

Ways of Meaning, Ways of Learning: code as an explanatory concept

RUQAIYA HASAN, *Macquarie University, Australia*

ABSTRACT *The aim of this paper is to offer further empirical evidence in support of Bernstein's concept of code from the social semiotic perspective of systemic functional linguistics. When the concept of code was first introduced in the 1960s, it was severely criticised by many famous socio-linguists. It will be argued that these socio-linguists failed to understand the significance of language as a meaning potential, and so they also failed to appreciate the inherent relation between meaning and mental development (Halliday, 1975; Vygotsky, 1978). The concept of code is important in any viable theory of mental development which does not hide behind a mythical homogeneity. Human beings develop different forms of consciousness, and code theory offers a detailed and coherent account of both the social origin and the nature of this variation. In fact, the panoramic scope of Bernstein's sociological theory clarifies the relations of social positioning, coding orientation, communication, and consciousness to learning in official pedagogic sites.*

In presenting some of the results of my investigation in variant forms of communication between mothers and their young children, I will show that: (a) the variation is systematic, (b) the nature of the variation needs Bernstein's code theory for its interpretation, and (c) the fact of variation can only be accounted for by its relation to social positioning.

... codes transform distributions of power and principles of control into pedagogic communication. Codes attempt to suppress contradictions, cleavages and dilemmas in the external order (classification) and set up psychic defences for intra-individual order through the insulation (boundaries) they produce. *But code acquisition necessarily entails both the acquisition of order and the potential of its disturbance.* (Bernstein, 2000, p. 203; original emphasis)

As members of the human species we possess an almost unlimited potential for learning: in this sense, the world is truly our oyster. However, what we actually learn in our lifetime is typically constrained by our social location, a problem that demands explanation: why and how does social location intervene in constraining what is learnt by whom? This question formed an important part of the research agenda in Basil Bernstein's working life (Bernstein, 1971, 1975, 1990, 2000). Of course, one's social

location is not inalterable, as Bernstein took great pains to point out, but the conditions for such changes are fairly stringent, which may or may not be met. These conditions have little to do with our supposedly 'innate' mental capacities: in fact, recent research in the development of human brain reveals that at birth we have yet to acquire a 'mind' (Deacon, 1997; Greenfield, 2000; Boncinelli, 2001): our most precious biological assets—the plasticity of our brain and its potential for forming billions of connections—make us uniquely dependent on the social for turning that powerful brain into a usable mind. It thus transpires that the two basic supports of our existence, the biological and the social, are linked by a co-genetic logic, and what forges this link between the two is our capacity for semiosis—for making meanings by the use of shared symbolic systems. Through centuries of evolutionary trial and error, the human brain is predisposed to make sense of symbols and, among the various symbolic systems, language, due to some of its defining characteristics (Deacon, 1997) proves crucial in the enterprise of linking the biological and the social: to gain consciousness, to become a usable mind, the human brain needs experience, and language acts as a uniquely effective, immensely supple means of construing experience by acts of meaning (Halliday & Matthiessen, 1999). So, if we wish to answer our question—why and how does social location intervene in constraining what is learnt by whom?—we will need a theory that is sensitive to the complex interactions of language, culture and consciousness, for although learning is achieved by individual minds, the minds themselves are fashioned socially by means of semiotic mediation, which means largely through discursive interaction.

From this perspective, Bernstein's code theory is exceptional. For a serious sociolinguist, it is perhaps the only sociological theory that takes the power of language seriously enough to give it a definite place in his theory; and this theory has been deeply concerned with the relations of culture, communication and consciousness (see, especially, Bernstein, 1971, 1982, 1990, 2000). It thus represents a powerful resource for examining the complex interplay of the factors active in the formation of consciousness and the unequal distribution of knowledge. Developed and refined over decades, it describes on the one hand the dialectic of semiosis and consciousness, and on the other it traces the relevant macro and micro social phenomena, identifying the attributes of the social system that enable social processes. The present paper is not intended as a potted history of the development of Bernstein's code theory, as excellent and authentic accounts of this can be found in Bernstein (1990, 1996, 2000), which present particularly lucid accounts of how social class, social practice and forms of human consciousness are socio-logically related. My aim in this paper is to show the power of the concept of code in explaining systematic variation in the meanings people habitually mean, an enquiry that was inspired by Bernstein's writings on the relations of coding orientation to knowledge distribution in modern societies (Bernstein, 1971, 1975).

