HAVE SOCIOCULTURISTS TURNED VYGOTSKY ON HIS HEAD?

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In this session I will argue that Vygotsky's Zone of Proximal Development (ZPD) is a research methodology of theory and practice that attempts to establish psychology in the 'scientifically based method' of Marx. I will also argue that the ZPD has nothing to do with 'the child in social activity with others that emphasise sociocultural conditions', or communal 'funds of knowledge', or 'situated cognition', or 'activity theory' or any other sociocultural interpretation that is currently in vogue.

INTRODUCTION

In the mathematics education academic community, and indeed right across the education academic community in general, Vygotsky is continually and almost ritually evoked. That *[i]t might even be said that Vygotsky is now 'in'* (Rosa & Montero, 1990, p.59) is an understatement - this once little known Marxist psychologist of the young Soviet state has now been hailed by many as a 'genius' (van der Veer & Valsiner, 1993) and as a 'hero' (van der Veer & Valsiner, 1994). Social constructivists claim him as their founding father (von Glasersfeld, 1995) and the continual reference to Vygotsky by socioculturists has left the distinct impression that without him there would be no socioculturism. We are witnessing what may be described as 'the Vygotsky phenomenon'.

There is, however, something very odd about the 'Vygotsky phenomenon' - there seems to be not one Vygotsky but two. On the one hand we have the real (historical) Vygotsky, who committed himself to abstract rationality as an ideal (Wertsch, 1996) in the attempt to build a Marxist psychology (Cole & Scribner, introduction to Vygotsky, 1962; Kozulin, 1990; van der Veer & Valsiner, 1993; Wertsch, 1985, 1996). On the other hand we have the societal construction of Vygotsky that serves as a figurehead for an educational philosophy that places a one-sided emphasis on the 'social other' (a term coined by van der Veer & Valsiner, 1994) at the expense of his commitment to abstract rationality. An example of this one-sidedness is Vygotsky's ZPD used by Moll & Whitmore (1993) as a metaphor for the 'child-in-social-activity that emphasizes sociocultural conditions' or used by Moll & Greenberg (1990) as a metaphor for the community's 'funds of knowledge' that should be utilised by educators to reorganize instruction. It has become apparent that, in some respects, Vygotsky has been made a 'hero' and a 'genius' because he has been made to represent a predominant 'social other' relativist consensus. As van der Veer & Valsiner (1994) have stated:

> *Fame is a socially constructed entity which functions for the purposes of the constructors, rather than for the designated bearers of that role themselves. A fitting proof of the societal*

construction of Vygotsky's stature is the list of ideas that the fascinated public has been persistently overlooking in the discourse about Vygotsky (p.5).

The authors also make the point that the common interpretation of Vygotsky's ZPD can be attributed more to John Dewey than Vygotsky. The next section will endeavor to show that Vygotsky's whole enterprise was to establish a psychology in the 'scientifically based method' of Marx which consequently places Vygotsky as (to coin two phrases from Wertsch, 1996) an abstract rationalist and an Enlightenment rationalist, and will argue that this is quite contrary to the socioculturist interpretation of Vygotsky.

No six page presentation on the difference between what Vygotsky was writing about and peoples' interpretation of what he was writing about can do justice to the complexity, depth and scope of the issue. My aim, however, is to highlight the gulf between Vygotsky and socioculturism - that gulf is the contradiction between cognitive development as a process towards the ideal of abstract rationality versus the relativist emphasis on everyday, contextualised and socio-cultural thinking that downplays rationality. A more comprehensive analysis can be found in Rowlands (in print).

WHAT IS THE ZPD REALLY?

