SEMIOTIC MEDIATION, LANGUAGE AND SOCIETY: THREE EXOTRIPIC THEORIES - VYGOTSKY, HALLIDAY AND BERNSTEIN

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Introduction

This is not the paper my abstract promised: that paper was going to sit comfortably on the periphery of sociology; this one is without a specific intellectual home; in it, I want to weave together the story of three specialisations, each a discipline in itself: the autonomy of each from all other disciplines has been declared by more than one famous specialist-scholar devoted to the discipline s/he was attempting to defend from the impurities of contact with other existing disciplines. Naturally, being disciplines, each represents a large area of scholarship; so the story, like most stories, will have to be selective. It will weave together not three whole disciplines (whatever that might mean) but simply some fragments from each. The moral at the heart of the story is that disciplines have arisen in the service of maintaining and changing human life, a precondition for which is understanding human life. Because the concerns of human life are interconnected, therefore, in order to appreciate the nature of one concern, you must have some idea of how the others function in relation to it. To be useful, the disciplines must logically be permeable. This in turn says something about the very nature of theory, for in the end it is theory that supplies the foundation for the structure of specialist disciplines: as Bernstein pointed out (2000: 91ff) it is after all theories that explicitly and unambiguously identify the object of study, build the conceptual syntax for revealing its nature, and provide the language of description so that all instances may be described in a way that permits us to understand them adequately. The three human concerns whose interconnectedness forms the focus of my story is are: consciousness, language and society. The fragments that I choose to foreground from these specialist disciplines represent the work of authors who I believe would welcome such an enterprise, namely Vygotsky, Halliday and Bernstein. Let me begin then with consciousness, since, as some might say, this is where all stories regarding human life begin.

The Genesis of Consciousness: A Vygotskian Perspective

In this and the following section, I will present some fragments from a theory of consciousness that has deservedly received much attention during the last two decades. The theory is associated with the name of Vygotsky (1962; 1978), who introduced its crucial features during the early days of Russia's communist revolution. At this point, two comments about this theory appear appropriate: first, in my view, the richness of the theory derives to a large extent from Vygotsky's readiness to make connections with other areas of human concern, such as the biological, the educational, the social and particularly the semiotic, and within the semiotic particularly the linguistic. Secondly, in as much as the theory is open to some serious critiques, this too derives from the fact that other possible and equally important connections are either missed or are not robust enough. In the course of this discussion I hope to elaborate on these points more fully. As I said earlier, what I will be examining from each discipline is simply a fragment — in fact, more accurately, just a fragment of a fragment. In the case of Vygotsky's theory of consciousness, my main interest lies in the concept of semiotic mediation. This is not simply because my work has mostly concerned a sub-field of semiotics, namely, linguistics; it is because the concept of semiotic mediation plays a crucial role in Vygotsky's theory of the development of human consciousness. Vygotsky firmly believed that human behaviour can be understood only as the history of that behaviour, and in his account of the sociogenesis of certain forms of human consciousness, semiotic mediation is a critical factor. The broad sweep of Vygotsky's vision included both phylogenetic and ontogenetic perspectives on mental activity. For my purposes the latter perspective is arguably more relevant. I want to examine the role of semiotic mediation in the ontogenesis of consciousness.

Vygotsky postulated two 'lines' for the genesis of human mental activity: the natural line and the social or cultural line. The natural line enables elementary mental functions, while the social line is active in the genesis of the higher mental functions. Vygotsky was careful to point out that the two lines of mental development do not simply run a parallel course; rather according to him, the specific nature of human consciousness is the product of the 'interweaving of these two lines'. The natural line is where, for all normal humans, mental activity begins: this level of activity Vygotsky referred to as 'elementary mental functions' or sometimes simply as 'natural' mental functions. These represent the initial levels of mental development in human beings, and act as the biogenetic foundation on which more advanced mental activity can be built. Vygotsky argued that in their own make up the natural mental activities do not manifest the qualities which are distinctive of human mental functions. These qualities are introduced into mental functions through the intervention of the social line, which as it were transforms the early natural functions into a higher level of mental activity. An excellent example of the relation of the two lines of mental development is provided by Vygotsky (1978: 51; emphasis added) in the following extract:

> ... when a human being ties a knot in her handkerchief as a reminder, she is in essence, constructing the process of memorizing by forcing an external object to remind her of something: *she transforms remembering into an external activity* ... *In the elementary form* [of mental action *RH*] *something is remembered; in the higher form humans remember something*.

The process of remembering is not unknown to the natural line; it exists in all normal human beings, who are biologically designed to remember. But when the social line enters the scene through the action of tying a knot as a deliberate reminder for recall, the nature of the mental process changes. The remembering subject now gains control on the activity of remembering, which is no longer dependent on environmental triggering. In this sense reminding oneself by tying a knot, a humble enough action, is a socio-genetic mental process: it is socially mediated. Remembering as an elementary mental process is a serendipitous activity triggered by a chance encounter of a stimulus presented by environment. Reminding oneself purposefully and consciously by the mediation of some instrument that is within one's control is a higher and different order of mental function: as Vygotsky put it "to recall [in this sort of context, *RH*] means to think" (1978: 51). I will return to the question of mediation very shortly, but let me here first present in Vygotsky's own words (As translated by Wertsch 1985a: 26) his views on higher mental functions:

> ... [their] basic and distinguishing features are intellectualization and mastery, that is, conscious realization and voluntariness.
>
> At the centre of development during the school age is the transition from the lower functions of attention and memory to higher functions of voluntary attention and logical memory ... the intellectualization of functions and their mastery represent two moments of one and the same process — the transition to higher psychological functions. We master a function to the extent that it is intellectualized. The voluntariness in the activity is always the other side of its conscious realization. To say that memory is intellectualized in school is exactly the same as to say that voluntary recall emerges; to say that attention becomes voluntary in school age is exactly the same as saying ... that it depends more and more on thought, that is, on intellect.

By this brilliant illustration of how human mental development spirals from what is given by nature into something qualitatively different and of a higher order by the intervention of the social, Vygotsky was able to show the continuity between the physical and the social aspects of human life in relation to human consciousness. He thus neatly sidestepped the sterile debate, which is being actively pursued even to this day amongst cognitive scientists about whether human consciousness is given by 'nature' as the Cartesians would have it, or by 'nurture' ie by society as Marx so eloquently argued. Faced with this either/or proposition, Vygotsky overrode the expectations aroused by grammar, and opted for both, thus enriching his field by recognising the complexity of its object of enquiry. This was a remarkable achievement, particularly when we realise that Vygotsky took this stance in the heyday of Piagetian psychology and at a time when the enormous influence of Pavlovian psychology was by no means spent. In the realm of the production of knowledge, we are much given to applauding originality without perhaps fully appreciating its true nature. Let me suggest that, despite what the dictionaries claim, originality does not really refer to absolute novelty, to a freshness uncontaminated by past endeavours by others. In the context we have in mind, it consists in perceiving new connections amongst already existing concepts and structures. Originality is therefore very much like Vygotsky's higher mental functions, a sociogenetic phenomenon.