I am aware of the various pejorative readings of the code theory, but again this is not the appropriate place to deconstruct them: to my mind, these (mis-)readings told us more about the standards of academic (il-)literacy than they did about the nature of the code theory. For, indeed, the potential of the theory was quite obvious from its early stages (Bernstein, 1965; Halliday, 1973a; Hasan, 1973). Certainly there were problems with the data—the data used in the Sociological Research Unit research was collected via questionnaires and interviews (for some details, see Bernstein (1973)), and so it did not represent naturally occurring language in the contexts of everyday life. The second major point of code criticism was that the linguistic evidence was not valid. Again it is true that much of the lexical and syntactic evidence that was cited (see Bernstein, 1971, 1973, 1975) could not be easily interpreted as decisive instantiation of code varieties. But a

thoughtful reading would have conceded that the problem lay largely with the linguistic models, none of which offered any viable resources for the analysis of meaning in discourse, and Bernstein's code theory is above all concerned with orientation to meaning and with the internalisation of orders of relevance (Bernstein, 1990). If one wished to cite evidence for how coding orientation may activate social subjects' selection and organisation of meaning, subjects' judgements of what is or is not legitimate social practice, then clearly counting morphemes and words defined by their grammatical status was not going to be much help. What was needed was the ability to relate grammar and semantics in a non-*ad hoc*, systematic manner; linguists needed to offer Bernstein a theory of grammar as a resource for meaning. As systemic functional linguistics has shown, it is the nexus of grammar with meaning, as manifested in discourse in social life, that is crucial to the formation of consciousness, and the latter is an essential element both in the reproduction of society and of social change. Meaning is thus critical to the very concept of Bernstein's code theory. But systemic functional linguists as yet had no coherent theory of semantics, while formal semantics was largely unusable in the analysis of discourse.

To me this situation presented a dual challenge: a challenge to produce a linguistic tool capable of such an analysis of discourse in social life, and a challenge to mount an investigation that would examine whether and to what extent the linguistic form of social interaction was instrumental in the formation of consciousness. In the rest of the paper, I want to present briefly an account of this research. My research project should not be seen as one that explores all the complex relations outlined by Bernstein in the explication of his code theory (Bernstein, 1971, 1982, 1987): this would be a daunting task for any single research effort (see Hasan (1999) as a linguist's account of the full architecture of Bernstein's theory). As a linguist, my interest and my training prepared me to explore that element of the code theory that is concerned particularly with the relation between forms of linguistic communication and forms of consciousness. Accordingly, the major questions that the first phase of my research asked were:

- Q1. Do mothers from different social groups/classes systematically vary in the meanings they habitually mean in talking to their three and a half-year-old children?
- Q2. If the answer to Q1 is 'yes', then: (a) does the experience of participation in different semantic varieties manifest itself in children's own ways of meaning; if so how; and (b) how can these patterns of variation be explained? What is/are the activating factor(s)?

By interrogating the results of the analysis of my data from these points of view, I hoped to be able to show whether variation in forms of communication is particularly responsive to social positioning (Bernstein, 1990), and by comparing the maternal sayings with those of the children, hoped to find some indication whether the active experience of fashions of speaking has any bearing on forms of consciousness. If there is a significant correlation between the semantic styles of the mothers and the children, this could be taken as a confirmation of Bernstein's claims about codes, communication and consciousness (Bernstein, 1971, 1990, 1996).

Beginning in the mid-1980s, with Carmel Cloran's able assistance, I directed such a research project over a period of some 6 years, entitled 'The Role of Everyday Talk between Mothers and Children in Establishing Ways of Learning' (for details, see Hasan, 1989, 1992; Hasan & Cloran, 1990). As for the tool for analysis, the main inspiration came from the systemic functional model, with its emphasis on meaning and its system-oriented description. Although Bernstein had been working as early as the 1960s

with the network representation of behavioural choices in specific contexts such as that of control (Bernstein & Cook-Gumperz, 1973), my own inspiration came from the seminal work of Halliday (1973b) and Turner (1973). The former, in particular, showed how the selection and organisation of meaning can be systematically related to lexicogrammatical resources. It thus served as the starting point for devising a semantic system network, which represents, up to a certain degree of detail, the meaning potential and the grammatical resources for its realisation, available to speakers of English in the environment of everyday discourse. Bernstein's (1971) early work in the area of socialisation and code varieties suggested that the principles governing systematic variation in the distribution of knowledge had to be inculcated at the early stages of life, where identities are formed, desires acquire legitimacy, and orders of relevance become established. Accordingly, the children selected to participate in my research were quite young (3 years 6 months–4 years old; mean age, 3 years 8 months). The theory stipulated further that underlying the systematic variation in learning are relations of power and control in society: as Bernstein put it:

