This article reports the results of research carried out in London using five-year-old children of working class and middle class backgrounds. Speech samples were collected and compared on the basis of grammatical categories. It was discovered that working class children used more pronouns than their middle class counterparts in third person nominal groups. The middle class children's greater use of nouns was considered significant because nouns, in contrast to pronouns, can be expanded by modifiers and qualifiers and because their reference is more specific and does not make so many demands on the listener or assume any knowledge on his part. The author relates these findings to Basil Bernstein's concept of restricted and elaborated codes, demonstrating that working class children's speech has the characteristics of a restricted code (one used among small closely knit groups, where implicit knowledge of the speaker's intention is important for understanding), whereas middle class speech has the characteristics of an elaborated code, in which the speaker's intentions are made more explicit verbally without much reliance on other means of communication. The author believes that the working class child's reliance on a restricted code, traceable to
SOME LINGUISTIC CONSEQUENCES OF A WORKING-CLASS ENVIRONMENT.¹
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If a society aims to offer truly equal educational opportunities to all children irrespective of origin, it must take account of the values, and attitudes towards education, which are held by different cultural groups within the society, and then try to adjust its teaching to fit in with those attitudes. At the present time our knowledge of the values of cultural groups outside our own is not sufficient to enable us to be aware of the problems faced by the groups when their children are taken to school for formal education.

In this article I shall be discussing mainly social-class differences — the different values and attitudes of middle and working class people. I shall refer in particular to language problems, and indeed to the problems of analysing and comparing samples of language and the kind of information sought. I would like to begin by outlining briefly the sociological theory on which the research is based, and then describe in some detail our research project and some of its results. This project is currently being carried out by the Sociological Research Unit (S.R.U.) attached to London University's Institute of Education and directed by Prof. B. Bernstein.

The interest in language problems arises from the realisation that working-class children derive less benefit from the educational system than middle class children and are less able to 'manipulate' the system to their own advantage. A fair proportion of working class children achieve grammar-school places as a result of the now notorious 11+ selection system, but very few go on to get academic qualifications or places in a university. Thus, whereas about 70% of grammar-school children are of working class origin, and 30% middle class, in the universities it is the other way round; 70% of the students are from middle class homes, and only 30% working class. This apparent loss of talent on the way, the under-achievement of working class children, is generally regarded as undesirable, for both economic and egalitarian reasons.

What causes it? There are a number of material factors such as the parents' income (the children are sent to work as soon as possible, to provide extra income) and the home conditions — no facilities for doing homework, few books, too much noise, a temptation to play with the others instead of "swotting" etc. but these cannot explain the majority of cases. There are deeper psychological reasons for the relative failure of working class children and it is these which theories of language difference attempt to explain.

Between the 1930's and 1950's a number of studies compared the verbal IQ and non-verbal IQ scores of middle and working class children and showed that, whereas middle class children tend to have a verbal IQ roughly corresponding to their non-verbal IQ, working class children's verbal IQ scores are considerably depressed in relation to their non-verbal IQ. Thus children with high non-verbal IQ's who might be predicted to have high verbal IQ's as well are found to have average or even below average scores on these tests. These differences in performance seem to show that working class children are not lacking in inherited or 'native' ability but that their language faculties are not being developed to a sufficient extent.

¹ Revised version of a paper given to the Wellington branch of the Linguistics Society, 22/4/59.
For a review of the theoretical background and an account of some experimental work, the recently published work by Lawton should be consulted. Lawton bases his work on Bernstein's theory of 'restricted' and 'elaborated' codes and it is this theory which I now wish to discuss. I should say at this point that the theory is fairly complicated and rather difficult to unravel from Bernstein's own writings, so that what I shall give here is a broad outline, which may be doing something of an injustice to the theory, particularly to the sociological aspects of it.

A restricted code is the form or type of language which will occur among very closely-knit social groups, where the need to make explicit everything you wish to communicate is reduced, because the members of the group know each other so well. Examples of such groups in our society might be prisoners, army combat units, and married couples of long standing. The type of communication used among such groups depends not so much on words but on an implicit understanding of the speaker's intention which may be conveyed by gestures and facial expression as much as by actual speech. By comparison an elaborated code requires the speaker's intentions to be made explicitly, to be put into words and actually spoken, without much reliance on other modes of communication. Further characteristics of the codes are that in a restricted code the language serves to reinforce the solidarity of the group and to exclude outsiders, whereas an elaborated code lays emphasis on individual expression, so that the speaker is concerned to communicate his own opinion and not submerge it within the interests of the group.