Semiotic Mediation in the Development of Mental Functions

If the development of a characteristically human mind equals the emergence and growth of higher mental functions, and if higher mental functions are characterised by 'conscious realization' and 'voluntary control', a pertinent question is: where do these two characteristics arise from? Vygotsky's response is brilliant in the acuteness of observation that it reveals. Voluntary regulation and intellectualization call for the 'use of artificial stimuli': it is only such stimuli that are under human control, and this is an essential condition for their manipulation. Ultimately, then, the growth of voluntary control and conscious regulation can be traced to the fact of mediation by artificial stimuli. To quote Vygotsky (1978: 39; emphasis added *RH*):

> ... [human beings] go beyond the limits of the psychological functions given to them by nature and proceed to a *new culturally-elaborated organization* of their behaviour ... The central characteristic of elementary functions is that they are totally and directly determined by stimulation from the environment. For higher functions, the central feature is *self generated stimulation*, that is, *the creation and use of artificial stimuli which become the immediate cause of behaviour*.

For 'use of artificial stimuli' read 'use of tools': the notion of tools is crucial to the process of mediation. Tools are artificial stimuli, not given by nature but created by human beings in the course of their social life, and this has important implications. To clarify the significant contribution of tools to human social existence, Vygotsky used an analysis of physical activities as his point of departure. He pointed out that in performing labour, human beings use *technological* or *concrete tools*, and in the practical sphere, as everyone knows, mediation by tools changes the very nature of human physical performance, making possible achievements that would otherwise have remained out of reach. The structuring of human labour is altered through this mediation and eventually it affects the very nature

of the environment in which we live. Vygotsky argued that, from the point of view of mediation by social stimuli, mental activities are analogous to physical labour: as a form of human labour, they too reach higher levels through mediation by artificial stimuli; their structure too changes and in time they too affect the environment in which we live. The only difference is that in this case, the tools are not concrete, not technological, not material; they are *abstract*, *psychological* and *semiotic*, hence the term *semiotic mediation*. As he put it (Vygotsky 1981: 137), the mediation of mental activities by means of semiotic tools

> ... alters the entire flow and structure of mental functions. It does this by determining the structure of a new instrumental act just as a technical tool alters the process of a natural adaptation by determining the form of labour operation.

We may thus paraphrase the term semiotic mediation as *mediation by means of semiosis*, that is, by the use of sign systems which act as an abstract tool in changing the character of human mental activity. According to Vygotsky (1978: 40):

> The use of signs leads humans to a specific structure of behaviour that breaks away from biological development and creates new forms of culturally based psychological processes .

Now, semiotic acts are acts of meaning, and meaning can be construed by various semiotic modalities, of which language is only one instance. But in his discourse on the concept of semiotic mediation, Vygotsky (1962; 1978; 1981) attached significantly greater importance to language than to other modalities of meaning, so that in the Vygotskian oeuvre, the phrase *semiotic mediation* has come to stand for *mediation by means of the linguistic sign*. In assigning this crucial place to language, Vygotsky was acknowledging his conviction that amongst the various semiotic modalities language alone maximized the qualities that are necessary for something to function as a psychological tool capable of mediating the development of the mind. A Bourdieu (1991) might sneer that this view of language is simply a signifier for linguistic imperialism, but those who have actually worked with language might better understand the point Vygotsky is making (Sapir 1921; Firth 1956; Whorf 1956; Hjelmslev 1961; Saussure 1966; Halliday 1975; Donaldson 1992; Deacon 1997; Hasan 1992a; 1999a): of all the semiotic modalities only language at once defies time, is capable of being reflexive, classifies reality, construes communicable human experience, and articulates the many voices of a culture with equal facility, which is not to say that it ensures their social privilege, or that other modalities make no contribution. These qualities of language are relevant to its capacity for acting as an effective abstract tool, and nowhere is this more evident than in the formation of the growing child's consciousness. It is here that the social nature of the semiotic tool assumes great importance. Here is Vygotsky again (1978: 25):

> Prior to mastering his own behaviour, the child begins to master his surroundings with the help of speech. This produces new relations with the environment in addition to the new organization of behaviour itself. The creation of these uniquely human forms of behaviour later produce the intellect and become the basis of productive work: the specifically human form of the use of tool.

Further, to say that tools are artificial is to say that they are inherently social. If language is an abstract tool for semiotic mediation, it follows that language too is a social phenomenon. This implies that sedimented in language are traces of human social activities and social relations; from which it follows that in using and learning language, children learn their culture (Halliday 1980). The contribution of the social to the child's cognitive growth is central to Vygotsky's discourse of semiotic mediation (Vygotsky 1981: 163) :

> Any function in the child's cultural [ie higher] development appears twice, or on two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an inter-psychological category, and then within the child as an intra-psychological category. This is equally true with regard to voluntary attention , logical memory, the formation of concepts, and the development of volition. ... it goes without saying that internalization transforms the process itself and changes its structure and functions. Social relations or relations among people genetically underlie all higher functions and their relationships.

Semiotic Mediation: an Analysis of the Concept

As the last two sections have indicated, Vygotsky's concept of semiotic mediation has an enormous reach. One might expect a crucial element of a psychological theory to make contributions to the conventionally recognised areas of psychology such as the origins of human behaviour, the nature of learning, the role of intelligence in learning, and the development of consciousness. Vygotsky's concept of semiotic mediation addresses all of these concerns, but it also goes beyond them: it links the development of consciousness to semiosis, and specifically to linguistic semiosis, and it links the specifically human aspects of our practical and mental life to our socio-historical contexts. With the introduction of the concept of semiotic mediation, the canvas of Vygotsky's theory expands; it becomes broad enough to locate the relations of mind, language and society. Vygotsky was, unfortunately, not allowed time to develop the many threads of intellectual enquiry that the concept adumbrated, but even during his brief working life, the concept was used in brilliant researches (see, Vygotsky 1962; 1978; Luria 1976; Wertsch 1985a), and the last three decades have seen a steady growth of scholarship around the concept. Nonetheless, it seems to me that the concept has itself not been fully interpreted, with the result that its impressive reach across the many concerns of human

life has remained invisible. In this section I will attempt to deconstruct the concept by using insights from systemic functional linguistics (henceforth, SFL). I will then go on to briefly indicate which aspects of the concept have been developed in more recent scholarship.

It does not need to be pointed out that the noun *mediation* is derived from the verb *mediate*, which refers to a process with a complex semantic structure involving the following participants and circumstance that are potentially relevant to this process:

[1] someone who mediates, ie a mediator;

[2] something that is mediated; ie a *content/force/energy* released by mediation;

[3] someone/something subjected to mediation; ie the 'mediatee' to whom/which mediation makes some difference;

[4] the circumstances for mediation; viz,.

    (a) the means of mediation ie *modality*;

    (b) the location ie *site* in which mediation might occur.