'Class relations' ... refer to inequalities in the distribution of power, and in the principles of control between social groups, which are realised in the creation, distribution, reproduction, and legitimation of physical and symbolic values, that have their source in the social division of labour. (1990, p. 1)

Keeping this in mind, the 24 mothers participating in the research were selected from families that were evenly divided between dominating and dominated social groups. The specific parameter taken as the indicator of domination was the degree of control on the workplace environment: the greater the possibility for making policy changes, and for passing on executive decisions to others as instruments for carrying them out, the more dominating the professional location. The dominating professions were referred to as Higher Autonomy Professions (HAP) and the dominated ones as Lower Autonomy Professions (LAP). To ensure the naturalness of the data, the mothers were requested to do the recording themselves. No contextual restrictions were placed; mothers were free to record at any time that suited them so long as they varied the time of recording and so long as they did the recording while carrying out their ordinary day-to-day household jobs. Some 100 hours of naturally occurring conversation was collected. When this data was examined from the point of view of what was going on at the time of these talks, three material situational settings were found to be in common to all mothers: (a) giving care to the subject child (such as bathing, providing food, putting the child to bed), (b) engaging in some cooperative activity with the child (such as tidying up a room, reading a book or playing a game together), or (c) carrying out some household jobs (such as cooking, cleaning, washing up) while the child simply hung about. Since the analysis was to be made in terms of a large number of semantic variables, say around 50, a representative sample was constructed taking just over 55 minutes per dyad divided as equally as possible across the three material situational settings described earlier. This sample consisted of just over 20,000 messages, each of which was analysed using the categories of the semantic network.

Rather than undertake here a step by step discussion of how the semantic analysis was carried out (for this, see Hasan 1989, 1992), I want to present a brief semantic profile of my data, whereby I hope to show specifically what kind of information is distributed how and where during the mother–child interactions. I will initially identify two modes of meaning habitually displayed by the mothers: both are active in enabling the children to internalise experience and to make sense of their social world, but in different ways.

I will refer to the two modes as (i) *informative mode* and (ii) *formative mode*. Neither of these corresponds exactly to any category suggested by Bernstein but the conceptualisation of both resonates with his views, as my comments during the discussion of these two modes will show. Indeed, Bernstein's insights and predictions regarding code-governed selection and organisation of meaning are strongly supported by my research. Let me begin then with some actual extracts from the data [1].

Extract 1

- Mother:* (1) ... you were certainly very brave
Cameron: (2) (? I wasn't) very brave
Mother: (3) yeah you were brave (4) you mightn't think you were brave (5) but I think you were
Cameron: (6) what for?
Mother: (7) because you acted in a very brave way
Cameron: (8) **no
Mother: (9) **you hurt yourself (10) and you cried (11) and that's good to cry (12) when you hurt yourself (13) but you only cried for a little while (14) and then you climbed back on your bike
Cameron: (15) **and didn't—
Mother: (16) **and when you were a little boy (17) you know what you would have done?
Cameron: (18) what?
Mother: (19) you would have run back to mummy (20) crying really loudly (21) shouting (22) and you didn't do that (23) you acted like a big boy
Cameron: (24) yes
Mother: (25) you got hurt (26) so you cried (27) because you were hurt
Cameron: (28) yeah
Mother: (29) and then after a little while you stopped crying
Cameron: (30) yes
Mother: (31) that's what big boys do
Mother: (32) yeah

Extract 2

- Mother:* (1) ... when you plant seeds from mandarins or oranges (2) sometimes you get very strange fruit (3) or sometimes you don't get much fruit at all (4) so you have to plant a tree that's been grafted—that's been stuck on (5) they're special trees that they make (6) by sticking one tree to another tree
Stephen: (7) how do they stick it?
Mother: (8) well, I think they cut it in a special way (9) they cut them in a special way (10) and they put them together (11) and then they bind stuff around the outside (12) to hold them together (13) till they grow together ... (14) they eventually grow together the same way as when ... (15) if you cut yourself (16) the skin grows back together again, doesn't it? (17) the two pieces of skin grow together again (18) well the tree—the two bits of the tree grow back too

Extract 3

- Mother:* (1) do you love daddy?

