Dialogic Inquiry

Towards a Sociocultural Practice and Theory of Education

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1 The Complementary Contributions of Halliday and Vygotsky to a "Language-based Theory of Learning"

> When children learn language, they are not simply engaging in one type of learning among many; rather, they are learning the foundations of learning itself. The distinctive characteristic of human learning is that it is a process of making meaning – a semiotic process; and the prototypical form of human semiotic is language. Hence the ontogenesis of language is at the same time the ontogenesis of learning.
>
> Halliday, 1993a, p. 93

It is with this bold claim that Halliday opens the article, "Towards a language-based theory of learning" (hereafter, LTL), in which he condenses the conclusions of a lifetime's work on language and its development (Halliday, 1993a). In reading it, I was strongly reminded of Vygotsky's similar claims about the role of language and other "psychological tools" in intellectual development. In this chapter, my aim is to demonstrate the compatibility of these two language-based theories of human development as a way of creating a theoretical framework within which to consider the centrality of linguistic discourse in learning and teaching.

Long-Term Goals and the Choice of a Genetic Approach

There can be no doubt that both Vygotsky and Halliday have made major contributions to their chosen disciplines, Vygotsky in psychology and Halliday in linguistics. However, because of the breadth of their conceptions of their subjects, the impact of their work has also been felt far beyond their "home" disciplines, and perhaps nowhere more

The complementary contributions of Halliday and Vygotsky to a "Language-based Theory of Learning." *Linguistics and Education*, 6(1):41–90, 1994. Greenwich, CT: Ablex Publishing Company.

strongly than in the field of education. Indeed, both scholars devoted a considerable amount of energy to putting their theoretical ideas to practical use in attempts to improve the quality of children's educational experience. For much of his professional life, Vygotsky had a substantial involvement in the education of the mentally retarded and some of his most important ideas about the relationship between teaching and learning developed out of his research in the Laboratory of Psychology for Abnormal Childhood, which he founded in Moscow in 1925 (Vygotsky, 1978; Wertsch, 1985).

Halliday has also had an ongoing involvement in education, both in the Nuffield Programme in Linguistics and English Teaching at University College London, from 1964 to 1971, and in his many collaborations with educators in Australia (Hasan and Martin, 1989). However, in both cases, the work that has probably had the greatest long-term educational impact, through its influence on the thinking of teachers and teacher-educators, has been their developmental studies of language and learning. In both cases, too, the undertaking of this research was part of a larger program, in which the choice of a "genetic" approach was seen to be methodologically imperative.

In Vygotsky's case, his work on thinking and speech was part of a comprehensive attempt, in the years following the Russian Revolution of 1917, to establish psychology on a more adequate theoretical foundation, based in part on Marxist principles. An essential prerequisite for this enterprise was the creation of an appropriate methodology for the study of human development and, in particular, of the development of what he called "the higher mental functions." Much of this work was conducted through writings of a theoretical and somewhat polemical nature, as he took issue with what he considered to be the inadequacies of others' research. It was in this context that he formulated what he called the genetic method.

> In associationistic and introspective psychology, analysis is essentially description and not explanation as we understand it. Mere description does not reveal the actual causal-dynamic relations that underlie phenomena.
>
> K. Lewin contrasts phenomenological analysis, which is based on external features (phenotypes), with what he calls genotypic analysis, wherein a phenomenon is explained on the basis of its origin rather than its outer appearance. ... Following Lewin, we can apply this distinction between the phenotypic (descriptive) and genotypic (explanatory) viewpoints to psychology. By a developmental study of a problem, I mean the disclosure of its genesis, its causal dynamic basis. By phenotypic, I mean the analysis that begins directly with an object's current features and manifestations. (1978, p. 62)

Vygotsky's empirical study of concept development, which is reported in Chapter 5 of *Thinking and Speech* (1987), is an example of his application of the genetic method. However, the study of mental functioning over the course of individual development (ontogenesis) is not the only domain in which this approach is to be applied. In fact, Vygotsky specifies four domains in which a genetic approach is required in order to provide an adequate account of human mental processes. These are phylogenesis (development in the evolution of the human species), sociocultural history (development over time in a particular culture), ontogenesis (development over the life of an individual), and microgenesis (development over the course of, and resulting from, particular interactions in specific sociocultural settings). More recent work in the Vygotskian tradition has tackled all these domains, although the greatest emphasis has been on the ontogenetic and microgenetic analysis of development.

