student having different frames of reference for understanding or completing an utterance or task; (b) the features of the utterance or task organization standing as a barrier to successful completion of

the task; (c) the student having resources other than the original utterance or task for successfully completing the task.

Our normative expectation is that Native children will exhibit all of these problems. Native children's responses to teacher's questions, directives, requests, and so on might often be the result of any or all of the frame, barrier or resource problems. The point is that we will never know with certainty, regardless of how commonsensical and self-evident these explanations might seem. This being the case we need to place even more effort into the description and interpretation of that which is observable, namely the utterance sequences produced by teacher and children.

In some earlier work on the analysis of elicitation sequences (Heyman, 1983) I studied the way in which teacher and pupils worked to make sense of the teacher's repeated question "What do you mean?" during an elementary school science lesson. My analysis revolved around the problems the teacher faces in assessing the state of pupils' knowledge of an experiment which all were presumably accountable for knowing. From my analysis of teacher/pupil talk I concluded the following:

The use of "What do you mean?" by the teacher in our transcript suggests to us that what is being asked for from the pupils is for them to reveal through talk the full state of their knowledge regarding some aspect of lung capacity. This is clearly problematic for most of the students in our transcript. The unfortunate aspect of this situation is that it does not allow the teacher to assess the state of pupils' knowledge because he cannot know if their response indicates the state of their knowledge about lung capacity, or the state of their understanding of the meaning of the question "What do you mean?"...

Our analysis suggests, above all else, that the right of teachers to make requests of students of the kind "What do you mean?" has a logically prior obligation, which is to ensure that both teacher and pupils have, as a resource, a common stock of knowledge from which to draw candidate formulations or reformulations. It also suggests that teachers need to be as explicit in the formulation of questions and acceptable answers as they expect their pupils to be in formulating their responses. However, this common stock of knowledge must necessarily be reformulated in context so that all participants share in its reformulation and thus share in its meaning. It is through this social process of reformulation that such shared meaning can emerge as a joint accomplishment of teacher and pupils. (1983:40-41).

This long quotation is meant to illustrate the kind of "findings" which can come out of a study of talk in the classroom. In our study of Native children, we expect the problem of a common stock of knowledge to be exaggerated,

but, nevertheless, the resource problem remains the same and must be 'hearable' in the talk. Cross-cultural situations serve to highlight the problem of the indexical nature of meaning, that is, that meaning derives from context. Indexicality is highlighted because in cross-cultural situations, as in the case of Native children with a non-Native teacher, both teacher and children need to interpret each other's talk correctly by providing the appropriate context for interpretation. In situations where a common cultural background is not shared, this interpretation can obviously be problematic. This is a commonsense observation. What I hope to show in the following examples is how teacher/pupil talk is or is not hearable as problematic. It is self-evident that in order to understand performance we must study performance, that is, teachers and pupils interacting in the classroom.

Trouble in Talk as Cultural Difference

As I said earlier, one of my interests in this data on Native education is whether or not trouble sources in classroom talk are best explained by the gloss "cultural differences."

In order to examine this problem I have chosen four examples of trouble sources from the talk of this grade one classroom. In each example there is a trouble source, that is, something which hearably prevents the expected orderly flow of sequential utterances such as mistakes, corrections, repairs, reformulations and speaking out when one does not have the floor. Specifically the trouble sources are as follows:

- (1) Incorrect formulation in response to T's request for formulation.
- (2) No response to T's request for re-formulation.
- (3) Sanctioned formulations.
- (4) Child's correction of T's formulation.

The surface work of the talk in general seems to be to have the teacher and children jointly arrive at a description of the characters, events and sequencing of the story in the rhyme, "Jack and Jill." The trouble that arises during this work can be heard as the teacher and children orienting differently to the task at hand. The examples which follow will allow me to explain this trouble in reference to the problem described above.

Example (1): Incorrect Formulation

- 629 T: I think we'll sing that song again and we can be leaves
once again.
[8 seconds] [noise of movement and chatter]
Yesterday we met someone . . . It was a little girl - - - and
she went up the hill with Jack and her
- 630 P: (Jane)
- 6S1 T: Name was - - -?