- Julian: (2) mm
 Mother: (3) do you love Rosemary?
 Julian: (4) no
 Mother: (5) why don't you love Rosemary? (JULIAN LAUGHS) (6) why don't you love Rosemary? (JULIAN CONTINUES TO LAUGH) (7) you're a [ʔ ratbag] (MOTHER REALISES JULIAN WAS TEASING)
 Julian: (8) I do
 Mother: (9) (ʔ)
 Julian: (10) who else do you want me to love?
 Mother: (11) you can love whoever you want to
 Julian: (12) can I love Peter? ... (13) can I?
 Mother: (14) no (15) I think that's more like friendship
 Julian: (16) pardon
 Mother: (17) thought you'd say that (18) it's like friendship, isn't it? ... (19) you're friends with Peter, aren't you?
 Julian: (20) yep ... (21) mum!
 Mother: (21) yes
 Julian: (22) when I get as old as you (23) and (ʔ Maree likes me) (24) could we marry each other?
 Mother: (25) no (26) because Maree is your cousin
 Julian: (27) oh
 Mother: (28) cause cousins aren't allowed to marry
 Julian: (29) why?
 Mother: (30) cause the law says they're not
 Julian: (31) who's that?
 Mother: (32) the law?
 Julian: (33) yeah
 Mother: (34) the policeman ...

First, the informative mode, as is illustrated by Extract 1. What the mother is doing here is informing the child about certain concepts, which happen to be descriptive and evaluative. She is telling Cameron what it means to be described as 'a big boy', or as 'brave'. *The informative mode is an explicit mode of attempting to inculcate some concept, irrespective of the domain within which the concept is located.* This mode fits into Bernstein's category of *elaborated code*, especially if the explicit-implicit axis of differentiation is taken as crucial (Bernstein, 1971). In Extract 1, Cameron's mother explicitly identifies the child's behaviours to which the terms refer; the concepts she tells Cameron about pertain to the communal domain of life. In Extract 2, the same mode is used, but here Stephen's mother explains the concept of 'grafting' as used in the specialist field of horticulture, a domain regarding which the child has no practical experience. She recontextualises the information, so that it becomes immediately accessible to Stephen: 'if you cut yourself, the skin grows back together again, doesn't it? the two pieces of skin grow together again, well the tree—the two bits of the tree grow back too'. In both extracts the discourse is about something, be it part of specialist knowledge or an everyday concept such as acting like a big boy. The informative mode as used by mothers in conversation with their children can also be seen as resonating with Bernstein's concept of *local pedagogy* (Bernstein, 1990), which may be interpreted for our purposes as the transmission of knowledge within the contexts of everyday life (but see later comment). One respect in

which Extract 2 differs from Extract 1 is that the information transmission in Extract 2 can hardly be distinguished from the instructional component of official pedagogic discourse for young children. Two issues are particularly relevant to the informative mode: what is the framing like, and how extensive is the pedagogic segment? In my research, the dominating group shows weaker framing and a greater readiness to continue with the informative mode (Cloran, 1999; Hasan, 2000, 2001). This finding is entirely in keeping with Bernstein's predictions (1975, 1990, 1996): weaker framing characterises dominating code modalities [2].

The mode I have called the formative mode is formative in the sense that, rather than instilling particular pieces of information, *it functions as a way of setting up interpersonal relations between the discursive dyads*. The two modes are not mutually exclusive: it is not that one mode characterises one group of speakers, and the other, another group; in fact, the two modes can occur within the same discourse. Extract 3 illustrates the complexity of the simultaneous play of these two modes. Ignoring for the moment the Rosemary episode, turn to messages (12)–(34). Here, the mother is providing information on three issues: (a) whether Julian can love a male friend, (b) whether he can marry his cousin Maree, and (c) who in the community represents legal authority. I am not concerned here with evaluating the items of knowledge that the mother provides: from some points of view, each is 'defective'. Some of us certainly believe that love is not restricted to members of the opposite sex, marrying a cousin is not illegal, and the police do not make the law, although they do have the reputation for maintaining it. The correctness or otherwise of information is an issue that is not relevant to my discussion here; nor does it matter that the three segments are less extensively developed than those in Extracts 1 and 2, although this is a significant parameter of variation between social groups (see Cloran, 1999). For a discursive mode to be informative, the information does not have to be extensively developed or to be factually correct, whatever the standards of correctness applied. That Julian's mother is explicitly telling him about the legal boundaries between love, friendship and marriage is all that matters for taking it as a case of the informative mode, and from this point of view, messages (12)–(34) of Extract 3 are like Extracts 1 and 2: they all provide information in an explicit manner on specific topics.