However, as Wertsch and Tulviste (1992) emphasize, in their overview of Vygotsky's contribution to developmental psychology, he was not arguing that development in each of these domains is simply a recapitulation of the preceding ones. Each has its own explanatory principles.

> The use and "invention" of tools in humanlike apes crowns the organic devlopment of behavior in evolution and paves the way for the transition of all development to take place along new paths. It creates *the basic psychological prerequisites for the historical development of behavior*. Labor and the associated development of human speech and other psychological signs with which primitives attempt to master their behavior signify the beginning of the genuine cultural or historical development of behavior. Finally, in child development, along with processes of organic growth and maturation, a second line of development is clearly distinguished – the cultural growth of behavior. It is based on the mastery of devices and means of cultural behavior and thinking. (Vygotsky & Luria, 1930, pp. 3–4, quoted in Wertsch & Tulviste, 1992, p. 55. Emphasis in original)

Nevertheless, despite the differences of substance between these domains, the reason for adopting a genetic approach remains constant: In any domain, the present state can be understood only by studying the stages of development that preceded it. To a considerable extent, the same reasons influenced Halliday in his decision to approach his study of language development from an ontogenetic perspective. However, in terms of his overall goals as a linguist, the genetic approach serves a further purpose. One formulation of this is found in a discussion with Herman Parret (Parret, 1974):

> When we investigate the nature of the linguistic system by looking at how [the] choices that the speaker makes are interrelated to each other in the system, we

find that the internal structure is in its turn determined by the functions for which language is used. . . . We then have to take one more step and ask how it is that the linguistic system has evolved in this way since, as we have seen, the abstract functional components are, although related to, yet different from the set of concrete uses of language that we actually find in given situations. This can best be approached through studies of language development, through the study of how it is that the child learns the linguistic system. (Reprinted in Halliday, 1978, pp. 52–3)

Halliday's interest in ontogenesis is thus motivated, in part, by the light that it can throw on the phylogenetic development of human language in general, as exemplified in the particular historical and cultural phenomenon of the English language. In this respect, he is working in the opposite direction from Vygotsky. If Vygotsky's ultimate target is an explanation of individual mental functioning, Halliday's might be said to be the nature and organization of language as a resource for human social living.

And it is this concern with the contribution of language to social living that provides the organizing principle in terms of which Halliday's larger program can best be understood. To a degree, therefore, his genetic stance is also part of his more general attempt to rectify the imbalance he sees in much recent work in linguistics, where the interest in an idealized, ahistorical and acultural "linguistic competence" has led to a disregard of what people actually say and of the uses to which language is put in actual situations. In contrast, the linguistic theory that Halliday and his colleagues have developed is inherently social and functional in orientation. Treating language as simultaneously system and resource, code and behavior, Halliday's goal is to explain, within any particular cultural and linguistic community, what people can mean, and how they use their linguistic resources to do so.

Language and Social Activity

For both Vygotsky and Halliday, then, language is a human "invention" that is used as a means of achieving the goals of social living. And the best way to understand it, they both believe, is by adopting a genetic approach to the study of the ways in which it functions as a tool in the situations in which it is used.

Vygotsky's Conception of Language as Semiotic Tool

Vygotsky develops this insight in terms of semiotic mediation, based on an analogy with the mediating function of material tools in human activity. As Cole (1993) points out, explicating Vygotsky's ideas on this subject, all tools have a dual nature as artifacts: they are simultaneously

both material and ideal, and so require of their users both physical and intellectual activity.