These complex semantic relations are not evident in every grammatical use of the verb, but submerged below the surface they are still around and can be brought to life through paradigmatic associations ie their systemic relations: we certainly have not understood the process unless we understand how these factors might influence its unfolding in actual time and space. To begin with the first element, when we say *tools mediate*, we are using the verb *mediate* in the same way as the verb *drive* in *this car drives well*. In the world of our experience we know that the initiative and the active agentive power is not with the car or the tool; thus in the case of material mediation, the initiative and the active power lies in the one who is responsible for the *use* of tools to mediate. In other words there must be some conscious *mediator* [1]. To say that a tool mediates is to say that someone uses it to impart some force or energy to the business in hand: this is the *content* of mediation [2]. With technological tools the content is material; what is imparted is material force/energy. With an abstract tool, the energy is semiotic; it imparts some semiotic force. The content/energy to be imparted is directed towards something/someone; it has a destination. The technological tools direct the energy to the process of labour being carried out by the mediator-labourer; the abstract tool is directed toward an other who is addressed by the mediator-speaker, and in this sense semiotic mediation is an inherently interactive process: there must be a conscious *mediatee* [3]. The extracts in the last section show that Vygotsky is keen to draw attention to the interactive nature of semiotic mediation. This is where the concrete and abstract tools differ in a crucial way: the participation of a conscious other, which is a condition of mediation by the abstract tool, alters the nature of the process. We can still maintain that the mediator has the initiative and active power to impart the semiotic/semantic energy, but here the user/mediator has far less control on what happens to this mediated energy: the mediator may impart semiotic energy, but the mediatee may or may not respond to its force, or respond to it in a way not intended by the user. At the heart of semiotic mediation there is this element of uncertainty. Notably, this is not a fact that to my knowledge has ever been brought to attention in the Vygotskian literature: semiotic mediation in the Vygotskian literature appears to always act felicitously. Finally the circumstances of mediation [4] are also important. By referring to the tool as material or semiotic, we have already introduced the different means by which mediation occurs: with the semiotic tools, the *modality* of language is crucial [4a]. Finally there is the question of the spatio-temporal location of mediation: what are the *sites* in which mediation becomes a possibility [4b]. I want to suggest that notwithstanding the role of inner speech in thinking, the necessary environment for semiotic mediation is discursive interaction, which logically brings in train all those social phenomena which impinge on the occurrence of discourse.

This discussion has very likely appeared tedious in its details. But in my view, precisely because these tedious details have not been the object of reflection, the full contribution of semiotic mediation to human life have remained hidden, and at the same time, its problematic nature has failed to be recognised (for some discussion see Hasan 1992a; 1995). In the majority of the scholarship that centres around the concept, the concern has been typically with [2] the content and with [4b] the site of semiotic mediation: what does it mediate, and what is the environment in which it mediates. To be more accurate, [2] ie, the question of content has been treated as non-controversial: the term *semiotic mediation* as used in the literature could be said to be an abbreviation for *semiotic mediation of such higher mental functions as logical reasoning, logical memory, concept formation, and problem solving etc by means of the modality of language*, as if the mediating power of language is restricted only to these phenomena. As I have remarked elsewhere (Hasan 2002) the normal condition of the use of language is for it to mediate something: the question is what are the range of mental structures that are mediated. Certainly, language does play an important role in mediating the genesis of the above mental functions; but this does not exhaust the description of its mediational powers. What we need to recognise is that wherever there is language in use, ie discourse, there is semiotic mediation going on. From this perspective, the overwhelming experience of semiotic mediation that each and every member of a society encounters is that which occurs in local sites ie, in the ordinary, everyday living of life, for to say that the site for semiotic mediation is discourse is to say that the site is social life; and whatever else the experience of social life might or might not have, there must always be for mentally normal human beings, an experience of interaction with others in the daily living of life. To

those of us who know our Bernstein well, it is in this context that language mediates the most fundamental element of our mental life: it produces in us an unfailing sense of what the world is like in which we live. Through semiotic mediation in this discursive environment, we come to recognise the legitimate, acceptable, sensible ways of responding to objective and subjective phenomena in our socially defined universe. It is through this category of semiotic mediation that we internalise our concepts of relevance, and thus of 'rationality', and 'normality': this is where mental habits are created and nurtured. And these dispositions, these habitual ways of engaging mentally — or not, as the case may be — are, as Bernstein has argued since the mid-60s, pertinent to a subject's perception of what is worth attending to, and in what way. Through semiotic mediation we learn ways of being, doing and saying which are intelligible to others in our speech community.

The above comments clearly indicate that the upper limit for the content of semiotic mediation are not determined purely by the inherent characteristics of language: equally, if not more important element is the environment in which mediation is encountered, for access to environment is socially regulated (see discussion below). In recent literature the environment of semiotic mediation [4b] has attracted a good deal of attention and I shall briefly discuss this aspect of the structure of the concept in the concluding paragraphs of the next section. Elements [1] ie mediator and [3] mediatee have received scant attention as social beings (see, however, Axel 1997), though arguably they are crucial to the claim of the sociogenesis of mind (more discussion to follow). When it comes to the circumstance of means [4a], Vygotsky had a good deal to say about the nature of the modality, ie language (more discussion follows). In recent literature, Wertsch (1985b; 1991) has drawn attention to some problems in Vygotsky's conception of language. In the following section, I will look more closely into those fragments of Vygotsky's theory which concern specifically the position of language in relation to mind. Perhaps, the best way to approach this question is through Vygotsky's ideas on the development of thought and language in the growing child, for it is in this context that he presents his views on the social basis of the sign, on the nature of language, and on the role of language in the development of concepts, which as I remarked above, is often foregrounded in the literature as the main achievement of semiotic mediation.

Semiotic Mediation: Language in the Making of Mind

Vygotsky was, of course, very familiar with the work of Stern, Buhler and Piaget, the three major psychologists whose writing in the field of child development had already engaged much contemporary attention. There is, ironically, no indication that he knew about the writings of another contemporary, the anthropologist, Bronislaw Malinowski, whose work on child language development (Malinowski 1923), though slender, resonates, by comparison, quite well with Vygotsky's own socio-genetic approach. What is striking about both is their insistence on the centrality of meaning, and on the crucial role of society in the ontogenesis of meaning making in the infant. Both these issues are foregrounded in Vygotsky's critique of Piaget. Piaget claimed that the early activity of the child "is unquestionably egocentric and egotistic. The social instinct in well-defined form develops late." (Piaget 1924: 276). In support of this claim Piaget cited his observation that the early conversation of children was *egocentric*, not *socialised*. Thus, according to Piaget, the young child at first talks mostly about himself and only to himself, and has no active discursive involvement in the addressee. The intersubjectivity that forms a necessary condition for normal adult discourse is, in Piaget's view, absent from the young child's speech. Vygotsky disagreed; he suggested (1962: 19) instead that:

> The primary function of speech, in both children and adults, is communication, social contact. The earliest speech of the child is therefore essentially social. At a certain stage the social speech of the child is quite sharply divided into egocentric and communicative speech. ... Egocentric speech emerges when the child transfers social collaborative forms of behaviour to the sphere of inner-personal psychic functions. ... When circumstances force him [the child, *RH*] to stop and think, he is likely to think aloud. Egocentric speech, splintered off from general social speech, in time leads to inner speech, which serves both autistic and logical thinking.