To see the working of the formative mode, take the earlier part of Extract 3, especially the mother's repeated question 'why don't you love Rosemary?' (messages (5) and (6)). Here the mother is not giving information, but seeking it. Of particular interest is the form for seeking information: the question is framed in the negative. In my semantic network, negation in certain question types (yes/no or why/how questions) realises an important choice, referred to as *assumptive*. A question with this feature does not simply seek information; it implies that the information sought is already known to the enquirer and that its nature is pre-determined. So whenever an assumptive question is asked, there is an explicitly worded meaning; namely, this or that information is needed, as for example: 'I am seeking an explanation for the fact that you don't love Rosemary'; but there is also an *implicational meaning*, which is not worded, but simply implied. In our example, the mother's question implies: 'I believe you *should* love Rosemary'. One might think the distinction between explicitly worded and implied meaning is too subtle to make any practical difference, especially to very young children, but note Julian's uptake on this assumptive question: he asks his mother 'who else do you want me to love?' (message (10)). This shows that, at some three and a half years old, he had already got the covert message. The asking of an assumptive question implies that the enquirer presumes to know what the addressee's mental map is or should be like. The personal

distance between them is greatly reduced: the mother is here behaving on the assumption that she and the child share the same experiences, expectations and mental maps.

The semantic feature *assumptive* is not the only feature construed by implicational wording. Here is another example, again involving questions. Compare two questions: (i) 'are they leaving?' and (ii) 'did you know they are leaving?'. The first question seeks information about some state of affairs in the external world of our experience, and the second seeks information about the addressee's mental state: did the addressee know something or not. In the semantic network, this attribute of questions is referred to as *prefaced*: a preface such as 'did you know?', 'do you remember?', 'did you see?', 'would you like?' implies that the enquirer does not presume to know what the addressee knows, remembers, sees or likes; the addressee's mental map is an unknown territory. The mother who asks 'did you know they are leaving?' is not assuming a similarity of knowledge, feeling and expectations: it is as if there exists a personal distance between the two, which means that reliance must be placed on discourse as a means of bridging the distance. It is perhaps obvious from this account that the two semantic features of questions—*assumptive* and *prefaced*—are mutually incompatible so far as an individual's orientation to meanings is concerned: speakers who *habitually* use one feature are not likely to use the other. The features point to different expectations about one's relations to the other. In terms of the early code theory (Bernstein, 1971), these two features are indicative of two distinct codes: the theory would predict that the feature *prefaced*, which implies a greater sense of individuation, would be an element of the elaborated code; while the feature *assumptive*, which implies a greater sense of reflexivity between speaker and addressee, would be that of the restricted code.

Linguists have recognised the tendency of certain specific words to occur with certain other specific words: in fact, Firth's well-known concept of *collocation* (Firth, 1957) is built on this tendency. I suggest that there is such prehension also between specific features at the semantic level. So the semantic feature *prefaced* tends to co-occur with the features *related* and/or *elaborated*. These features refer to aspects of information management. Specifically, the feature 'related' is realised by the linking of messages, so that details about the sequencing of the states of affairs become available, as in 'you hurt yourself and you cried and that's good to cry' (Extract 1, messages (9)–(11)). The feature *elaborated* is realised by messages that modify and/or develop the information concerning the state of affairs, as in 'when you were a little boy you know what you would have done? you would have run back to mummy, crying really loudly, shouting and you didn't do that, you acted like a big boy' (Extract 1, messages (16)–(23)). This 'clustering' of the semantic features *prefaced*, *related* and *elaborated* makes sense: if the personal distance between the speaker and the addressee has to be bridged discursively, then the terms in that discourse need to be carefully displayed, and information has to be detailed. Now, the semantic features *related* and *elaborated* are realised grammatically as 'modification' and 'subordination', which means these patterns would be expected to occur more often. When in the 1960s Bernstein suggested that these features were relevant to the linguistic differentiation of code varieties, his claim was dismissed (Labov, 1969). With hindsight, it is obvious that Bernstein was right; my research shows that, given their meaning, certain categories of modification and subordination are relevant to code varieties. But there is more to the clusters.

In the environment of questions and answers, two additional semantic features co-occur. The addressee's message following a question is expected to be a *response*, which acknowledges that a question is on the floor; and responses are expected to be *adequate*, so they will address the query point of the question. However, if two persons keep

talking, this does not necessarily entail that questions are being responded to or that, if they are, they address the question’s query point. The significance of these semantic features is obvious from the following examples.

Extract 4

- Mother: (1) oh hurry up ... (2) quick ... (3) sit down ... (4) you’re gonna have your hair washed now ... (5) look—
Karen: (6) what? (7) what mummy? ... (8) what?
Mother: (9) nothing
Karen: (10) why did you say ‘look’?
Mother: (11) alright lay down (12) and I’ll wash your hair.