It seems likely that most people have recourse to restricted codes in some of their social relationships, but Bernstein suggests that, whereas middle class people in general have access to both types of code, restricted and elaborated, certain groups of working class people, by virtue of the close-knit community they live in, may have access only to (one or more) restricted codes. Thus the type of social group or community determines the type of language the group will use, and this in turn will affect the attitudes to education and children's performance in school.

There are further characteristics associated with restricted codes which need to be mentioned. First, the type of authority within the family, exercised by the parents, will be different. In a close-knit group the individual will feel shame (i.e. responsibility to the group) rather than guilt which involves the internalization of values. Studies by Kohn showed that middle class parents tend to respond (to misbehaviour) in terms of the child's intent, whereas working class parents respond in terms of the immediate consequence of the act itself. Working class punishment is therefore likely to be random, and dependent on the parent's mood at the time. It may be physical, and if words are used at all, they will be commands or threats. Reasons are not likely to be given, except categoric statements like because I told you to. Middle class parents on the other hand are more likely to punish by withdrawal of privileges (e.g. 'if you don't behave I shan't take you to the Zoo') and to give explicit reasons so that the child eventually builds up a system of values.

Secondly, a close-knit group is not likely to encourage curiosity and the child's natural spirit of inquiry. The child will be encouraged to adopt the norms and values of

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the group, and not to explore outside these or set them in a wider context. The child’s questions will therefore be answered summarily if at all, and he will not be encouraged to ask further questions. By contrast middle class parents tend to encourage curiosity up to a point, and are willing to answer questions more fully.  

Thirdly, the child will be exposed to the speech of members of the group only. His linguistic experience will be narrow, confined to a relatively small circle of people. Middle class children on the other hand will have greater opportunity to meet and talk to strangers and thus widen their linguistic experience.

Fourthly, long term goals are less likely than immediate gratification because the general notion of the future is vague — dominated by ‘chance’ rather than planning. Since the level of the language code never gets as far as abstraction or generalisation, the attainment of distant ends by a purposeful means/end chain is just not considered. Nor is long-term planning encouraged by the typical employment/work patterns — routine jobs without promotion prospects, weekly payment of wages, and little mobility. By comparison, long-term goals will be the basis of middle class thinking and planning and at crucial moments these goals will be presented to the children explicitly.

Finally, it so happens that working class families tend to be larger than middle class families. This is not, I think, connected with restricted or elaborated codes but it does have the important consequence that these children tend to learn their language from other children rather than from the parents, and various studies have shown that for a child to make rapid linguistic progress, regular contact with adult speakers is essential.

We are now in a position to see why the working class child is at a disadvantage when he starts going to school. For the middle class child, school represents a continuation of the values he has already met with at home: the emphasis on curiosity and inquiry into the nature of things; the kind of authority exercised by the teacher, which favours verbally explicit reasoning with the child; and the long-term goals of formal education, which correspond to the long-term goals of middle class life in general.

For the working-class child, by contrast, school represents a radical break in the kind of environment he has been brought up in. Formal education requires him to be curious, inquisitive (in the best sense); to respond to a kind of authority he is not used to; and to adopt long-term goals, i.e. to realise that the hard work he does at school is ultimately for his own good. Most of his teachers are middle class people, and however sympathetic they may be, they will take for granted the very foundations of their own culture, and not realise that for working class children the foundations are quite different. In these circumstances, it is not really surprising if working class children do not take to formal education happily, nor respond to the teacher’s authority in the way she expects. This is why these children are often described as ‘rebellious’, ‘uncooperative’ or just ‘unresponsive’.

Let us next turn to the considerations of language. We are now in a position to remove two possible misconceptions. Firstly, the difference in the mode of speech between working class and middle class children is not just a dialect difference, in the generally accepted sense of the term. We are not going to make any significant alterations  

to the working class attitude by teaching the children to say 'he hasn't got anything' (or, even worse, 'he hasn't anything') instead of 'he ain't got nothing'. Secondly, we are also not going to make any appreciable difference by teaching them extra vocabulary, if they never have any motivation to use it. We must first of all begin by ascertaining what linguistic differences exist, and by this I mean particularly structural differences; and it is only when we have this knowledge that we can begin to do anything about it.

