

on the possibility of a cultural psychology theory of pedagogy

ABSTRACT

The most viable paradigm for conducting research in a developing country is that of socio-historical-cultural psychology. To date this paradigm has been able to clarify how dissimilar people act differently in their own situated contexts. The effects of mediated learning in context, an important unit of analysis for the discipline, have been seen in literacy and learning contexts. The paradigm, although originally very clear about the cognitive consequences of formal schooling has in recent times been a little more careful about the claims that it makes. Although the paradigm is burgeoning, to date, we do not have a theoretically motivated account of learning in formal contexts, and this paper attempts to break new ground in this area. The implications of cultural psychology for formal language learning are teased out.

Key words: cultural psychology; pedagogy; Vygotsky; theory of knowledge; potential development; remedial education; development of concepts; moral development

1. Introduction

The most viable paradigm for conducting research in a developing country is that of socio-historical-cultural psychology. This paradigm is based on the work of Vygotsky (1962, 1978) and neo-Vygotskians, the most prominent of whom are either Russian or Russian-speaking e.g. James Wertsch and Jaan Valsiner. The reason for this appositeness is that cross-cultural psychology, predicated upon the western notions of individualism and individual formal learning, tells us what children of other cultures cannot do, but fails dismally to tell us what they **can** do. To date this paradigm has been able to clarify how different people act differently in their own situated contexts. The effects of *mediated learning in context* (Cole, 1996), an important unit of analysis for the discipline, have been seen in literacy and learning contexts. The paradigm, although originally very clear about the cognitive consequences of formal schooling (e.g. Tulviste, 1991) has, in recent times been a little more cautious about the claims that it makes. Furthermore, the broader paradigm of cultural psychology has opted to focus on informal contexts of learning, and shown us that this is a very different exercise from formal learning, and that the effects in one do not necessarily cross over to the other (Wertsch, Del Río & Alvarez, 1995). To date we do not have a theoretically-motivated account of learning in formal contexts, and this paper attempts to break new ground in this area.

In this paper I shall attempt to pull together recent work in cultural psychology, and examine the extent to which we can say that we have the components of a theory of pedagogy. I shall also explore the way in which the components are constituted and interpenetrate one another. Although I shall be referring to cultural psychology (CP) in the body of the paper for the sake of elegance, in real terms, I shall be referring to socio-historical-cultural (SHIC) psychology first developed by Vygotsky, and the subsequent developments by neo-Vygotskians.

I shall start by looking at a theory of knowledge which would be consonant with this approach, and then move on to the more subjective aspects of the teaching/learning situation. I shall then go on to look at key aspects of the paradigm, e.g. the ZPD, and intersubjectivity. I shall also look at more remote concerns such as morality and emotion, as well as the formation of concepts. In the final section of the paper, I shall refer to aspects of the paradigm that still need to be developed in order to flesh it out more fully.

The rationale for using CP as a paradigm is that it entails necessarily looking at pedagogy in context, as well the processes of change which we would expect in a developing situation.

2. A theory of knowledge for a cultural psychology

Within psychological literature, there does not exist a Marxist epistemology, but there does exist a Marxist ontology. The nature of consciousness, the essential aspect of being human, is created by activity. Vygotsky himself did not develop a theory of activity in detail, but provided important aspects, such as social mediation and internalization, especially through semiotic means. It was this focus on language and concepts that Stalinist psychologists did not approve of. After Vygotsky's death in 1934, his followers developed Activity Theory in some detail, but failed to follow through in any depth on the creation of higher mental functions, specifically through semiotic means. This failure to include these two aspects (rather than concentrating on activity, tools and institutions), means that Activity Theory cannot, in and of itself, give an adequate account of the construction of knowledge.

About four decades after Vygotsky's death, an apparently spontaneous interest amongst workers from different disciplines¹ arose in the creation of a theory of knowledge, one that inadvertently had strong implications for pedagogy. Although this was long after Vygotsky's death, it seemed that his theory could well be accommodated as a variant of this epistemology. The epistemology is generally known as *constructivism*. Probably the best known exponent of this theory is Von Glasersfeld (1987, 1995), who has also had a strong interest in explaining the construction of mathematical knowledge.