Here Karen repeats her question three times (messages (6)–(8)) before a response comes in message (9), and that response is not *adequate*: note, the child is not satisfied, as message (10) shows. And although, following upon message (10), the mother does produce a message, it bears no relevance to the question and so it cannot be seen as a *response*. Here is another example:

Extract 5

- Pete: (1) can I play with (?)?
Mother: (2) no
Pete: (3) oh why not?
Mother: (4) no
Pete: (5) oh (PETE CRIES)

Here the mother’s first response is *adequate* although it is *minimal*, without any further elaboration. Contrast this with Julian’s mother (Extract 1, messages (25) and (26)), who immediately elaborates on her minimal response: ‘no because Maree is your cousin’. We have thus identified two clusters of semantic features, as presented in Table I.

Table I. Two significant clusters of semantic features

Cluster 1: centred on <i>prefaced</i>	Cluster 2: centred on <i>assumptive</i>
Questions are more often <i>prefaced</i>	Questions are more often <i>assumptive</i>
More often <i>related</i>	Less often <i>related</i>
More often <i>elaborated</i>	Less often <i>elaborated</i>
Answers are more often <i>responsive</i>	Answers are less often <i>responsive</i>
More often <i>adequate</i>	Less often <i>adequate</i>
More often <i>related</i>	Less often <i>related</i>
More often <i>elaborated</i>	Less often <i>elaborated</i>

The semantic features in each cluster have a ‘natural’ affinity with each other. The nucleus of clusters 1 and 2 in Table I are the features *prefaced* and *assumptive*, respectively: they form the basis for attracting or repelling the habitual occurrence of the other features. These clusters turn out to be statistically highly relevant in accounting for systematic variation in my data. The cluster in the left column is more likely to be found in the discourse of mothers from dominating families, while that in the right column is more likely to occur in the discourse of mothers from dominated families ($p < 0.0003$). Similar results were obtained by Williams (1999) in the context of joint book reading. Remarkably, when in my research young children’s discourse is examined in terms of the same semantic features, an almost identical result is obtained ($p < 0.009$). Cluster 2 typical of the LAP dyads signifies that the mothers view the child as an extension of themselves, similar to them in essential ways, so that there exists an *interpersonal trust*

between them; their children too display reciprocal regard, and a similar orientation toward their mother. Cluster 1, with its emphasis on individuation, on precision, and explicitly conveyed information, occurred more frequently in HAP mothers' discourse as well as in that of HAP children (for details, see Hasan, 1989). The expectations of discursive engagement that the two groups of children entertain, the principles for interactive practices that they internalise, are already being learnt at this early stage, and the learning varies systematically, in keeping with the predictions of Bernstein's code theory (1971, 1973, 1975).

I have gone into some detail about what children learn through the formative mode of the maternal discourse. The point seems worth making that neither group of mothers consciously sets out to teach by the formative mode what the children appear to be learning. It is in this sense that the formative mode is not a variety of pedagogic discourse. Bernstein points out:

... it is necessary to distinguish between pedagogic consequences and a pedagogic relation. All experiencing carries a pedagogic potential but all experiences are not pedagogically generated. (2000, p. 199)

Certainly, in employing the formative mode, the mothers had no pedagogic intention: in fact, even the word 'employ' overstates the case, for the mode is simply an expression of the mothers *being* themselves. What the mothers speak, their selection and organisation of meanings is a realisation of their social positioning, and 'the culturally determined device' for their social positioning is code, as Bernstein has pointed out (1990, p. 13). It is true that experience of the formative mode of discourse carries a pedagogic potential; but every experience does that, and all experience is utilised in the learning accomplished by the children. The relation between learning and teaching is not quite the same as that between buying and selling (Hasan, 1998): unlike buying and selling, learning and teaching are not necessarily the two sides of the same coin. But very often what we think of as learning is precisely that body of knowledge that is actively and consciously taught: the very word *knowledge* conjures up specialist domains where explicit concepts are the basic currency. Given this, one might wonder what, if any, significance can be attached to the learning by formative mode described above. I believe this learning is really the internalisation of the principles of the code that is *the* relevant code for the social subject. In closing the present paper, I want to present my arguments for this view.

First, if we examine a child learning how to mean (Halliday, 1975, 1993), it becomes obvious that the edifice of all learning is founded on interpersonal relations: in fact, during the pre-linguistic and proto-linguistic stage, all functions in the 'child tongue' are relational functions. There is no concept of information and certainly the informative function—that of telling someone something that might be new to them—does not surface until the child has entered the threshold of his/her mother tongue. Learning how to relate to persons is thus an earlier and essential condition for all other kinds of learning. As Vygotsky (1978, p. 57) claimed '... all higher [*mental*] functions [*in the child*] originate as actual relations between human individuals'.