- 632 Ps: [Responses of "Jill" or "Jane" given]
 633 T: Jill. Was her name Jane?
 634 T: No
 635 P: Jill
 636 T: Jack and Jill, no Jane

Example (2): No Response to Request for Re-formulation

- 676 T: Just go quietly and quickly... Put your hands up if you can tell me why Jack and Jill are going up the hill. Why are they going up here?
 677 Virgil: Water. [almost inaudible]
 678 T: I hear Virgil. Why are they going up there Virgil? You're right . . . They're going to get something. What're they going to get?
 679 P: Water
 680 Lisa: Fetch a pail of water.
 681 T: What are they going to get, Virgil?
 682 Lisa: A, fatch a pail of water.
 683 T: Are they going to get some water? (4 seconds) Colin, can you tell me what happened to Jack... when he got to the top of the hill?

Example (3): Sanctioned Formulations

- 693 T: I want you to take a look at the pictures... Can you tell me which one of these children do you think is Jack?
 694 Lisa: The purple one
 695 T: Shh! Don't tell. [whispered] Do you think it is the orange one or do you think it is the purple one?
 696 Ps: Purple one.
 697 T: Shh! Don't tell. [whispered]
 698 Ps: Purple one... purple one.
 699 T: Sh! Don't tell. [whispered] Let's look what happens when they go up the hill . . . Oh, look! [whispered] Somebody fell down. Which one do you think is Jack?
 700 Colin: Purple ().
 701 T: Mandryk, I see your hand up. Come and show us who is Jack . . . See if Mandryk knows who Jack is... Ah, what color is he Mandryk?
 702 Mandryk: Purple.
 703 T: Yes, he is. He's purple. So Jack is the
 704 T & Ps: Purple.
 705 T: Child because he is the one that... what happened to him?
 706 Lisa: Fall down and broke his crown.

- 707 Mandryk: Fall down.
 708 T: Thank you, Mandryk. You did very nice.

Example (4) Correction of Teacher's Formulation

- 735 T: Can you come and find the picture? All right you come
 and find it.
 [13 seconds of indecipherable utterances]
 Hmm. This picture shows..., can you see that Cassandra?
 Can you see Angeline? . . . Let's see which one happened
 first. What did they do first in the story?
- 736 Lisa: They climbed up.
 737 T: Say it with me.
 738 T & Ps: Jack and Jill went up the hill
 To get a pail of water
- 739 Lisa: Fatch a pail of water
 740 T: Let's see if she can get it.

In all of these examples we can hear some form of trouble. It is different in each case. In example (1) T eventually provides her own correct formulation in (636) after students have offered both correct and incorrect formulations of their own in (630), (632) and (635).

In example (2) T repeatedly tries to elicit a reformulation of a prior correct but inaudible response from a student who is not forthcoming with the reformulation.

In (3) T sanctions formulations from pupils who do not have a recognized turn at talk, even though we can hear retrospectively, in the talk, that they were formulating correct responses in (694), (696), (698) and (700). The accepted formulation in (702) is no different in content from the others. But the others did not have the floor when they gave their answers and were sanctioned for it.

In (4) T's own formulation is corrected by a pupil in (739), whose correction is ignored in the utterances that follow.

Having briefly examined the talk are we justified in explaining the trouble as a function of cultural differences? The context of the transcripts used above is a classroom with all Native children except one, and an Anglo teacher. However, the context for understanding the talk goes beyond this: it is open-ended and includes the overlapping memberships of all concerned, including the teacher, the children, the analyst and the reader of this paper. We can say, commonsensically, that the range of cultural differences among this group must be great in terms of the normative meaning of culture as including knowledge, beliefs, art, morals, laws, customs, etc. We all have differing cultural backgrounds insofar as we all have different biographies. This has some significance at the level of discourse analysis.

At this level trouble in talk is not necessarily an artifact of culture; it is an inescapable result of the indexical nature of language. Any formulating utterance provides an occasion for trouble in the sense of giving participants an

opportunity to gloss the talk-thus-far and allowing the possibility for participants to examine and compare their own understanding of the talk or situation with that of others.

Given that trouble in talk is a readily available feature of talk, I find it difficult to attribute specific instances of trouble to cultural differences in the stock of knowledge in any principled way. All talk necessarily draws upon a stock of knowledge which is presumed to exist in both speaker and listener because formulations mean more than they can say-in-so-many-words. How then can trouble be assigned to cultural difference?

In each example above the trouble arises in a way which can be explained in ways which are not cultural. The trouble in example one is an incorrect formulation given by students while at the same time correct formulations are also being given. All the students involved are Native, with one exception. A cultural explanation of the trouble would require a cultural pattern to the occurrence of the formulations. There is none. Native students provide both correct and incorrect formulations.