Vygotsky (1978) defines the ZPD as *the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers* (p.86). If a student can successfully complete a task (for example, the answering of a series of related questions) unaided, then prior knowledge of the abilities required to complete the task would merely enable us to say what abilities the student has - 'merely' because we would be looking at the student's abilities that have already matured - we would be looking at a 'snap-shot' of the maturation process as an end-product. To understand the maturation process **as a process** then we would have to facilitate the student's completion of a task that she or he cannot do unaided. How a student responds to the mediation in completing a task enables us to **explain** the abilities as they mature, rather than simply **describe** the abilities that have already developed. (Rowlands *et al* 1996).

For Vygotsky (1978) [*t*]*he zone of proximal development furnishes psychologists and educators with a tool through which the internal course of development can be understood* (p.87). The question as to how it is possible to understand the internal course of development lies in the distinction between actual development and potential development. The potential level of

development defines those psychological functions that are in the process of maturation but have not yet matured (Zeuli 1986), but if we are to understand cognitive development *as a process* then we have to intervene in the process. For example, if the teacher wants to know the cognitive state of students uninstructed in the subject-matter to be taught, then the teacher can ask questions that would evoke a response ('arousing the mind to life'), hence revealing the cognitive state (and bearing in mind that there are cognitive changes that are taking place in the response to the question). The essential point is that the questions to be asked would be in part determined by the content of the topic to be taught (its logical structure and theoretical objects) in addition to the students' cognitive response to these questions (a critique of the alternative 'scaffold' interpretation of the ZPD can be found in Zeuli, 1986).

Vygotsky based his psychology on Marx's 'Thesis on Feuerbach' (Wertsch, 1985; Rosa & Montero, 1990) which emphasised the point that in order to know the world we have to change it. Vygotsky called his method 'experimental-developmental': *which calls for an experimenter to intervene in some developmental process in order to observe how such intervention changes it. Again the primary motivation for doing this is to observe genetic processes: 'Our method may be called experimental-developmental in the sense that it artificially provokes or creates a process of psychological development' (Vygotsky, 1978, pp61-62)* (Wertsch 1985, p.19, emphasis added). For Vygotsky, an artificial combination of conditions can be created to reveal the action of some *specified* law (e.g the law of cognitive development. See Vygotsky, 1987) in its clearest form (van der Veer & Valsiner 1993), and this is consistent with Marx's 'scientifically based method' of ascending 'from the abstract to the concrete' (see Matthews, 1980) - first the (theoretical) *idea* then the realisation of the idea in practice (experiment) - just as the scientist does not perform an experiment without some theoretical point in mind and that the experiment is structured according to the theory (Chalmers, 1982; Toulmin, 1969). However, contrary to all this we find from Newman & Holzman (1993) an interpretation of the ZPD that seems to be tacitly assumed by all socioculturists:

> *Traditional science - including radical, ecologically valid science - sets up experimental situations that replicate real life and uses them to describe what is, in the Marxian sense, alienated reality. The Vygotskian enterprise, as we see it, is to create zones of proximal development - environments where people can perform life - and in so doing transform alienated reality. The difference could not be greater* (p.29).

The authors argue that the laboratory setting is contrary to Vygotsky's perspective because it distorts life-as-lived and does not create ZPD's that can transform life as a 'revolutionary' activity. This flies in the face of Vygotsky! According to van der Veer & Valsiner (1993), for Vygotsky, the

79

greater the artificial conditions the closer we are to understanding the psychological processes scientifically. Van der Veer & Valsiner (1993) state that:

> In his [Vygotsky's] view science was based on the reconstruction and interpretation of indirectly given phenomena, and in this respect, he saw no fundamental differences between the natural and social sciences and the study of history. Referring to Max Planck and Engels, Vygotsky argued that all of these sciences transcend the directly visible by making use of instruments and making inferences about the unknown (p.148).