Von Glasersfeld (1987, 1995) presents his theory of "radical constructivism" in a disarmingly simple way. He posits two tenets (1995: 18):

- knowledge is not passively received, but built up actively by the cognizing subject;
- the function of cognition is adaptive and serves the organisation of the experiential world, not the discovery of ontological reality.

The second tenet has upset philosophers of knowledge who would want us to be searching for the "truth" about the world. Von Glasersfeld (1987 *et passim*) contends that the world is at the other side of our experiential interface. To realist philosophers, he says that he does not deny the existence of the real world, but insists that we do not have direct access to the world *per se*.

1. This happened in 1978, and thinkers from biology, sociology, political science, logic, linguistics, anthropology, and psychotherapy were represented (von Glasersfeld, 1995: 18).

Von Glasersfeld often uses the notion of “viability”² when he talks about our construction of ideas that fit the world. Von Glasersfeld is interested in the consequences which these two tenets above have for communication. On his account, we cannot ever truly understand what another person’s thoughts are. We therefore have to construct models of what we think they know, and then test these models against what, for example, a learner may think. This ‘think experiment’, first described by Steffe, is not literally an experiment, but something which a teacher must do in order to understand what children are actually thinking. This aspect of Von Glasersfeld’s radical constructivism, together with his acknowledgement that there is a social world “out there”, has led to a view of his theory as a form of *social constructivism*³. However, it is important to point out that he does not have a theory of how the social world works, nor how children come to negotiate their way skilfully through it. (Other workers in the field of mathematics education e.g. Bauersfeld, 1991; Ernest, 1991; and Cobb, Jackel and Wood, 1992), have all seen the need to have the social included in radical constructivism, but their explanations fall short of a fully-developed theory.)

Therefore, if CP has as its central tenet the primacy of the social, then we have to look at a theory of constructivism which can contain such a tenet, without necessarily discounting the contribution of radical constructivism⁴. It must at the same time, support a theory of pedagogy. CP has such a candidate in the classical theory of Vygotsky, and further contributions that have been made in neo-Vygotskian theory. At this point readers will note that this is a widespread interpretation of the work of Vygotsky, who himself died about 40 years before these ideas became so compelling.

In the mediation of concepts between teacher and child, there must be the notion of the creation of *intersubjectivity* (Wertsch, 1985), a technical notion which goes far beyond the notion of simple social interaction. Intersubjectivity has a number of technical definitions, but primarily, it refers to the interlocutors’ developing a mutually closer and closer *situation definition* of the problem or task at hand. In learning a new concept, the teacher and child will start from radically different situation definitions (and the child may indeed have a misconception or even an absence of a concept). This does not mean that the teacher and child will, at the end of the learning activity, when the child achieves understanding, necessarily reach the identical situation definition, because depending upon the level of instruction, the teacher, as an “expert” may have to put much of what she knows into temporary abeyance. This point will be obvious to a teacher who starts out with new learners using a communicative language approach. Simple interactions are applauded. Recent work by Smythe (2002) suggests that Intermediate Phase African language teachers, by failing to engage in appropriate language tasks, leave the learners foundering, as no intersubjectivity whatsoever has been established. The children have to fumble about for their own situation definition.

If the social is the central origin of the construction of ideas, then the question naturally arises – how are these ideas internalised? For Vygotsky, we work from the social to the individual in the construction of ideas, so some account of the nature of internalization is required. The answer

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2. Rather than the word favoured by Piaget, “adaptation”, which Von Glasersfeld feels has connotations which are too strongly biologically oriented.
 3. By the same token, Piaget, who is also a radical constructivist, can be seen to be a social constructivist, in a weak sense.
 4. For example, the insight of Piaget about the development of true concepts only really taking place where there are symmetrical power relations within a group of students. This “equilibration theory” is a product of Piaget’s last works, during the 1970’s.

requires some ingenuity, since the paradigm of CP extends even to the notion of “distributed cognition” – where ideas are contained across a number of individuals. The totality of the idea is constituted by the partial ideas or specific roles which people in the group play. Furthermore, we cannot have an “outside/inside” distinction, for that would not be true to the original Marxist project. The notion of internalization makes no sense to a radical (individual) constructivist, who maintains that children construct their own understanding. The ideas are constructed through ‘actions’ which after the sensorimotor stage are not necessarily external. The situation is different in social constructivism. In recent times, much has been written about a dyad (pair) of people in the learning situation. Let us say that a learner is at level x , and the more able peer is at $x+1$. As far as we are concerned as observers, what the more able peer starts out with is negotiated with the less able learner, who comes to understand it for her/himself – it is now *her* or *his* knowledge. Part of the process is observable through discourse analysis, but the model $x+1$ remains opaque.