> They are ideal in that they contain in coded form the interactions of which they were previously a part and which they mediate in the present (e.g. the structure of a pencil carries within it the history of certain forms of writing). They are material in that they are embodied in material artifacts. This principle applies with equal force whether one is considering language/speech or the more usually noted forms of artifacts such as tables and knives which constitute material culture. What differentiates a word, such as "language" from, say, a table, is the relative prominence of their material and ideal aspects. No word exists apart from its material instantiation (as a configuration of sound waves, or hand movements, or as writing, or as neuronal activity), whereas every table embodies an order imposed by thinking human beings. (p. 249)

Vygotsky's interest was in the transforming effect of introducing tools into the relationship between humans and their environment and, in particular, in the effect of signs used as psychological tools to mediate mental activity: "By being included in the process of behavior, the psychological tool 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 labor operations" (1981, p. 137). Vygotsky identified a variety of sign-based tools that function in this way – various systems for counting, mnemonic techniques, works of art – but the one that he undoubtedly considered to be of greatest significance – the "tool of tools" – was language. For language not only functions as a mediator of social activity, by enabling participants to plan, coordinate and review their actions through external speech; in addition, as a medium in which those activities are symbolically represented, it also provides the tool that mediates the associated mental activities in the internal discourse of inner speech (Vygotsky, 1987).

In fact, it was inner speech that most interested Vygotsky (as we shall see below) and its origins in the social speech that accompanied problem-solving activities of various kinds in situations of face-to-face interaction. For this reason, apart from his general statements on the relation between language and culture, Vygotsky has rather little to say about the role that semiotic mediation plays, in every social encounter, in both instantiating the culture and in recreating and modifying it.

Halliday's Conception of Language as Social Semiotic

This lacuna has been amply compensated for by Halliday, who has devoted much of his career to exploring this reciprocal relationship between language and culture, although this is only hinted at in LTL. To gain a better appreciation of the scope of his work from this perspective,

one needs to read some of the other articles referenced in that paper. A particularly helpful source is the collection published as *Language as Social Semiotic* (1978). The following passage, taken from his introduction to that collection will serve to give an idea of his overall conception of the field:

> A social reality (or a 'culture') is itself an edifice of meanings – a semiotic construct. In this perspective, language is one of the semiotic systems that constitute a culture; one that is distinctive in that it also serves as an encoding system for many (though not all) of the others.
>
> This in summary terms is what is intended by the formulation "language as social semiotic." It means interpreting language within a sociocultural context, in which the culture itself is interpreted in semiotic terms – as an information system, if that terminology is preferred.
>
> At the most concrete level, this means that we take account of the elementary fact that people talk to each other. Language does not consist of sentences; it consists of text, or discourse – the exchange of meanings in interpersonal contexts of one kind or another. The contexts in which meanings are exchanged are not devoid of social value; a context of speech is itself a semiotic construct, having a form (deriving from the culture) that enables the participants to predict features of the prevailing register, and hence to understand one another as they go along.
>
> But they do more than understand each other, in the sense of exchanging information and goods-and-services through the dynamic interplay of speech roles. By their everyday acts of meaning, people act out the social structure, affirming their own statuses and roles, and establishing and transmitting the shared systems of value and of knowledge. (p. 2)

One particularly powerful way of approaching this two-way relationship between language and social structure is through the study of variation, both the dialectal variation that expresses the diversity of social structures of a hierarchical kind and the register variation that expresses the diversity of social processes – what is being done, who is involved in doing it, and the semiotic means that they are using.

But these variations in language behavior do not simply express the social structure.

> It would be nearer the point to say that language *actively symbolizes* the social system, representing metaphorically in its patterns of variation the variation that characterizes human cultures. . . . It is this same twofold function of the linguistic system, its function both as expression of and as metaphor for social processes, that lies behind the dynamics of the interrelation of language and social context; which ensures that, in the micro-encounters of everyday life where meanings are exchanged, language not only serves to facilitate and support other modes of social action that constitute its environment, but also actively creates an environment of its own, so making possible all the imaginative modes of meaning, from backyard gossip to narrative fiction and epic poetry. The context plays a part in determining what we say; and what we say plays a part in determining the context. (1978, p. 3)