If Bernstein's theory is in fact correct then there should be observable differences in the use of language by speakers of restricted and elaborated codes, and therefore by taking samples of speech and comparing them we should be able to find whether there are differences, and if so what they might be. Bernstein predicts the following linguistic characteristics of a restricted code:

1. Short, grammatically simple sentences with verbs mainly in the active mood.
2. Simple and repetitive use of conjunctions (so, then, and, because).
3. Frequent use of short commands and questions.
4. Rigid and limited use of adjectives and adverbs.
5. Infrequent use of impersonal pronouns as subject (one, it).
6. Tag clauses designed to elicit the sympathy and agreement of the listener, e.g., isn't it?, aren't they? doesn't he?, you know, you see — these are called socio-centric sequences.
7. Categoric statements used for reasons as well as conclusions, e.g., because I say so; you're not going out; do as I tell you; don't do it.
8. Abstract thinking limited to quotation of proverbs and sayings.

By contrast, the characteristics of an elaborated code will be:

1. A more complex sentence construction, expressing logical relationships by means of a range of conjunctions and relative clauses.
2. Frequent use of prepositions indicating logical relationships as well as time/space prepositions.
3. Use of impersonal pronouns it, one.
4. Wide range of adjectives and adverbs.
5. Individual qualification of statements by clauses e.g. I think, I suppose, I expect, I guess, I presume — these are called ego-centric sequences.

Experimental work to test these hypotheses has been carried out by Bernstein,\(^7\) Lawton,\(^8\) and Robinson.\(^9\) Bernstein took two groups of 15 year old boys, one of working class origin (messenger boys) the other middle class (pupils at a 'public' [N.Z. 'private']

\(^{6}\) Bernstein, 1959.
\(^{7}\) Bernstein, 1962b.
\(^{8}\) Lawton, 1968.
\(^{9}\) Rackstraw and Robinson, 1967a and b.
The first control group was necessary to assess the influence of the 'Hawthorne effect'; the second to control for normal development during the period of the programme. The experimental programme was implemented by the class teachers themselves, under the guidance of two psychologists from the S.R.U.. The teachers devoted 20 minutes a day to it, for a year and a half. IQ tests were taken at the beginning and towards the end. They indicated that the IQ's of the 'normal development' group had declined slightly, as predicted. The IQ scores of the experimental group however were maintained, but the picture is complicated by the fact that the 'Hawthorne effect' group also maintained its IQ. In general the experimental programme benefited high IQ children more than low IQ children, and girls more than boys.

The other part of the project was to collect and compare speech samples from children of different backgrounds. Two samples were collected, the first at the age of 5, the second at 6½ (from a smaller number of the same children). 300 working class children aged 5 were drawn from an Eastern district of London, and 150 middle class children of the same age from a South-Eastern suburb. The children were given an individual interview (which was taped) lasting 20-25 minutes, during which they had a number of tasks to perform, all of which involved speech to some extent. One task, for example, gave the children a series of pictures and asked them to narrate the story; another gave them brightly coloured postcard reproductions of paintings and asked them to describe what was going on in the picture. The interviews were then transcribed in traditional orthography, though with as many 'phonetic' features noted as possible, e.g. false starts, um, er, etc..

The linguistic analysis we used was basically a 'Scale and Category' one, adapted to meet our own requirements. This approach was used in preference to a generative one, mainly because British linguistics has always been oriented towards textual analysis and the techniques have therefore been developed in this direction. This meant that our model was essentially a surface grammar, but one can argue that it is better to start with a surface analysis anyway, and later extend it to a deep analysis in areas of particular interest, where differences have been found. Of course it is always possible that a surface analysis will obscure a deep-level difference, or, conversely, throw up a difference which is unimportant at the deep level; but this is a risk that has to be taken.