Example two instantiates a Native student's refusal to take his turn at talk. Since his original utterance was in response to an open request for formulations, the pupil's original utterance was appropriate both sequentially and factually. It was simply too soft. The trouble lies in his refusal to repeat his formulation. Since other Native children are more than willing to repeat his utterance for him it is difficult to say his refusal has a cultural basis rather than some idiosyncratic source. The student in question does not take a turn when he is expected to. Yet the Native children do not generally exhibit an unusual problem with their turn-taking competence. The trouble in this sequence does not seem to be cultural in any principled way.

The trouble in example three also has its source in turn-taking insofar as a number of students speak when they do not have the floor and are sanctioned by the teacher for doing so. Yet this kind of turn-taking problem is manifest in every classroom I have ever visited. Students often formulate both correct and incorrect answers to questions out of turn, regardless of the teacher's "rules". It would be hard to explain the trouble on cultural grounds.

In the final example the trouble is found in the non-Native pupil's repair of the teacher's faulted version of the rhyme. One might want to argue that it is culturally significant that it is the one non-Native member of the class who repairs the teacher's error and that this suggests a cultural familiarity with the rhyme that the Native students do not share. There are, however, at least two arguments to counter this claim. Since the faulted version is the teacher's, the Native pupils, by not repairing it, are implicitly acknowledging the teacher's normative right in the classroom to provide the proper gloss. Secondly, in other parts of my data I have examples of Native pupils correcting the teacher's incorrect formulation.

In summary I would like to suggest that by examining the actual talk of the classroom we can learn about Native school performance in a way which casts quite a new light on the typical concerns which social scientists have about the impact of cultural differences in school. Further, it suggests that we cannot

automatically move from a claim at the individual discourse level to a claim at the cultural group level. The latter does not necessarily follow from the former.

Conclusion

In essence this paper suggests that research into Native children's school performance must examine the "work" which both teacher and pupils do in a day's routine classroom activities. In this respect studying Native school performance is no different from studying any children's performance; in all cases we must describe and interpret the interactional work which creates performance, i.e. which counts as performance. My position is, in this sense, an extreme empiricist one. I believe that in order to begin to understand Native performance we must describe what Natives say and do in the classroom.

Some will argue that the kind of research I argue for here is open to two major objections: (1) the approach is reductionist, that is, all the "causes" of Native performance can be reduced to interactive style; and (2) the approach does not lead to generalizable findings. I plead guilty to both charges, but only with the following explanation.

The approach is reductionist only insofar as we insist that we confine our work to what is observable, what is hearable. This does not deny the existence of mental states or intentions, but merely argues that to rectify the unobservable is not helpful, useful or heuristic. It does not deny the existence of Native culture; I am simply interested in how such culture makes itself available to us through interaction in view of the fact this interaction is what we can observe, describe and interpret. A second important point is that it does not talk about causal relationships. Given our conceptualization of the qualitative differences between physical and social phenomena, I believe that description and interpretation exhaust the ontological constraints placed upon us as social scientists by social phenomena. Social phenomena are and must always "be grounded in the vagaries and ambiguities of commonsense" (Mehan and Wood, 1975:66).

In regard to the generalizability of findings, I would suggest that it is a mistake to believe that even the most statistically rigorous study of social phenomena provides us with generalizable findings. The logic of scientific inquiry, relating to causal relations and literal description, simply does not work with social phenomena. Social phenomena do not conform to either the law of identity or the law of the excluded middle. Therefore any generalizations about social phenomena which claim to be scientifically valid are either (a), distortions of the phenomena they claim to be discussing; or (b), are nothing more than commonsense generalizations. My approach is not to claim anything more than to be offering an interpretation of Native children's classroom talk as it is bearably describable; thus the phenomenon of interest, and the interpretation, are mutually constituting. My interest is in the methods people use to create social phenomena, and thus my "findings" are about the methods, or work which Native children and their teacher do in order to constitute Native performance. My interpretation is of an individual class and its members; Any generalizations from this instance to other instances is by way of logic and

commonsense, not science.

I hope that my argument in this paper regarding this approach to the study of Native children's interaction with the teacher in normal classroom activities will persuade others involved in education and cross-cultural research to give more attention to the ontological status of the phenomena of interest, particularly in regard to the limitations which this status imposes on the conceptualization of the phenomena, the methods used in their study, and the nature of the report of the "findings". Such increased awareness and reflection on the phenomena could very likely diminish to gap between theory and practice in studying the social world insofar as the indexical and reflexive nature of the relationship between theory and practice necessarily leads in this direction.

NOTES

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