Note that Vygotsky uses *communicative* rather than Piaget's term *socialised*, since for Vygotsky all speech is social in any event. Whereas for Piaget the sequence of mental development in the child is first nonverbal autistic thought, then egocentric thought and speech, then finally socialised speech and logical thinking, for Vygotsky with his sociogenetic perspective, the sequence is predictably different: first social communication, then egocentric speech, and then arising from the latter what Vygotsky called inner speech in which the child thinks aloud. This is in keeping with Vygotsky's thesis that the true direction of mental development is not from the individual to the social, but from the social to the individual.

The question naturally arises: what did Vygotsky mean by social *communication* or social *speech*, particularly in infancy, where there is quite obviously no recognizable natural language? It is my understanding that there is no satisfactory answer to this question in Vygotsky's work who simply remarked in passing (1962: 7) that:

> ... understanding between minds is impossible without some mediating expression ... In the absence of a system of signs, linguistic or other, only the most primitive and limited type of communication is possible. Communication by means of expressive movements, observed among animals, is not so much communication as a spread of affect. A frightened goose suddenly aware

of danger and rousing the whole flock with its cries does not tell the others what it has seen but rather contaminates them with its fear.

In fact, the question of social communication in the first weeks of an infant's life was to be answered several decades later by scholars such as Trevarthen (1977), Shotter (1978), Bullowa (1979), and others. Their empirical studies revealed intricate patterns of social communication mediated by gestures between mothers and their weeks old infants, thus vindicating Vygotsky's views on the primacy of social communication. It should be added immediately that the gestures these scholars studied were not simply *expressive movements*, in other words infant communication can not be treated simply as *social contact* or as *a spread of affect*; according to the scholars, some sort of understanding was at issue, and the gestures became systematic remarkably early. Whether one would call them a system of gestural signs or not depends on how one understands the terms *system* and *sign*. I will return to Vygotsky's notion of linguistic sign shortly, but first let me pause a little at the above extract.

I am particularly arrested by the last sentence, an analysis of which would suggest that for Vygotsky communication equals telling someone something that in all likelihood they had not known before. Central to this interpretation of communication is, in terms of Buhler (1990), the concept of *reference* or *representation* — part of what Halliday (1978) was to refer to as the experiential function of language. Halliday's own case study of a child's language development (1973; 1975) showed quite clearly that before the emergence of mother tongue, the child is able to perform a number of communicative functions, using what has become known in linguistics as *proto-language* — child tongue as opposed to mother tongue. However, the majority of these early functions (from nine to about fifteen months of age) were interpersonal such as getting people to do things, greeting them, expressing dis/pleasure, demanding attention or satisfaction of bodily needs, and so on (see Halliday 1975: 148-155). There is also evidence of the ontogenesis of imaginative play in the child; however, even right into the early mother tongue stage, the child was not able to 'talk about' some particular state of affairs to any one who was not already familiar with it. Halliday's findings were replicated by two other case studies (Painter 1984; Torr 1997). The hallmark of proto-language is the absence of grammar; each 'utterance' stands as a whole for one function, and to say that there was no grammar is to say that the utterance was not analysable into constituent units. While there may occur utterances in the later stages of proto-language that seem to sound just like a familiar word from the mother tongue, this is not a word or phrase in the true sense of the word: its function is different from that of the word — perhaps, it is what Vygotsky meant by the primitive function of word as 'signal'. The emergence of grammar and of the informative, i.e. (proto-)experiential function, coincide with entry into the mother tongue, and both require time to establish themselves. But all three children gave unmistakable evidence of what Vygotsky would have called 'intellectual activity'; possibly this is what Vygotsky meant by prelinguistic thought (Vygotsky 1962: 44).

A few things need to be noted at this point: first, studies such as those cited above both in pre-speech and in proto-linguistic communication support Vygotsky's claim that the first communicative acts of the child are social; this favours the view of language as a socially developed system, rather than a mental organ (cf Chomsky's famous position). Secondly, by implication, Piaget's scheme of developmental sequence is brought into doubt: to the extent that thoughts do not think themselves (cf Vygotsky 1962: 8), they must implicate available forms of experience. It is obvious the child, through his acts of communication, already has some experience of the social. So autistic thought could not be the first stage of his mental development. This supports an early start for the sociogenesis of human mind. Third, if we accept that at this early stage the child is communicating, then we have to grant also that the term communication has a wider reference than just telling someone something that they might not have known before: the child's communication could not be dismissed as a genetically programmed 'spread of affect', but at the same time it would be absurd to suggest that the child is 'telling someone something' in the sense of recounting or debating on an experience. Nor could we claim that communication depends on the availability of words, and this is where Vygotsky's own position appears unclear: is the protolinguistic child communicating, or is he not? If he is not, then his early mental activity could be autistic as Piaget claimed; if he is communicating, then clearly communication is possible without words, and we must grant that pre-verbal meanings exist.

An understanding of the nature of language shows that the emphasis on word as the *sine qua non* of language and the function of language to tell someone something stem from the same source: in terms of SFL theory, they are both directly related to the meanings and wordings of the experiential function, respectively. But it is only in adult language use that referring to events and entities, telling someone something in this sense, overshadows the other functions of language, namely, the interpersonal and the textual: so it is in the adult use of language that the experiential function comes into its own. And the reason most scholars have attached greater importance to the referential/experiential function of language is precisely because popular views of language are typically based on the observation of adult language. Vygotsky was not an exception to this rule and like most psychologists, he too attaches greater importance to the experiential and logical functions of language — what in SFL is known as the ideational metafunction. This does not sit well with his

insistence on the primacy of the social. It is this privileging of the ideational metafunction that has given Vygotsky's notion of semiotic mediation its selective reading, whereby it is almost exclusively linked to what Vygotsky called higher mental functions of logical reasoning, concept formation, etc.

Let us turn now to Vygotsky on words and meaning. The unit of linguistic analysis that appears to have had the greatest significance for Vygotsky is word: in fact he seldom if at all mentions any other linguistic units. The importance of the word lies for him in the fact that it refers not to some specific concrete entity but to a generalization, and a generalization is a unit of thought. Thus word meaning represents a union of thought and language, giving us the molecules of verbal thought. The early months of a child's life when he engages in pre-speech or protolinguistic communication are also what Vygotsky describes as the child's pre-intellectual stage. He believed that entry into the mother tongue is possible only when the child's intellect has achieved a certain stage of development. The "two objective unmistakable symptoms" (Vygotsky 1962: 43) of this stage are (1) that the child becomes curious about words, wanting to know the 'name' of everything; and (2) as a result there is a rapid increase in the child's vocabulary. This is when "speech begins to serve the intellect and thoughts begin to be spoken", and "speech which in the earlier stage was affective-conative begins to enter the intellectual phase" (Vygotsky 1962: 43). The case studies by Halliday (1975), Painter (1984) and Torr (1997) agree with Vygotsky's position to the extent that the development of the heuristic function in all three subjects occurred at about fifteen months, and prior to this the child's protolinguistic communication had been largely affective-conative. However, all three linguists also note that entry into the mother tongue is heralded by the emergence of grammar; the child's utterances become analysable, and *this is not simply because the child has now more words*: all three case studies indicated that the combination of one word with different intonation patterns created different message meanings. To understand this phenomenon one must understand the power of grammar in the construal of meaning, but for Vygotsky it would seem word meaning equalled linguistic meaning.