Second, the boundaries between the formative and the informative modes are not impermeable: in fact, the very same string of words carries both implicational meanings and explicitly worded meanings. Clusters of the kind presented in Table I show quite clearly that the informative and formative modes intersperse in discourse: most of the semantic features that are 'logically' entailed by the implicational meanings of *assumptive* and *prefaced* are essentially informative in nature. The information to be given

is, as it were, cut to suit the image of the other: its nature is predicated by the perceived relation.

This has a third consequence. The readiness to receive information, the very perception of what constitutes appropriate information, is fashioned through the specific experience of discourse, and this means through how the formative and the informative modes are interspersed in the discourse that children encounter everyday of their life. The school is where the business of learning is 'institutionalised' but again, as Vygotsky (1978, p. 84) pointed out, '... any learning the child encounters in school has a previous history'. Bernstein's message on this issue was more elaborated: he tried to show us what previous histories of discursive participation different groups of children bring to the school and how this history might impinge on learning in school given the nature of the official pedagogic systems. Part of the function of the child's previous history is precisely to help the child decide what is to be considered relevant by way of information, and how information is to be framed. The semiotic mediation of specialist concepts and knowledge structures calls for a particular kind of discursive experience, a particular form of consciousness, which may or may not have been accessible to all who come to schools to learn. We might claim justifiably that in official pedagogic sites the informative mode, an aspect of Bernstein's elaborated code, is the privileged mode but, in the experience of the growing child, formation and information are integrated: the former gives a specific shape to the latter. It seems appropriate to close the present highly condensed paper on code varieties and their relevance to learning with the words of Basil Bernstein himself:

... the particular form of a social relation regulates the options that speakers take up at both syntactic and lexical [*and semantic*, RH] levels ... different forms of social relations can generate very different speech systems or linguistic codes ... the different speech systems or codes create for their speakers different orders of relevance and relation. The experience of the speaker may then be transformed by what is made significant or relevant by different speech systems ... (1971, p. 144)

Acknowledgements

This research project consisting of several phases was funded by grants from the Australian Research Council and the Macquarie University Research Grants Scheme.

Correspondence: Ruqaiya Hasan, 14/133 Sydney Road, Fairlight NSW 2094, Australia.
E-mail: rhasan@LAUREL.ocs.mq.edu.au

NOTES

[1] Conventions for the transcription of speech are as follows.

- | | |
|----------------|---|
| (4) | The following wording is message number 4 in this extract. |
| (?I wasn't) | segment unintelligible; enclosed is best guess on the basis of context and co-text. |
| **no | |
| **you hurt ... | wording paired by message—initial double star indicates speech overlap. |
| you didn't— | this message was left incomplete and/or interrupted by next speaker. |
| (?) | this segment was unintelligible; no clues to help interpretation. |
| (PETE CRIES) | situational information based on recorded information. |

[2] For discussion on classification and framing see, especially, Bernstein (1990, 1996).