This concept of the mutually constituting role of language and social context is most fully developed in Halliday's work on register and in his own and his colleagues' work on genre (see, for example, Halliday, 1978; Halliday and Hasan, 1985; Martin, 1992). All instances of language use occur – or, putting it more dynamically, all texts are created – in particular social contexts. Of course, each event is unique in its details but, for the participants to be able to co-construct the text, they have to interpret the context as an instance of a recognizable "situation-type" and to make their interpretation recognizable to their coparticipants. This they do, Halliday proposes, in terms of their knowledge of the regular patterns of co-occurrence that exist between particular semiotic properties of the situation and particular choices from the semantic resources that make up the culture's linguistic meaning potential (register) and of the way in which these choices are sequentially deployed in the staged organization of the event (genre).

Thus, one way of thinking about register is as prediction: Given a particular context of situation – a "situation-type" – certain semantic features have a much higher probability of being selected than others in the construction of the associated texts. However, only some of the features of the situation are relevant in categorizing situation-types, Halliday suggests, and these can be captured under three headings, or dimensions: "field," "tenor" and "mode." Field concerns the social action that is involved – what is going on; in the case of certain types of event, this semiotic content may be referred to as the "subject matter." Tenor is concerned with the "who" of the event – the participants and their relationship to each other, considered from the point of view of status and their roles in the event. Mode refers to the choice of channel on the spoken–written continuum and to the role assigned to language in the event. Together, these features of the situation predict the semantic configurations that are likely to occur in the text that is constructed; or, to put it differently, the participants' interpretation of the situation in terms of these dimensions predisposes them to make certain types of choices from their meaning potential in co-constructing their text.

Register thus accounts for the probabilistic relationship between particular situation-types and the meaning choices most likely to be realized in the texts that are constructed in relation to them. However, it does not account for the sequential organization of those meanings as a text that enacts a particular, culturally recognizable type of activity in that situation. For this, the concept of genre is more appropriate. Described by Martin et al. (1987) as "a staged, goal-oriented social process," a genre specifies

the elements (or "significant attributes"), both obligatory and optional, that constitute the process and the sequence in which they occur. In her exposition of the concept of genre, Hasan (1985) glosses "element" as "a stage with some consequence in the progression of the text" (p. 56) and uses the text of a service encounter in a fruit and vegetable store as an illustration. Any such text, she argues, must contain the elements of "sale request," "sale compliance," "sale," "purchase," and "purchase closure," in that order. Other elements, such as "greeting," "sale initiation" or "finis" (leave-taking), are optional. However, if they do occur, their sequential position is also fairly tightly constrained.

Exactly how the relationship between register and genre should be conceptualized is still a matter of considerable debate (Hasan, 1992; Martin, 1992), but it is clear that, between them, these two concepts provide a powerful means of explaining the predictability of the texts that are produced in particular situational contexts. Conversely, they also explain how, from the text so far produced, the participants are able both to coordinate their interpretation of the situation and to determine how to proceed with the activity/text construction (Halliday, 1984).[1]

Before leaving the topic of the relationship between language and social context, it is important to emphasize that Halliday conceives the relationship as a reciprocal one: Although the way in which we interpret the context of situation largely determines what we say, it is also true that what we say plays a part in determining the situation. This is particularly significant, from an educational point of view, when we consider attempts to bring about educational change. As I point out in Chapter 5, teachers are not entirely constrained by traditional definitions of the situation-types that constitute a typical "lesson." By making different choices from their meaning potential, particularly with respect to tenor and mode, they can significantly change the register and genre that prevail and thereby create different learning opportunities for their students.

From what has been said in the preceding paragraphs, it can be seen that, although Halliday and Vygotsky are in agreement in seeing language as a cultural tool that has been developed and refined in the service of social action and interaction, the ways in which they have explored this insight have led them in different directions. While not denying the importance of an "intra-organismic" orientation, Halliday has chosen to adopt the complementary "inter-organismic" alternative, focusing on language as social behavior (1978, pp. 12–3). Vygotsky, on the other hand, as it were taking for granted the results of Halliday's research, has been concerned with the implications for individual mental development of participation

in linguistically mediated social interaction. Both are united, however, in their interest in the part that language plays in the development of the individual as a member of a particular culture. And it is to this that we shall turn in the following section.