We had so much data that a computer program was necessary to analyse it. This meant that each sentence uttered had to be reduced to a string of symbols, and this was done on the basis of choices taken at each rank in the grammar down to 'group' i.e. at the ranks of sentence, clause and group. To give a single example, the sentence

three boys broke the window

is analysed as a Sentence of type 1 (non-textshifted, non-reponse), a Clause of type F1 (free clause, declarative), containing the groups Subject, Predicator and Complement. The Subject consists of a Modifier of the class Ordinative, and a Head of the class Noun, while the Complement consists of a Modifier of the class Determiner, type 8, and a Head

12. An improvement in a group's performance or productivity brought about simply by the focussing of special attention (by an 'outsider') on the group and its performance, and first noticed in experiments at the Hawthorne factories in the U.S. during the 1920's.
13. The original intention of the project, to make a longitudinal study as well, had to be modified.
14. For an account of 'Scale and Category' roughly similar to the model we used, see Scott, Bowley et al., 1968.
15. This is the generally accepted spelling of 'program' in the context 'computer program'.
school) and recorded a discussion on capital punishment, which was a topic prominent in the news at that time (1960). An analysis of the text showed the middle class group used more ego-centric sequences (I think etc.), the working class more socio-centric (isn't it, aren't they, you see etc.); the middle class group also used a greater number of subordinate clauses; complex verb stems; passives; uncommon adjectives, adverbs and conjunctions; the preposition 'of'; and the pronoun I. Working class groups used more personal pronouns, particularly you and they.

Lawton repeated this experiment with 15 year olds and 12 year olds, and found similar differences. He also took written samples of language and compared them; and found the content of middle class essays to be much more abstract and generalised.

There are three things to be noticed about these experiments; first the number of subjects was small – only 25, split into 5 different groups according to social class and IQ. Second, the evidence is based on statistical, not absolute differences. This is an important point because it means that we are not looking for absolute differences, which would be impossible to find. It is quite obvious that the working class, however different their language code may be, are still speaking English, and therefore to some extent the frequencies of grammatical items are going to be similar. We are therefore looking for items in which the usage differs significantly (and by this I mean statistical significance) beyond what would be expected by chance.10

Thirdly, the linguistic techniques themselves can hardly be described as sophisticated. Bernstein, Lawton, etc. are primarily sociologists and their evidence tends to be based on counts of nouns, adjectives, subordinate clauses and so on. Lawton’s most advanced technique was to use the Loban score of subordination, an index which can easily be shown to have no theoretical foundation whatsoever. Most studies of language differences both in Britain and the United States have been based on poor linguistic techniques, but it is one thing to make this criticism and quite another to suggest what can be done about it. There is as yet no known technique developed for comprehensively analysing a given text, for the simple reason that all the factors involved have not yet been isolated in a comprehensive theory.

This brings me to consider the S.R.U. project, which in its techniques of analysis can claim to be more advanced than most projects to date, though they would not be called ideal by any self-respecting linguist.

The project aims to study language differences at an early age, to discover what differences exist among children right at the beginning of their school career, that is at the age of 5. The project was also obliged to undertake an ‘intervention’ programme, that is a special programme of ‘language enrichment’ to be carried out in some of the working class schools, to see if any improvement could be achieved, by getting the children to use language in a variety of situations. The results of this intervention programme are well worthy of study, but can only be briefly mentioned here.11 One experimental group of 40 children was compared with two control groups, each of 40 children.

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10. The minimum level for significance is usually taken to be 5% that is, only one chance in 20 that the two samples might be from the same ‘population’. A level of 1% (i.e. only one chance in 100) is considered ‘highly significant’.

of the class Noun. The Predicator is a verbal group of tense type 01 (simple past). Group boundaries are marked by /1, Clause boundaries by /2, Sentence boundaries by /3. Given this information, the above sentence can be analysed as S1F1 SMO/HN/1 PT01/1 CMD8/HN/3. This analysis tells us that at least eight types of Determiner have been recognised, whereas Nouns at Head have not been subdivided into Mass, Count, Animate etc. Once decisions of this sort have been taken, a coding manual can be prepared, and it takes about a fortnight to train an intelligent person to operate it and convert utterances into symbols.

Writing a computer program to handle these symbols and count different kinds of occurrences took a whole year. Over 350 grammatical categories had to be counted, and as the computer gave us the results for each child separately, there was still a lot of statistical analysis to be done even after this. Not all the children interviewed were analysed, however, but a sub-sample of 110 was taken, which matched groups of children for social class, sex and IQ. It is interesting to note here that even at the age of 5, it was impossible to find sufficient middle class children of low IQ - the sample should have been 120, not 110.