Despite this shortcoming, which was not at all unusual for Vygotsky's *milieu*, his views on the word *per se* were far from naive. He recognised the various states in the process of its mastery, tracing its trajectory in the life of the growing child from its function as just a signal when it stands for an object present to the senses, to the point where it functions as a symbol, a classifier of reality, dealing in generalised classes rather than signalling entities *in praesentia*. It is when the word acts symbolically in this way that it can be used to refer to decontextualised phenomena, and achieves the power to function as an abstract tool in the processes of concept formation. The latter, according to Vygotsky, is a complex and lengthy process requiring the simultaneous development of various mental faculties: Vygotsky maintained that every factor in the process is indispensable, but the ability to use words as symbols to refer to phenomena that are not present in the here and now of communication is crucial (1962: 59; emphasis original):

> ... [we] must ... view concept formation as a function of the adolescent's total social and cultural growth, which affects not only the contents but also the methods of his thinking. The new significative use of the word, its use *as a means of concept formation* is the immediate psychological cause of the radical change in the intellectual process that occurs on the threshold of adolescence.

While recognising the separate lines of the initial development of language and thinking in the child, Vygotsky affirmed repeatedly their interdependence in the higher stages of development. Thus (Vygotsky 1962: 153; emphasis added, *RH*):

> The relation between thought and word is a living process; thought is born through words. A word devoid of thought is a dead thing; and a thought unembodied in words remains a shadow. ... Thought and language, which reflect reality in a way different from perception, are the key to the nature of human consciousness. *Words play a central part not only in the development of thought but also in the historical growth of consciousness as a whole. A word is a microcosm of human consciousness*.

It would be wrong to suggest that Vygotsky was unaware of other aspects of language. On the contrary, his sophistication is quite impressive. But side by side with acute observations, we come across views which are disappointing. The majority of these arise from his elevation of word as the sole meaning maker, which, for example, led him to suggest, at least by implication, that grammar/syntax is antithetical to meaning. Thus discussing inner speech, Vygotsky (1962:145) remarks:

> With syntax and sound reduced to a minimum, meaning is more than ever in the forefront. Inner speech works with semantics, not phonetics.

This simply reveals a confusion on Vygotsky's part: linguistic meaning is not antithetical to grammar and phonology; as SFL literature has argued, it can only take shape, it can only have the status of a semantic unit by virtue of its relation to lexicon and grammar on the one hand and context on the other. Interestingly, elsewhere in the same volume (see pp 143-144) Vygotsky offers an extract from Dostoevsky to illustrate how the meaning of the same word changes with change in the intonation pattern, and intonation pattern is of course very much a unit of description at the level of sound. However, this apparent contradiction should not surprise us, because the change in meaning in this Dostoevsky example is affective rather than significative; in terms of SFL the meaning change is

interpersonal, not experiential, and we have seen that for Vygotsky meaning is overwhelmingly a matter of the signification of words. It is true that Vygotsky is not alone in this predilection: the idea that meaning resides in words and that grammar is simply a matter of form is typical of thinking about language even amongst linguists; the only exception are a handful of anthropologically oriented scholars such as Malinowski (1923), Whorf (1956), Firth (1956), and more recently some functionalist scholars. The importance assigned to referential, representational or experiential meaning — call it what you will — is the inevitable legacy of the belief that linguistic meaning resides solely in words.

Vygotsky (1962: 146) also discusses though briefly the role of context and co-text in meaning construction:

> A word in a context means both more and less than the same word in isolation: more because it acquires new content; less, because its meaning is limited and narrowed by the context. The sense of a word, ... , is a complex, mobile and protean, phenomenon: it changes in different minds and situations and is almost unlimited. A word derives its sense form the sentence, which in turn gets its sense from the paragraph, the paragraph from the book, the book from all the works of the author.

But in the Vygotskian literature on semiotic mediation, there is no engagement with discourse or with context specifically in relation to that concept, though in other contexts Vygotsky did produce excellently insightful discussions of text, especially literary ones (Vygotsky 1971). I will conclude this section by drawing attention to certain major contradictions in the Vygotskian discourse on semiotic mediation. Most of these arise from (1) how language as system is conceptualised and (2) how language is shown, or more accurately *not shown*, to function as a **means** or modality for semiotic mediation. I suggest that any viable account of the nature of language as a means for semiotic mediation must approach it from two inherently interdependent perspectives: that of system and that of process. In the first perspective, the issue is to determine the internal nature of language as a system of signs: what is its semiotic potential, how do we explain the capacity of language for being used to meet so many human needs, and above all what is the relation between the system — the way that language is — and the process of language — the way that it is actually used. In the second perspective, the issue is with the use of the system of signs: what is the actual semiotic behaviour of speaking subjects, who actually says what, where, why, and to whom; how are discourses structured and why. There is a tension between what members of a community **can do** with their language, ie the potential of language as system, and what they **actually do do** with it, ie its situated deployment in a process. We have to recognise that although in material terms it is the speaking subject who as Saussure said is the 'master' in parole, nonetheless the semiotic voice of the master has much in it that has been mastered in social interaction: and this internalisation of the communal comes about because of the ubiquity of semiotic mediation. In understanding semiotic mediation, both perspectives on language are important: the systemic potential spells language's power for sociogenesis; the actual process would indicate the content of semiotic mediation to which a mediatee is exposed.

The above comments on language are presented by way of an introduction to the **first** contradiction in the Vygotskian discourse: *semiotic mediation by means of language entails language use, but the Vygotskian framework has no theory of language use* (Wertsch 1985; 1991; Hasan 1992; 1995). Language in use is text/discourse, call it what you will; in relation to semiotic mediation text/discourse has no place in the Vygotskian writing as has been pointed out by Wertsch (1985b; 1991). Wertsch suggests that this lack could be complemented by Bakhtin's theory of speech genres. However, I have argued in some detail (Hasan 1992a) that though Bakhtin's views concerning speech genres are rhetorically attractive and impressive, the approach lacks, in terms of Bernstein, both a developed conceptual syntax and an adequate language of description. Terms and units at both these levels in Bakhtin's writings require clarification; further, the principles that underlie the calibration of the elements of context with the generic shape of the text are underdeveloped, as is the general schema for the description of contexts for interaction. A second suggestion for complementing the lack in the Vygotskian approach has been to locate semiotic mediation in social cultural activities. The notion of activity had already been introduced by Vygotsky in his late work (Minick 1997). It was developed further by Leontiev, and a good deal of work has been done in this area in recent years (see for detail Leontiev 1978; Wertsch 1981; Cole, Engeström and Vasquez 1997; and Engeström, Miettinen and Punamäki 1999). Space does not permit detailed discussion, but in my reading, activity theory is concerned with specifying the significant attributes of situated social practices. Thus while Wertsch had recommended discourse, activity theory appears to recommend something comparable to context as a site for semiotic mediation. But to the extent that all discursive practices are social practices, the theory of text in context can be taken as a sub-category of activity theory and so logically on the one hand the scope of activity theory should be wider than that of a theory to account for discursive contexts, and on the other hand, the two should be compatible. However, activity theory is heavily biased in favour of the experiential function; it, therefore, chiefly concerns itself with concepts relating specifically to action, such as goal, motivation, purpose, action, outcome etc, what SFL would refer to as the *field of discourse* — a component in the social context for text. However, this bias is unhelpful in describing the social practice of discourse, whose complexity requires a theory that goes beyond action into interaction since the selection, management and outcome of action/field depends so

heavily on what SFL calls *tenor of discourse*, ie the social relations and the positioning of the interactants. Further, the nature of semiotic and material contact between the discursive participants ie their *mode of discourse* is an important consideration in understanding the shaping of discourse. The true nature of the process of semiotic mediation cannot be elaborated if any of these aspects of the use of language is ignored.