Learning Language: Appropriating Culture

With respect to their general conceptions of what is involved in learning a first language, there can be little doubt that Vygotsky and Halliday are in accord. Halliday's account of the beginning stages will serve to set the stage.

> Children are predisposed, from birth, (a) to address others, and be addressed by them (that is, to interact communicatively); and (b) to construe their experiences (that is, to interpret experience by organizing it into meanings). Signs are created at the intersection of these two modes of activity. Signs evolve (a) in mediating – or, better, in enacting – interaction with others, and (b) in construing experience into meaning. (LTL, pp. 94–5)

The example that follows the above quotation also makes it clear that he considers the creation of signs to be a joint construction by infant and adult in the course of specific social interactive events:

> Thus typically at 0;3—0;5 babies are "reaching and grasping," trying to get hold of objects in the exterior domain and to reconcile this with their awareness of the interior domain (they can see the objects). Such an effort provokes the use of a sign, which is then interpreted by the adult caregiver, or an older child, as a demand for explanation; the other responds in turn with an act of meaning. There has been 'conversation' before; but this is a different kind of conversation, in which both parties are acting symbolically. A typical example from my own data would be the following, with the child at just under 0;6:
>
> There is a sudden loud noise from pigeons scattering.
> Child [lifts head, looks around, gives high-pitched squeak]
> Mother: Yes, those are birds. Pigeons. Aren't they noisy!
>
> (LTL, p. 95)

Vygotsky makes essentially the same point about the co-construction of meaningful signs in describing the emergence of what he calls the "indicatory gesture." In the first stage, when failing to reach an object beyond arm's length, the child's hands "stop and hover in midair. . . . Here we have a child's movements that do nothing more than objectively indicate an object." However, when the mother comprehends the significance of the movement as an indicatory gesture, there is an essential change in the situation.

> The indicatory gesture becomes a gesture for others. In response to the child's unsuccessful grasping movement, a response emerges not on the part of the object but on the part of another human. Thus other people introduce the primary sense into this unsuccessful grasping movement. And only afterward, owing to the fact they have already connected the unsuccessful grasping movement with the whole objective situation, do children themselves begin to use the movement as an indication. (1981, pp. 160–1)

Despite differences between the two accounts in the extent to which the child's initial behavior is seen as symbolic, the features they have in common are very striking: The child is the initiator of the event; he or she draws on his or her existing resources to make an adaptive response (vocal or gestural) to some aspect of the environment; the adult interprets this response as intended communicatively and responds accordingly; in so doing, the adult constitutes the child's action as a sign – a symbolic action with communicative value.

A further feature that is brought out explicitly by Halliday's example is that, in responding, the mother both validates the communicative significance of the child's behavior as a sign, and also makes a further contribution to the meaning that is being co-constructed in the conversational sequence that the child's behavior has initiated. She thus not only models the dialogic nature of conversation as "exchange," but also provides evidence of how other relevant features of the situation – to which she judges the child is already attending – are encoded in the adult language.

The microgenetic significance of this "contingently responsive" behavior on the part of the adult participant can be seen very clearly in an example, involving a somewhat older child, taken from my own data (Wells, 1986, pp. 46–7).

Mark (2;3) is standing by a central heating radiator and can feel the heat coming from it. He initiates the conversation by sharing this interesting information with his mother.

> *Mark:* 'Ot, Mummy?
>
> *Mother:* Hot? (ckecking) Yes, that's the radiator
>
> *Mark:* Been- burn?
>
> *Mother:* Burn? (checking)
>
> *Mark:* Yeh
>
> *Mother:* Yes, you know it'll burn don't you?

A few minutes later Mark is looking out of the window, where he can see a man who is burning garden waste. Mother is now busy about housework.