The results of all this work were, it must be admitted, somewhat disappointing. Many of the grammatical categories were used very infrequently, so rarely in fact that it was pointless to use them for statistical tests. Many of the more frequent categories revealed no social class differences of any magnitude, but one area of the nominal group looked promising and was subjected to more detailed investigation.

What we found was that working class children were using more pronouns at the Head of the nominal group, while the middle class were using more nouns. A closer study revealed that the difference was not in first or second person pronouns, but in third person pronouns only. This was thought to be of some importance, because the use of a pronoun is restricting in a way the use of a noun is not. It is virtually impossible to modify a pronoun, since we do not have constructions such as the he, two they etc., and pronouns may take a very limited range of qualifiers; just words like all, both as in they all, they both. Nouns, by contrast, may be modified and qualified almost without limit. Consider the modifiers and qualifiers of trains in

the two black smoking railway trains which had just pulled out of the station

The middle class children, then, by using more nouns and fewer pronouns, are opening up for themselves the possibility of expansion on a much wider scale, whereas the opportunities for the working class who rely on pronouns are more restricted.

But the consequences of this difference go further than this. We need to know the kind of situation in which first-person pronouns, rather than nouns, are being used. It might be the case, for example, that middle class children are producing sentences like

the boy kicked the ball / and the ball broke the window

whereas the working class are substituting it for the second occurrence of the ball and are thereby conveying the same meaning more concisely. Compare, on the other hand, the two (somewhat exaggerated) versions of the same story below (the picture-story on
which they were based is reproduced on p. 48), parallel in clause structure, but the one using nouns, the other pronouns.

(1) Three boys are playing football and one boy kicks the ball and it goes through the window the ball breaks the window and the boys are looking at it and a man comes out and shouts at them because they’ve broken the window so they run away and then that lady looks out of her window and she tells the boys off.

No. of nouns: 13 No. of pronouns: 6

(2) They’re playing football and he kicks it and it goes through there it breaks the window and they’re looking at it and he comes out and shouts at them because they’ve broken it so they run away and then she looks out and she tells them off.

No. of nouns: 2 No. of pronouns: 14

There is a difference here, not only in the amount of elaboration of the nominal group, but also in the amount of information communicated. The first version explicitly states who performed the various actions and what objects or persons were affected by them. This version can be immediately understood and interpreted, even without reference to the pictures themselves.

The second version however makes enormous demands on the listener. It means that the context (in this case the series of pictures) must be present if the listener is to make any sense at all out of it, and assumes that the listener can see the pictures described, or knows enough about them not to need any information about the participants.

If we can show that the second version is typical of working class speech, whereas the first version is associated with the middle class, we then have some evidence in support of the ‘restricted and elaborated code’ theory because this is exactly what the theory predicts — namely that in a restricted code, individual meaning is not made explicit because it is assumed that the listener will know what you are talking about.

Can we show, then, that the pronouns the working class use are frequently employed in this way? To do so we must invoke the concept of reference which is the subject of a recent paper by Ruqaiya Hasan. Reference is used to help achieve cohesion within a text, and falls basically into two types, reference backwards which is known as ‘anaphoric’ reference, and reference forwards which is known as ‘cataphoric’. Examples of their use are:

(1) anaphoric: the boy kicked the ball and it broke the window (where the pronoun it refers backwards to the ball)

(2) cataphoric: it was difficult not to break the window (where it refers forwards to not to break ...)

Anaphoric reference is much more common than cataphoric, and may be applied to a variety of grammatical categories, mainly pronouns but also to determiners like this, that. There is however a third possible type of reference and that is ‘outwards’, to the ‘context of situation’, which is known as exophoric reference. In this case the pronoun or similar item refers not to something in the text but to something in the speaker’s environment, for example a cry like ‘they’ve scored!’ at a football match, where there is no doubt who they refers to.

The pronouns in the second version above were mostly of the exophoric type, referring to items in the pictures which the listener is supposed to know about. Those in the first version, by contrast, are all anaphoric – the things they refer to have already been specified. What we want to show, then, to support the ‘restricted code’ theory, is that the working class use more exophoric pronouns than the middle class.

