Gordon's introduction to discussing the Halliday-Vygotsky discussion XMCA "Language, Culture and Activity" Mini Course, June, 2005

Phil's choice of 'tool and sign' as the point of departure for this series of linked topics for discussion was an inspired one because it invites us to consider the similar, but also different, ways in which (almost?) all human behavior is mediated by resources over and above the attributes of the 'bare forked animal' that are biologically given. Both tools and signs are means for getting things done and, although they differ in the manner in which they mediate the achievement of the goals of intended actions, they in their different ways amplify what we can do 'unaided'. Furthermore, most instances of joint activity involve both modes of mediation in complex patterns of interaction.

Halliday's LTL article focuses on semiotic mediation and, more specifically, mediation by language when, as Vygotsky more explicitly recognizes, there are other modes of semiotic mediation, such as mathematics, visual representations and so on. Nevertheless, both Vygotsky and Halliday give preeminence to language and it was on that basis that I explored the similarities and differences with respect to their contributions to a 'language-based theory of learning'. As will be clear, I consider them to be very similar in their 'genetic' methodologies, in their accounts of the ontogenetic learning of the 'mother tongue', and in the roles that they ascribe to language and linguistic interaction in the development of what Vygotsky calls the 'higher mental functions'. Where they offer differing accounts, this is generally because of their different programmatic orientations: Vygotsky, the psychologist, to the explanation of individual mental functioning and Halliday, the social semiotician, to the ways in which, through (linguistic) acts of meaning, members of a sociocultural community "act out the social structure .. establishing and transmitting the shared system of values and knowledge." But, I argue, in large part because of their different orientations, their differing insights are complementary rather than in conflict.

It would be superfluous, in this introduction, to reiterate the details of my argument – which is, of course, open to challenge and/or development. However, I will take this opportunity to draw attention to two areas in which I believe the differences between them repay further exploration. The first concerns the very early stages of language development, from protolanguage to adult language (Halliday), or what leads up to the stage when thinking becomes verbal and speech intellectual (Vygotsky). The second concerns the different accounts they give of: the development of the higher mental functions made possible by the school-based introduction of systemically organized 'scientific concepts' (Vygotsky) as opposed to the reconstrual of experience in terms of the synoptic perspective foregrounded by the use of grammatical metaphor in technical, discipline-based written texts (Halliday). To some extent, these differences arise from their disciplinal affiliations and, to some extent, from the greater understanding that has accrued about the ontogenesis of linguistic communication and language learning as a result of the research that has taken place between the 1930s, when Vygotsky was writing Thinking and Speech, and the 1990s, when Halliday wrote Towards a language-based theory of learning. To which it should be added that this greater understanding is in no

small part due to the work of Halliday and his associates (which is still largely unknown in North America).

However, I think there is another difference which is perhaps more important as we try to formulate our individual and collective understandings of the role of language in learning and development. For Halliday, "the ontogenesis of language is at the same time the ontogenesis of learning" (LTL, p.93; my emphasis). This is a very strong claim and one which, in my view, largely ignores the phylogenetic development of the species which made possible the emergence of learning through language. On p. 95, Halliday gives brief recognition to the very early (pre-sign) stage when reaching and grasping provides a mode of coming to know through action (cf Piaget) and of (pre-intentional) communication to others. On the same page, there is also a brief reference to early signs being "characteristically **iconic**" – embodying "a natural relationship between expression and meaning." But, phylogenetically speaking, the development of these actional and iconic modes of communicating and knowing – of meaning-making in the context of participation in joint activity - extended over many millennia before the advent/invention of speech, and it was these forms of semiotic behavior that formed the essential substantive basis of shared meaning for which speech provided a much more powerful mediational means

Although Vygotsky does not explicate this sequence of phylogenetic development in detail, it is clearly an integral part of his overall theory of the way in which the lower mental functions are transformed into higher mental functions through the incorporation of different categories of mediational means. The same could be said of his account of ontogenetic development, in which a "pre-speech" stage in the development of the child's thinking can be identified, as can a "pre-intellectual" stage in the development of his/her speech.

Since I wrote the article comparing Vygotsky's and Halliday's ideas concerning a language-based theory of learning. I have read a number of works that have led me to expand my understanding of the importance of the "tools" that have become available to mediate knowing and communicating at different points in the phylogenetic development of contemporary humans. Although the most recent, I have found Tomasello's (1999) The cultural origins of human cognition to be particularly foundational in his emphasis on what distinguishes humans from other higher primates: the biologically based human social-cognitive predisposition to see other humans as like themselves. Equally important for me was Wartofsky's (1979) distinction between primary, secondary and tertiary artifacts and their roles in both mediating knowing and in representing "what is known." But what first started me on this line of exploration was Donald's (1991) Origins of the modern mind: Three stages in the evolution of culture and cognition. All three works are profoundly Vygotskian in their orientation, though not always explicitly. And all three present a broader account of shared meaning making and individual learning than is presupposed by Halliday's almost exclusive emphasis on language, as expressed in his aphoristic claim that "language is the essential condition of knowing, the process by which experience becomes knowledge" (LTL, p. 94). While it may well be true that it is through linguistic interaction with others, and subsequently in the dialogue of "inner

speech", that what one knows can become the object of reflection and of deliberate manipulation and improvement, it is important to recognize that language is only one of the mediational means through which humans successfully plan, coordinate and achieve the goals of joint activity and, in the process, extend both collective and individual understanding. For anyone who is interested, I have attempted to develop these ideas and what I see to be their educational implications in 'From action to writing: Modes of representing and knowing' (2000).

But, in offering these comments, I am at risk of causing a digression from the principal aim of discussing the two readings for this part of our program: To explore the contributions made by two giants in their respective fields to an understanding of the role played by language in the intellectual development of individuals and of the societies of which they are (becoming) members. Significantly, it is through language that our exploration is, perforce, to be conducted!

- Donald, M. (1991). Origins of the Modern Mind: Three Stages in the Evolution of Culture and Cognition. Cambridge, MA: Harvard University Press.
- Tomasello, M. (1999). *The cultural origins of human cognition*. Cambridge, MA: Harvard University Press.
- Wartofsky, M. (1979). *Models, representation and scientific understanding*. Boston: Reidel.
- Wells, G. (2000). From action to writing: Modes of representing and knowing. In J. W. Astington (Ed.), *Minds in the making*. Oxford: Blackwell.

(Donald, 1991; Tomasello, 1999; Wartofsky, 1979; Wells, 2000)