Mark: A man's fire, Mummy
Mother: Mm? (requesting a repetition)
Mark: A man's fire
Mother: Mummy's flower? (checking)
Mark: No. . . the man . fire
Mother: Man's fire? (checking)
Mark: Yeh
Mother: (coming to look) Oh, yes, the bonfire
Mark: (imitating) Bonfire
Mother: Mm
Mark: Bonfire . . .
Oh, hot, Mummy. Oh hot . it hot . it hot
Mother: Mm. It will burn, won't it?
Mark: Yeh . burn . it burn.

Several points can be made about this extract as an illustration of the way in which the co-construction of meaning in particular conversations provides the basis for the child's taking over of the adult language. First, it illustrates the way in which the conversations in which the young child participates are "functionally related to observable features of the situation around him" (Halliday, 1978, p. 18). This is for both Halliday and Vygotsky a necessary precondition for communication at this stage, when the gap between the participants is so great. It is also a necessary basis for the child to be able to "break into" the adult language. Second, as I have argued elsewhere (Wells, 1985, 1986), it is for this reason that it is important for the adult to ascertain the child's meaning intention, as Mark's mother does here, before extending the conversational exchange. When the child's interlocutor makes an incorrect interpretation, his or her extension of the assumed topic risks seriously confusing the child or, at best, bringing the conversation to a halt. However, when – as here – the adult is able to follow the child's lead and make contributions that are relevant to the child's focus of interest and attention, meanings that are initially co-constructed can be taken over by the child and brought to bear in new situations in which they apply. This can clearly be seen happening in Mark's observation that, like the radiator, the bonfire is "hot" and may "burn."

On this general issue of the interactional basis of language learning, Halliday and Vygotsky are, I believe, in close agreement. However, there are points on which they apparently differ. One of these concerns the origins of the child's language.

"Talking One's Way In"

Vygotsky argues that there are two separate "roots" to what he calls "intellectual speech" (by which he may be taken to mean speech which is recognizably based on the adult language). Both a phylogenetic analysis of the behavior of anthropoids and an ontogenetic analysis of the behavior of human infants led Vygotsky to draw the following conclusions:

> 1. As we found in our analysis of the phylogenetic development of thinking and speech, we find that these two processes have different roots in ontogenesis.
> 2. Just as we can identify a "pre-speech" stage in the development of the child's thinking, we can identify a "pre-intellectual stage" in the development of his speech.
> 3. Up to a certain point, speech and thinking develop along different lines and independently of one another.
> 4. At a certain point, the two lines cross: thinking becomes verbal and speech intellectual.
>
> (1987, p. 112)

Vygotsky fixes this point at about the age of two, following Stern, who describes it as the moment "when the child makes the greatest discovery of his life, that each thing has its name." The reaching of this milestone is manifest in "the child's sudden, active curiosity about words . . . and the resulting rapid, saccadic increases in his vocabulary" (1987, p. 82). Prior to this point, Vygotsky notes, the child does recognize a small number of words for objects, persons, actions, states, or desires, but these are words that have been supplied by other people. However, when he reaches this milestone, "The situation changes; the child feels the need for words and, through his questions, actively tries to learn the signs attached to objects. He seems to have discovered the symbolic function of language. Speech, which in the earlier stage was affective-conative, now . . . enters the intellectual phase" (1987, p. 82).

On the surface, this account seems to be very different from the one proposed by Halliday, based on his very detailed study of Nigel (1975, LTL). Before considering the disparities, though, two points should be made about the account that Vygotsky offers. First, not having access to data that he had collected himself, Vygotsky was dependent on the published work of other scholars, such as Stern and Buhler. Second, his somewhat sketchy account of language development was written in the context of his study of the relationship between thinking and speech, including the development of inner speech, and so, to a degree, was influenced

by his attempt to establish his position on this subject vis-à-vis those of Piaget and other scholars with whom he disagreed. For both these reasons, Vygotsky's account should not be taken as a comprehensive theory of language development of the kind that Halliday provides.