According to van der Veer & Valsiner (1993) : *Many of the arguments advanced by Vygotsky have even found their way into introductory textbooks on the philosophy of science (e.g. Chalmers, 1982)* (p.154), and Vygotsky's understanding of scientific law is very similar to Chalmers' (1982) *(historical materialist)* understanding of scientific laws as *transfactual tendencies* rather than as empirical generalities or descriptions of localised states of affairs. The point is that the ZPD must be seen fundamentally as a research methodology to establish the laws of cognitive development and not a means to describe or prescribe any localised social-cultural states of affairs[1].

In his definition of the ZPD, Vygotsky makes reference to 'adult guidance or in collaboration with more capable peers'. Much mileage has been made out of 'more capable peers' by socioculturists as if Vygotsky was advocating a universal teaching method of peer group collaboration. However, Vygotsky was speaking within the context of the needs of the Soviet Union in the aftermath of revolution. *'An illiterate person' Lenin wrote, 'stands outside politics; he must first be taught the alphabet'* (Davydov 1988, p.8). By politics, Lenin meant the active and conscious engagement of the working class with the planning process of the means of production. However, the average literacy rate in the USSR at the time of the Revolution was about 30% (Rosa & Montero, 1990), and given the failure of a victorious revolution in Europe that could have counteracted the negative effects of economic backwardness prevailing at the time, meant that the Bolsheviks' only option was to launch a campaign to raise the 'cultural level' of the masses (and to implement the NEP as a 'breathing-space'), (Furedi, 1986). The aim was to mobilise every literate in the fight against illiteracy and 400,000 volunteers responded (Rosa and Montero, 1990) - hence Vygotsky's reference to 'more capable peers'. Peer group collaboration should therefore be seen in the context of the survival of the Soviet Union in the attempt to establish a planned economy and not in the context of education within a capitalist (or indeed a Stalinist command economy) society. Any reference to the ZPD as a metaphor to describe or advocate, in some form or another, the non-separation between formal education and community life would presuppose the full cultural development of humanity (whereby

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[1] In other words, Vygotsky should be seen as 'Vygotsky the scientist' and not the 'revolutionary scientist' of Newman & Holzman (1993).

the individual is elevated to that of scientist, artist and teacher). However, from a Marxist standpoint, which includes the standpoint of Vygotsky's rationalism, the material conditions for such a development is only possible under world communism (see Lenin, 1969). **What possible relevance the ZPD has for any educationalist must be seen within the context of a research methodology into cognitive processes and anything else would be to take the ZPD out of its social-historical context.**

Many educationalists today place much emphasis on student learning at the expense of having to come to grips with any theoretical issues that pertain to the content of knowledge and its relation to student cognition (Matthews, 1997, calls these people *pedagogical constructivists*). Socioculturism is no exception, and in fact many socioculturists (e.g. Moll, Hatano, Howe, Crawford) unjustly criticise those who place an emphasis on the content of knowledge to be taught as advocating a transmission or 'didactic' model of teaching. However, these socioculturists would be shocked to know that Vygotsky's rationalism regarded everyday concepts and sociocultural forms of thinking as *primitive* (Vygotsky is not the 'politically correct' hero that people imagine):

> *'Primitive thinking' in general differs from modern forms in that the former does not rely on abstract concepts. Such abstract concepts are viewed as emerging at a later historical point. One of the results of this formulation is that what we would today call cross-cultural differences were for Vygotsky and his colleagues 'cross-historical' in nature (see Wertsch, 1985). (Wertsch, 1996; p.27).*

According to Wertsch (1996), Vygotsky's 'evolutionary' model of rationality viewed universal human rationality as *being accessible to all humans, although some groups and individuals were viewed as lagging behind others in their mastery of it* (p.26). This is consistent with Marx and Lenin who, according to Ilyenkov (1982), criticised those who placed the emphasis on culture developed 'straight from life' as opposed to 'spiritual culture', e.g science and mathematics. Wertsch (1996), quoting Vygotsky, states that [t]*he basic characteristic of [the] development [of scientific concepts] is that they have their source in school instruction* (p.28), and whether any reference should be made to everyday experience or the community is a moot point!

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