REFERENCES

- BERNSTEIN, B. (1965) A sociolinguistic approach to social learning, in: J. GOLD (Ed.) *Penguin Survey of the Social Sciences* (Harmondsworth, Penguin) (reprinted in Bernstein (1971)).
- BERNSTEIN, B. (1971) *Class, Codes and Control, Volume I: theoretical studies toward a sociology of language* (London, Routledge & Kegan Paul).
- BERNSTEIN, B. (Ed.) (1973) *Class, Codes and Control, Volume II: applied studies towards a sociology of language* (London, Routledge & Kegan Paul).
- BERNSTEIN, B. (1975) *Class, Codes and Control, Volume III: towards a theory of educational transmission* (London, Routledge & Kegan Paul).
- BERNSTEIN, B. (1982) Codes, modalities and the processes of cultural reproduction, in: *Cultural and Economic Reproduction in Education: essays on class, ideology and the state* (London, Routledge & Kegan Paul).
- BERNSTEIN, B. (1987) Social class, codes and communication, in: U. AMMON, K.J. MATTHIER & N. DITTMAR (Eds) *Sociolinguistics: an international handbook of the science of society* (Berlin, Mouton de Gruyter).
- BERNSTEIN, B. (1990) *The Structuring of Pedagogic Discourse, Volume IV: class, codes and control* (London, Routledge).
- BERNSTEIN, B. (1996) *Pedagogy, Symbolic Control and Identity: theory, research, critique* (London, Falmer Press).
- BERNSTEIN, B. (2000) *Pedagogy, Symbolic Control and Identity: theory, research, critique*, revised edn (Lanham, Rowman & Littlefield).
- BERNSTEIN, B. & COOK-GUMPERZ, J. (1973) *The Coding Grid in Socialisation and Social Control: a study of class differences in the language of maternal control* (London, Routledge & Kegan Paul).
- BONCINELLI, E. (2001) Erasmus Lecture: brain and mind, *European Review*, 9, pp. 389–398.
- CLORAN, C. (1999) Contexts for learning, in: F. CHRISTIE (Ed.) *Pedagogy and the Shaping of Consciousness: linguistic and social processes* (London, Cassell).
- DEACON, T. (1997) *The Symbolic Species: the co-evolution of language and the human brain* (London, Penguin Books).
- FIRTH, J.R. (1957) *Papers in General Linguistics 1934–1951* (London, Oxford University Press).
- GREENFIELD, S. (2000) *The Human Brain: a guided tour* (London, Phoenix Paperback).
- HALLIDAY, M.A.K. (1973a) Foreword, in: B. BERNSTEIN (Ed.) *Class, Codes and Control Volume 2: applied studies towards a sociology of language* (London, Routledge & Kegan Paul).
- HALLIDAY, M.A.K. (1973b) Towards a sociological semantics, in: *Explorations in the Functions of Language* (London, Edward Arnold).
- HALLIDAY, M.A.K. (1975) *Learning How to Mean: explorations in the development of language* (London, Edward Arnold).
- HALLIDAY, M.A.K. (1993) Towards a language based theory of learning, *Linguistics and Education*, 5, pp. 93–116.
- HALLIDAY, M.A.K. & MATTHIESSEN, C.M.I.M. (1999) *Construing Experience through Meaning: a language-based approach to experience* (London, Cassell).
- HASAN, R. (1973) Code, register and social dialect, in: B. BERNSTEIN (Ed.) *Class, Codes and Control, Volume II: applied studies towards a sociology of language* (London, Routledge & Kegan Paul).
- HASAN, R. (1989) Semantic variation and sociolinguistics, *Australian Journal of Linguistics*, 9, pp. 221–275.
- HASAN, R. (1992) Rationality in everyday talk: from process to system, in: J. SVARTVIK (Ed.) *Directions in Corpus Linguistics: Proceedings of Nobel Symposium 82* (Berlin, Mouton de Gruyter).
- HASAN, R. (1998) Educating the language teacher: a social semiotic approach, in: B. ASKER (Ed.) *Teaching Language and Culture: building Hong Kong on education* (Hong Kong, Addison Wesley Longman).
- HASAN, R. (1999) Society, language and the mind: the metadialogism of Basil Bernstein's theory, in: F. CHRISTIE (Ed.) *Pedagogy and the Shaping of Consciousness* (London, Cassell).
- HASAN, R. (2000) The uses of talk, in: S. SARANGI & M. COULTHARD (Eds) *Discourse and Social Life* (London, Longman).
- HASAN, R. (2001) The ontogenesis of decontextualised language: some achievements of classification and framing, in: A. MORAIS, I. NEVES, B. DAVIES & H. DANIELS (Eds) *Towards a Sociology of Pedagogy: the contribution of Basil Bernstein to research* (New York, Peter Lang).
- HASAN, R. & CLORAN, C. (1990) A sociolinguistic study of everyday talk between mothers and children, in: M.A.K. HALLIDAY, J. GIBBONS & H. NICHOLAS (Eds) *Learning Keeping and Using Language, Volume 1* (Amsterdam, John Benjamins).
- LABOV, W. (1969) The logic of non-standard English, *Georgetown Monographs on Language and Linguistics*, Vol 22 (Washington, DC, Georgetown University Press).
- TURNER, G.J. (1973) Social class and children's language of control at age five and seven, in: B. BERNSTEIN (Ed.) *Class, Codes and Control, Volume II: applied studies towards a sociology of language* (London, Routledge & Kegan Paul).
- VYGOTSKY, L.S. (1978) *Mind in Society: the development of higher psychological processes* (Cambridge, MA, Harvard University Press).
- WILLIAMS, G. (1999) The pedagogic device and the production of pedagogic discourse: a case example in early literacy education, in: F. CHRISTIE (Ed.) *Pedagogy and the Shaping of Consciousness: linguistic and social processes* (London, Cassell).