This being said, there are still some major discrepancies that need to be considered. On closer inspection, though, it is not so much the "facts" that are in dispute as the interpretation that is put upon them. As numerous studies have now shown, it *is* the case that a recognizable milestone occurs at about the age of two and that, thereafter, the child's speech becomes intelligible to people outside the immediate family. It is also the case that, at about this age, many children engage in the naming game concurrently with a rapid increase in vocabulary (Bruner, 1983). It is also true that, prior to this point (whether it occurs at two, or somewhat earlier – or later), the child can successfully communicate with his or her immediate family using stable forms, that may be based on relevant adult words. What is more controversial, though, is Vygotsky's interpretation of these facts.

First, the separate roots of thought and speech. In the form in which Vygotsky makes this claim, many may find the distinction too schematic and symmetrical (Bates, 1976). However, it is interesting to see that, in the two predispositions that Halliday sees as setting the stage for language development – interacting communicatively and interpreting experience – there is at least a suggestion of a distinction of the kind that Vygotsky proposes. In Vygotsky's scheme, however, the predisposition to interpret experience does not initially involve speech, but is more akin to the chimpanzee's toollike manipulation of objects. Only when both preintellectual speech and prespeech thought have reached a relatively high level does language proper begin: "To 'discover' speech, the child must think" (1987, p. 112). Halliday, on the other hand, has very little to say about the intellectual development of the child prior to the emergence of language, although he does state that "the child has the ability to process certain highly abstract types of cognitive relation which underlie (among other things) the linguistic system" (1978, p. 17). However, my interpretation of his few comments on this very early stage is that he considers both language and thinking to emerge out of what might be called "protosemiotic" systems of action and gesture. On this score, then, their views are certainly not identical, but neither are they categorically opposed.

The second, and in my view more important, difference is in their characterization of the major milestone that occurs at around the age of

two. Vygotsky's identification of the discovery that things have names as the chief characteristic of the breakthrough that occurs at this age is probably partly accounted for by the salience of this aspect of the child's concurrent speech behavior and by his relative ignorance of the earlier phases of language development, which have only become known since his time (Wertsch, 1985). But just as significant, I believe, is the fact that, both in his analysis of inner speech and in his study of concept formation, it was word meaning that he selected as the critical unit for making the bridge between thinking and speech.

For Halliday, on the other hand, it is the transformation of the child's protolanguage into the adult language that is the significant milestone and, as he explains in considerable detail (1975, LTL), this is dependent on the adoption of a tristratal system.

> The [protolinguistic] system as a whole is now deconstructed, and reconstructed as a stratified semiotic: that is, with a *grammar* (or, better, since this concept includes vocabulary, a *lexicogrammar*) as intermediary between meaning and expression. The grammar interfaces with a semantics at one edge and with a phonetics, or phonology at the other. In other words, the protolanguage becomes a language, in the prototypical, adult sense. (LTL, p. 96)

These are certainly very different accounts, with Halliday's being both more detailed and more centrally concerned with explaining how the child constructs an "adult" language on the basis of the resources that had been developed in the preceding phases. And it is their views of the nature of these resources that constitute the third area of disagreement.

Halliday describes the construction of what he calls the protolanguage as very much the child's own invention. About the earliest phase, he observes that "there is no obvious source for the great majority of the child's [vocal] expressions, which appear simply as spontaneous creations of the glossogenic process" (1975, p. 24). Similarly, the meanings that these expressions encode are not derived from adult meanings. By contrast, Vygotsky, in the extract quoted above, seems to suggest that, prior to the two-year milestone, the child has not been actively involved in constructing a linguistic means of communicating, but is operating with "words that have been supplied by other people" (1987, p. 82).

Paradoxically, however, this marked disagreement stems from their different ways of developing what I believe to be very similar overall perspectives, which are related to their choice of a genetic explanation. In the discussion with Halliday referred to earlier, Parret asks what the study of one child's development has to offer to general linguistics. Halliday's answer is worth quoting at length.