The **second** contradiction in Vygotsky arises directly from his views on language as system. For Vygotsky *the history of the development of linguistic meaning is social, but meaning itself is representational/experiential*. He wishes to stress the role of language in the sociogenesis of higher mental functions, but the only meanings he finds of interest are the meanings that do not directly relate to interpersonal relations. Talk of language as a system of symbols capable of decontextualised meaning does in no alleviate the problems inherent in this situation. There can be no quarrel with Vygotsky on the centrality of meaning to the process of semiotic mediation, but as I have shown above, in his work the concept of meaning turns out to be remarkably one-sided. His orientation to experiential meaning goes hand in hand with an absolute preoccupation with word meaning because sense and reference relations are in fact experiential. So convinced is Vygotsky of the contribution of word to the making of human mind that he ignores his wonderful insights into thematic movements in text, and role of context (see Vygotsky 1971) all of which appear as if irrelevant to semiotic mediation. That most of Vygotsky's contemporaries held comparable views on the nature of language is indisputable; but unlike Vygotsky they were not making claims for the sociogenesis of the mind. It is sad that the work of contemporaries such as Mead (1934), Whorf (1956), Malinowski (1923) and Vološinov (1973) seemed never to have come to his notice. Whorf and Malinowski both emphasised the value of grammar in the construal of linguistic meaning; further Whorf's views on the role of language in habitual thinking and in the fashioning of certain aspects of cognition are compatible with Vygotsky's. Mead and Vološinov emphasised the importance of language to human relations. All these emphases are important to understanding semiotic mediation.

The problems with Vygotsky's view of language system go beyond language as the mediating tool to the heart of the content issue — what it is that language mediates. As a system language is exclusively representational/ideational. The social relations and the social situatedness of semiotic mediation cannot be handled by a system of this kind, and so the only achievement of semiotic mediation has to be in line with the concept of the language system. As I have commented above, the elaboration of what Vygotsky meant by higher mental functions, on the one hand gives us a selective reading of the achievements of semiotic mediation by means of language, and on the other hand it presents a view that could be accused of being highly 'elitist'. Higher mental functions, the quintessential artefact of semiotic mediation according to Vygotsky, are characteristically human. So how do we interpret results such as those Luria obtained in his Uzbeki research where adult subjects failed in certain contexts to do successful logical reasoning, inference making and generalization? Surely these subjects used language as *symbol* for this is a condition of adult language use (for discussion, Hasan 1992a). We note that all the mental activities that fall under the rubric of higher mental functions appear to be based in the ideational function of language: it is the ideational function of language to construe technical concepts, logical and inferential relations, entailments of states of affairs, and so on. And the higher mental functions constitute a condition of success in the official pedagogic systems, where their mastery is in the words of Bernstein privileged and privileging. With regard to his Uzbek subjects Luria suggested that the absence of higher mental functions was due to the lack of schooling in his subjects, as if the lack of schooling, ie failure to 'benefit' from official pedagogy, is a simple matter of physical access to official pedagogic discourse, as if education is not an arena where the social class struggle is fought everyday, with the odds heavily stacked against the dominated members of society. If, we accept Bernstein's claim that official pedagogy "articulates the dominant ideology/ies of dominant groups" (1990: 66), then it would appear that higher mental functions are the monopoly of the members of the dominant groups. This is an extraordinary turn for a psychological theory which had aspired to match Marx's Das Kapital!! It comes to pass because the Vygotsky literature entirely ignores what I have called *invisible semiotic mediation* (Hasan 2002): mediation that occurs in discourse embedded in everyday ordinary activities of a social subject's life. In this way, the literature on semiotic mediation ignores the genesis of mental dispositions, the social subjects' culturally learned sense of what matters in life. And yet there is every reason to suppose that these mental attitudes are critical in the success or otherwise of *visible semiotic mediation,* which is active in the genesis of the so called higher mental functions.

These reflections on Vygotsky's views on language have brought the story of the genesis and development of human consciousness face to face with another discipline, that of linguistics. But like other disciplines, linguistics represents diverse approaches and ideologies. The fragment of the discipline of linguistics that I would weave into this story and to which I made reference above is taken from SFL, since on the one hand the roots of this theory are as much in Marxist thinking as those of Vygotsky's psychology , and on the other hand, SFL arguably offers the most developed approach to language which would bring together in a coherent way the system and process of language, and provide insightful descriptions of both. It offers a functional view of language, where language is seen as inherently multi-functional and all functions are equally essential to it as system

and as process; focus on both the ideational and the interpersonal functions of language within the frame of the textual would lend useful insights into the story of the sociogenesis of human consciousness . SFL has a well articulated theory of meaning construal which on the one hand links meaning to social context and on the other to the formal patterns of language, including the systems of grammar and phonology, so it goes beyond word without abandoning attention to it. It is not accidental that the views of Halliday and Vygotsky on child language and thought development are so close: both are in the end looking at the power of language, its role, in fashioning acculturated minds. Unlike the approach of formal linguists, SFL takes the position that language development in the child is essentially learning how to mean (Halliday 1975); and as linguistic meanings are social, child language development consists of learning language, learning through language and learning about language (Halliday 1980). This view is obviously compatible with the Vygotskian approach. Highly relevant is the fact that Halliday and colleagues have demonstrated how the development of the experiential is, as it were, embedded in the interpersonal. The first experiences of a baby are filtered through the social context (Hasan 2001); the child feels the other before s/he is able to address the other. And in addressing the other, relation precedes information: the child-adult communication first positions them *vis a vis* each other as persons with affect, much before there can be any exchange of information. These perspectives from SFL would, I believe, weave a coherent story when combined with Vygotsky's narrative.

Finally, the **third** contradiction I would draw attention to here is closely related to the last one: *speech, Vygotsky maintained, is social; semiotic mediation is social. But when it comes to the process of mediation, it appears to be curiously a-social*. Vygotsky's is a theory that would celebrate the social foundations of mental development, while disregarding almost completely if not entirely the role of language in enacting social relations, as well as the relevance of social relations to mental development. Of the four elements of the semantic structure of the process of mediation (see analysis of the concept in last section above), *it is the mediator and the mediatee [ie 1 and 3] that are crucial to the socially situated quality of semiotic mediation: these are also the ones that are least foregrounded in the Vygotskian literature*. The child after all is not just a repository of mental functions; through the living of life in community, s/he is first and foremost a social person. But in the discourse on semiotic mediation, the mediator and mediatee remain socially innocent; the acculturated adult mentioned some times in connection with semiotic mediation remains in Bernstein's terms, "culturally non-specific" and neither participant seems to be located in the social structure, which in no way appears to impinge on their life. Semiotic mediation can only occur in the course of cultural activities involving speech, and sites for semiotic mediation are not 'free for all'; access to them is specialised by categories of subjects, as Bernstein has argued (see next section for more detail). It is in this respect that in his description of the drama of mental growth Vygotsky's *dramatis personae* remain 'flat characters'. To breathe life into them, to make them three dimensional, we need to weave another discipline into this story and that is the discipline of sociology, specifically the sociology of Basil Bernstein.