The further studies we carried out demonstrated this conclusively. Not only do the working class children use more exophoric pronouns, but many other items which could have exophoric reference were given it. By contrast the middle class used such exophoric items relatively infrequently and as a result their speech was much more comprehensible.

Now it may be argued that this has not really proved anything, firstly because the situations analysed are very small and restricted and are difficult to generalise from, and secondly because the working class children were merely taking advantage of the situation as they found it – the interviewer was there with them, so why bother to specify the participants if she could see them? To take the second criticism first, one could argue that this is exactly the point we are making. The fact is that all the children were put in the same situation; and given the choice, the working class group chose a lot of exophoric reference, the middle class chose to be more specific by using nouns. It is the very choice itself which is significant in this context – why should the two groups give different interpretations, unless there were something in their linguistic background to induce them to do so?

To take the other criticism, that the situations are of limited scope: admittedly, the spoken material consists of an average of only 30 clauses per child, and includes only two tasks of the interview schedule, the two (out of six) which gave the most speech. Nevertheless, all studies of this nature, in which two groups have to be put into the same situation, are bound to be limited in context; to compare speech samples without controlling for situation would be pointless, unless a huge corpus covering many possible situations was amassed.

The concept of reference, which we invoked, is one that can well be applied to many other situations, and indeed can be exploited further, because it is not restricted only to pronouns. There are other grammatical classes which involve its use, e.g. determiners like this, these, that, those and especially the; and the locational adverbs here, there. Our study included these determiners except the, and the locational adverbs, and in each case we found far more frequent use of these items with exophoric reference among working class children. The version of the story, above, which used pronouns, was not far from reality for some of the working class children in our sample. This finding then, may help to explain why working class language is sometimes thought to be unintelligible, even when the words themselves can be understood. If the explanation
is not complete, (and it most probably is not), at least a method of approach has been suggested — namely, to study texts from the standpoint of cohesion, so as to find out how the texts succeed or fail in being cohesive, and hence coherent.

How does it come about that children use exophoric reference? A number of American studies from McCarthy onwards have shown that the frequency of pronouns declines as linguistic development proceeds, so that under 'normal development' (presumably this means middle class development) there is a decrease in the use of pronouns from the age of 3 or 4 onwards. This, it seems to me, may be connected with the level of pronoun-usage the mother will tolerate. Mothers who insist on their child being specific, by regularly responding to a 'he's broken that' with a 'who's broken what' will eventually induce the child to replace he and that with that boy who came and the vase. Mothers who tolerate exophoric pronouns, on the other hand, will continue to get exophoric pronouns.

The greater use of nouns by middle class children is therefore important for two reasons, (1) because they can be expanded by modifiers and qualifiers and (2) because their reference is more specific and does not make so many demands on the listener nor assume any knowledge on his part. To this we may add the facts that nouns are the basic grammatical category in any language and that in English nouns and nominalizations are coming to play an increasingly important part at the expense of the verb. We no longer dine, we have dinner; likewise, we do the washing, have a bath, and go for a drive. And in scientific and technical English, nominalised forms proliferate. The child who misses out on nouns right at the start, then, is going to be at a disadvantage all the way through.

Finally, a word of caution in the interpretation of these findings. There is no longer (if there ever was) a clear division of the population into middle and working class. Black and white have become innumerable shades of grey. Many traditional working class families are adopting middle class values and living in a middle class environment. We classified families along a ten-point scale based on occupation and education of both the father and the mother, and our results are therefore correlations: the lower one goes on the social scale, the more exophoric pronouns and the fewer nouns the child is likely to use. All working class children used some nouns and most middle class children used some exophoric items. There is no absolute difference between the two classes — indeed, it would be difficult to imagine there could be, but the differences that do exist are statistically significant and therefore worth taking account of.

This study was carried out in urban London. Can the findings be applied to New Zealand? It certainly seems possible. The conditions under which restricted codes are likely to arise, are either a homogeneous working class community, in the city, or relatively isolated rural groups, where restricted codes are particularly likely to be found. The cities undoubtedly have districts which are predominantly working class and I have also heard of culturally retarded rural areas. Class differences here, as in England, appear to be social and cultural rather than economic. If the social conditions exist, then, it is certainly possible that groups confined to a restricted code will be found. I do not know enough about New Zealand social structure to say more than this, at present.