To me there seem to be two aspects to be stressed here. One is: what is the *ontogenesis* of the system, in the initial stage before the child takes over the mother tongue? The other is: what are the strategies through which the child takes over the mother tongue and becomes linguistically adult? . . . We can postulate a very small set of uses, or functions, for which the child first creates a semiotic system. I have tried this out in relation to one subject, and you can see the child creating a meaning potential from his own vocal resources in which the meanings relate quite specifically to a certain set of functions which we presume to be general to all cultures. He learns for instance that language can be used in a regulatory function, to get people to do what he wants; and within that function he learns to express a a small number of meanings, building up a system of content/expression pairs where the expression is derived entirely from his own resources. He creates a language, in functional terms. Then at a certain point he gives up this trail. . . [and] he switches and starts taking over the adult system. (1978, p. 53)

The critical phrase here is "functions which we presume to be general to all cultures" or, as he put it a little earlier, "creating his own language on what is presumably a phylogenetic model." What Halliday seems to be suggesting is that the protolanguage emerges from the child's "natural" adaptation to, and interaction with, a social environment. With the child's switch to the adult language, on the other hand, we see both the influence of an already existing cultural tool on the phylogenetically "natural" protolanguage, and the consequences for the child's ability to participate in social activity which result from the dramatic expansion of his meaning potential.

However, the transition is not made entirely on the child's initiative. For, as Halliday acknowledges:

the adult language does exert an influence on the child's semantic system from a very early stage, since the child's utterances are interpreted by those around him in terms of their own semantic systems. In other words, whatever the child means, the message that gets across is one which makes sense and is translatable into the terms of the adult language. It is in this interpretation that the child's linguistic efforts are reinforced, and in this way the meanings that the child starts out with gradually come to be adapted to the meanings of the adult language. (1975, p. 24)

This, I would argue, is not very different from Vygotsky's more general account of the way in which participation in cultural practices leads to modification and transformation of the individual human's "natural" functions. In the earliest stage of interaction with others, Vygotsky states, contact is established through touching, cries or gazes – forms of direct relation that are also found among anthropoids.

At a higher level of development, however, mediated relations among people emerge. The essential feature of these relations is the sign, which aids in establishing this

social interaction. It goes without saying that the higher form of social interaction, mediated by the sign, grows from the natural forms of direct social interaction, yet is distinguished from it in an essential way. (1981, p. 160)

In the chapter from which it is taken, this passage is immediately followed by the account of the development of pointing as a sign, which was quoted at the beginning of this section. And, on that basis, Vygotsky goes on to draw the following conclusion: "We could therefore say that it is through others that we develop into ourselves. . . The individual develops into what he/she is through what he/she produces for others. This is the process of the formation of the individual" (1981, pp. 161–2). This is strikingly similar to Halliday's more specifically linguistic account of the development of "persons," which he represents in the diagram which is reproduced as Figure 1.1.

Thus, as I intimated earlier, the differences between Vygotsky and Halliday with respect to their views on language development turn out to be relatively insignificant when compared to the areas in which they are in very general agreement. Where they differ is in the rather general and schematic framework that Vygotsky sketches compared with the much more detailed account that Halliday provides of the specifically linguistic ontogenetic process.

This way of characterizing their respective contributions to a language-based theory of learning is even more true when we come to consider their accounts of how participation in conversation provides the means for taking over the more general semiotic resources of the culture, a process referred to interchangeably as "socialization" or "enculturation."

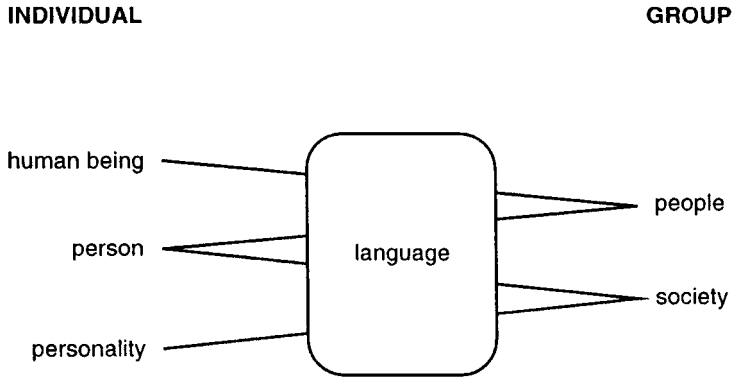

Figure 1.1 Learning Language: Becoming a Person. From Halliday, 1978, p. 15.