Semiotic Mediation and the Sociogenesis of Mind: a Bernsteinian View

In invoking Bernstein's sociology, my aim is not to present or comment on the sociology of Bernstein as such: to do that would be like carrying coals to Newcastle! What I want to do is precisely what I have done for SFL: to weave fragments of a fragment of the discipline of sociology into one story, namely the story of the sociogenesis of human consciousness by means of semiotic mediation. The way I propose to do this is to refer back to my analysis of the concept of semiotic mediation, and ask: does Bernstein's sociology have a significant contribution to make to the various elements of the concept. If so, how? What element of his code theory allows us to better understand this or that aspect of the concept of semiotic mediation?

But I will begin by first establishing the fact that the *idea* of semiotic mediation, though not the *label* itself, has been an important part of Bernstein's theory of the social. As early as 1965 (reprinted 1971: 144; emphases added, *RH*), Bernstein pointed out that:

> ... 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. As the child learns his speech ... he learns the requirements of his social structure. The experience of the child is transformed by the learning generated by his own, apparently, voluntary acts of speech. *The social structure becomes, in this way, the sub-stratum of the child's experience essentially through the manifold consequences of the linguistic process. From this point of view, every time the child speaks or listens, the social structure is reinforced in him and his social identity shaped. The social structure becomes the child's psychological reality through the shaping of his acts of speech*.

This extract bears witness to the fact of mediation through the modality of language. Unlike Vygotsky, Bernstein does not talk of language as one undifferentiated system, but the fact that from the beginning, code varieties are recognised, does not negate the fact that the mediational power of language is critical to code theory. The content of semiotic mediation in the above extract is clearly not the same that attracted Vygotsky: Bernstein is concerned with the internalization of the social structure, rather than with the principles for the production of officially approved orders of knowledge,

but whether it the internalisation of the former or of the latter, the means are the same: in both cases semiotic mediation is the means. The issue of mediation is implicit in the 'general theoretical question of classical sociology' that Bernstein's theory posed itself: "how does the outside become the inside, and how does the inside reveal itself and shape the outside" (Bernstein 1987: 563). Bernstein's theory set itself the task of answering this question over four decades. During this period, understandably, the theory went through developmental cycles, but whatever the language of description the goal remained the same. Bernstein's contribution to the sociology of pedagogy is immense and he is rightly recognised for this, but for me as a linguist, there is no discontinuity between the early Bernstein and the late: Bernstein's œuvre remains steadfast in regard to his commitment to semiotic mediation. Here is one of the most recent Bernstein statement on the concerns of his theory (2000: 91; emphasis added, *RH*):

> The substantive issue of the theory is to explicate the processes whereby a given distribution of power and principles of control are translated into specialised principles of communication differentially, and often unequally, distributed to social groups/classes. And how such and unequal distribution of forms of communication, initially (but not necessarily terminally) shapes the formation of consciousness of members of these groups/classes in such a way as to relay both opposition and change. The critical issue is *the translation of power and control into principles of communication which become (successful or otherwise) their carriers or relays*.

I now want to turn to the semantic structure of the concept of semiotic mediation, to pick up the discussion where we left it last, namely the mediator and the mediatee [1 &3]. The concept in Bernstein's sociology that appears to me most relevant in understanding the social identity of persons is that of social positioning. Bernstein (1990: 13) used this concept to:

> refer to the establishing of a specific relation to other subjects and to the creating of specific relationships within subjects.

What is important about the concept of positioning in Bernstein's writing is its place within the system of his theory. At the risk of repeating what is familiar to you, positioning is ultimately grounded in the most fundamental concepts of any theory of sociology that would attempt to describe a modern society. In the conceptual syntax of Bernstein's theory, positioning is realizationally related to the concept of codes, codes to distribution of power and principles of control, and the latter to the class division of society which realize the basic foundational concepts of division of labour and of capital. This is a firm grounding for the concept of positioning but, it does not yet specify the full architecture of the theoretical frame in which this concept is embedded. Here is Bernstein's elaboration (1990:13-14; original emphasis):

> more specifically, class-regulated codes position subjects with respect to dominant and dominated forms of communication and to the relationships between them. Ideology is constituted through and in such positioning. From this perspective, ideology inheres in and regulates modes of relation. Ideology is not so much a content as *a mode of relation* for the realizing of content.

I read this as a claim that positioning is realizationally related to class-regulated codes, which are themselves realized as dominant and dominated forms of communication, and if a person's ideology is constituted through and in such positioning, then we are claiming that there is a logical relation between a subject's social positioning and the mental dispositions, habits of the mind, the orders of relevance which they bring to bear on whatever they encounter in their social life: there exists an ineluctable relation between one's social positioning, one's mental dispositions and one's relation to the distribution of labour in society. In the universe of Bernstein's sociology there are no socially innocent humans. By these steps it is revealed that semiotic mediation occurs always and only within the frame of the social experiences of the mediator and the mediatee. This fragment of Bernstein's theory not only complements a lack that we noticed in Vygotsky's account, it also allows us to see the greater complexity of the concept.

In arguing above that Bernstein's theory is from its very beginning committed to the notion of semiotic mediation, I have already indicated Bernstein's preoccupation with the content of semiotic mediation: what is it that is produced by the semiotic energy released by such mediation. As a sociologist, the object of study for Bernstein is society: how does society reproduce itself, how does it change, what are the principles of its organisation and how did society come to be organised the way that it is, ie its history. Semiotic mediation in Bernstein's theory plays an important role in answering these questions. Vygotsky paid closest attention to the product of what I have called visible semiotic mediation (Hasan 2002) — the conscious discourse aimed at mediating a specific category of reasoning, a certain range of technical concepts, and a particular relation to the physical phenomena of the world whereby the world is classified and categorised in a certain way. By contrast, Bernstein paid very close attention to invisible semiotic mediation (Hasan 2002) especially in the early stages of his scholarship — how the unself-conscious everyday discourse mediates mental dispositions, tendencies to respond to situations in certain ways and how it puts in place beliefs about the world one lives in, including both about phenomena that are supposedly in nature and those which are said to be in our culture. The early work on code theory at its abstract level indicated very clearly the primacy of invisible semiotic mediation in a person's life: code-regulated discourse is not treated as simply the regulator of cognitive functions; it is also central to the shaping of 'dispositions, identities

and practices' (Bernstein 1990: 3): the results of Luria's research with the Uzbeks would not have caught Bernstein's theory by surprise! However, by the time the theory reached its apex around the late 1980s, Bernstein had already introduced and elaborated certain concepts highly relevant to a detailed study of the properties of language in relation to semiotic mediation, amongst these the chiefly classification and framing, and the nature of pedagogic discourse . By this comment I refer to classification and framing..

We noted earlier the interest in the question of the site of semiotic mediation [element 4b] (see last two sections). Here Bernstein would be in agreement with Wertsch, that the environment for mediation is social practice, which of course includes discourse. However, to affirm simply the significance of social practice or to produce one homogeneous general schema of what is important in the structuring of social practice is not sufficient, because given the 'same' context, different segments of a society do not necessarily engage in the 'same' actual social practices. Bernstein argued that what from some point of view might be thought of as the 'same' context could elicit different practices from persons differently positioned. Bernstein postulates (1990:16 ff) pertinent concepts to show how this comes about. Socially positioned subjects through their experience of and participation in code-regulated dominant and dominated communication develop rules for recognising what social activity a context is the context for, and how the requisite activity should be carried out. Participation in social practices, including participation in discourse, is the biggest boot-strapping enterprise that human beings engage in: speaking is necessary for learning to speak; engaging with contexts is necessary for recognising and dealing with contexts. This means, of course, that the contexts that one learns about are the contexts that one lives, which in turn means that the contexts one lives are those which are specialised to one's social position. Empirical research carried out by Hasan (1989; 1992b) Cloran (1994; 1999) Williams (1995; 1999; 2001) supports these observations: eating a meal with a child may be an occasion for the elaboration of information on life and death, on food chain (Hasan 2002) in one family, but in a differently positioned family eating a meal may be a significantly different kind of activity. What kind of contexts will act as the site for the production of what kind of content by semiotic mediation becomes a question of who the speaker and the addressee are, socially speaking, that is to say, what is their social positioning, and what is the pattern of their participation in the classification and framing of social practices. For some subjects, mundane everyday activities furnish a context for the recontextualisation of official pedagogic discourse; for others the contexts of official pedagogic discourse are simply not relevant. Bernstein certainly does not share Luria's easy faith in the beneficial consequences of semiotic mediation in official pedagogic sites, because between the mediation and the internalisation of mediated concept lies the social history of the receiver. This is not to say that Bernstein counts out the possibility of change, or the role of pedagogy in it. As the conclusion to Bernstein (2000:189; emphasis added, *RH*) points out:

> ... the transmission/acquisition systems the thesis projects do not create copper etchings plates in whose lines we are trapped. Nor are the systems, grids, networks and pathways embedded in either concrete or quicksand. The transmission/acquisition systems reveal and legitimate the enabling and disabling functions of power relations which they [ie the systems *RH*] relay and upon which they rest. Attempts to model the internal principles of such transmission do not make them eternal. *Such analysis may show the poles of choice for any set of principles and the assemblies possible within those poles. It calls attention to the selective effects of transmission, their social costs and the basis for change*.

To reveal the *set of choices, the assemblies of possibilities* is all we can ask of a theory; to understand *the effects of transmission, their social cost and the basis for change* is to understand how to make our actions, perhaps, more effective. The relevance of Bernstein's theory of the structuring of pedagogic discourse to the working of semiotic mediation in the distribution of knowledge cannot be emphasised too much.

On the question of the modality for semiotic mediation, Bernstein's early code theory relied on traditional available descriptions of language. Bernstein himself did not engage, unlike Vygotsky, in any research on the internal structure of language. And although in talking about codes, his emphasis had always been on meaning, it was impossible to find any framework for the semantic analysis of language in use that could be deployed as a heuristic device for the identification of the crucial characteristics of the elaborated and restricted codes. The analysis of data in terms of word classes and grammatical categories such as logical connectives etc was not well-received. With hindsight, it seems that the fault was not so much in the patterns identified; it was largely in the inability of linguists to produce a framework which would relate meaning and wording on a systematic basis. The collaboration of Halliday and Bernstein produced interest in early semantic networks (Halliday 1973; Turner 1973), but this was a completely uncharted territory, and required much spade work before it could become a viable tool for linguistic analysis. Bernstein withdrew from the linguistic analysis of codes, but of course he could not withdraw from semiosis. His codes are described as the regulators of meaning: 'code selects and integrate relevant meanings'; it therefore 'presupposes irrelevant and illegitimate meanings ... The concept of code is inseparable from the concepts of legitimate and illegitimate communication" (Bernstein 1990: 14). To talk of code was to be involved with meaning practices. And Bernstein had an extraordinary sense of the prehension between the social condition

and a specific range of semantic patterns that the social condition would logically select from. Ironically as he withdrew from analysis grounded in linguistic form, his contribution to our understanding of language in use rose to a much higher level. Later Bernstein, in the discussion of the pedagogic device, in the elaboration of rules of recontextualisation, in the development of vertical and horizontal discourse, in the working of the classification and framing in discourse has left a legacy the full scope and value of which we have yet to work out. It is a challenge to semantic analysis to show how these phenomena manifest themselves in the lexicogrammar of a language. What is most relevant at this point is the fact that since these concepts relate to language in use, to discourse as social practice, they are directly relatable to the working of semiotic mediation from the point of view of how the modality performs what it actually does.

Conclusion

To present a reasonably coherent account, the story of the sociogenetic development of human consciousness has required fragments from three different disciplines. In weaving these threads together into the fabric of this paper, my aim was not to criticise this scholar or that for 'inadequate theory'; rather I wished simply to emphasise that essentially human, which is to say social, phenomena are complex, and stories around them are long; this distance cannot be covered by the movement of one discipline. In beginning with Vygotsky, it is his narrative that became the point of departure; its lacks were identified, and other fragments from other disciplines were found that could fill the gap. But one could have started with Halliday, or with Bernstein; and one would have found lacks in both. This is not because Halliday's linguistics is not good enough, or Bernstein's sociology is inadequate, any more than that the lacks mean that Vygotsky's theory is invalid: it is simply that any story which has for its theme the conditions of human existence is bound to remain incomplete within the bounds of one discipline because the concerns of human life are interconnected. Perhaps the best we can hope for in a theory is that it should be exotropic, that is to say, that as a theory it should embed its object of study in a context where the processes of its evolution, stability and change can be seen to originate in the interaction of the object of study with other universes of human experience (Hasan 1999b). In fact all three theories I have examined here are exotropic in this sense. And together their interconnections produce a narrative that is much richer than any single discipline could have provided by itself. Vygotsky contributes to the understanding of our mental life by revealing its deep connection to semiosis; in so doing he anticipates the dialectic of language and mind which is responsible for their co-evolution in the human species. Halliday contributes to the understanding of our semiotic life by revealing its deep connection with society; in so doing, he elaborates on the dialectic of language and society which underlies their co-genesis. Bernstein contributes to the understanding of our social life in modern societies by revealing its inherent connection with consciousness created in semiosis in the contexts of communal living; in so doing, he makes us realize how minds need societies need semiosis to survive, to develop, and to change. In today's political atmosphere, Bernstein, read properly, would reveal the pathology of capitalism whereby our exosomatic evolution, hard won through the working of higher mental functions appears to be leading us towards a large scale extinction of the other in the interest of protecting our boundaries, maintaining our control.

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