The Russian answer to this quandary is elegant but probably obscure to the Western reader. Leont’ev (1981: 57) has this to say:

[T]he process of internalization is not the transferral of an external to a pre-existing internal “plane” of consciousness”; it is the process in which this plane is formed.

In other words, internalization exists in the construction. Wertsch (1998) circumvents the same problem by talking about *mastery* of ideas, in which the necessary skills or concepts are acquired, and *appropriation*, where the child not only masters the skills etc., but puts up no resistance to them, and makes them her/his own⁵.

Lerman (1996: 36), in distancing himself from radical constructivism, talks of:

[i]t [being] necessary to recognize the shift from a view of the autonomous cognizing subject constructing her or his subjectivity and knowing to one of the construction of human consciousness in and through communication. Thus the individual is, in a primary sense, a product of his time or place.

This last sentence points us to an important aspect of CP. Cole (1996) would have us use the unit of analysis in CP as *mediated action in context*, a crucial feature which enjoins us to see the situation of the child, and the way in which mediation is conducted in that place. Note that notions of the standardized testing of different groups of children from different contexts e.g. socio-economic class, or across cultures is rendered meaningless on this account. For language practitioners, this means distancing ourselves from standardized testing. In my own research (e.g. Macdonald, 2002) I tailor tests very carefully to *the task demands of the situation*.

Therefore, now we have the child situated in a time and particular space. This is central to CP. We return then to the question of internalization or consciousness. Harré and Gillett (1994) would have it that acts of remembering (and for that matter emotions and attitudes), are not manifestations of hidden subjective psychological phenomena – they *are* the psychological phenomena. By extension, when an action gains significance for a child, becoming bound up with goals, aims and needs, and associated with a purpose; it is a social event (Lerman, 1996: 136). Before returning to the notion of *consciousness*, let us pause for a moment and consider that this paragraph suggests that we ostensibly have the theoretical tools to account fully for a pedagogical event (cf. for example Macdonald, 2001), namely,

5. A child may resist ideas which she/he cannot identify with, for example, the newspeak of history in the previous communist bloc. Clearly, emotions and identity are included in the process of alterity.

- memory
- attitudes and beliefs
- aims and goals
- needs
- affect, emotion
- voluntary attention.

Although these concepts still require fleshing out, this cannot all be done in the present paper. What one needs to know, is that these higher mental functions are created in the act of knowledge and learning, and as such *are* the psychological moments or aspects. There is no question that they are not crucial to the language teaching classroom. The practical implication of this theoretical point would be familiar to skilled language practitioners: when we teach language to children, it always engages the learners' attitudes and beliefs, for example. Even rarefied formal grammatical rules may engage affect.

Luria (1973) points out that voluntary attention (a higher mental function) is a social act, which is the product of forms of activity created by the child during his relations with adults, in the complex regulation of this selective mental activity. We can go on to say that consciousness is constructed in communication, in discourse practices, in specific places, and at particular times.

The challenge for CP is to account for the aspects of teaching in terms consonant with "mediated action in context", but also in a way which explains consciousness. Language is a correlative of consciousness. Consciousness also emerges from the joint construction of intersubjectivity, generally through *semiotic* means. We need to have a last look at intersubjectivity as a crucial aspect of social constructivism (while we return to the concept in Section 2 below). Lerman (1996: 137) has this to say:

[...] the specificity of the intersubjectivity of every teaching/learning situation as a function of the setting, the activity, the actors, the texts and so on. It assumes that a cultural psychology ignore the differences that the individuals as unique "collections"⁶ of subjectivities and positionings, bring to the situation. [...] For Luria, following Vygotsky, those actions, including attending, distinguishing, and so, are themselves social acts, learned in interaction with others.

Lerman (1996: 138) does admit that Vygotsky and his immediate followers would not have talked of the regulation of subjectivities within discourse (these being insights from the post-structuralist era). Nevertheless, he thinks that at the heart of their psychology was the familiar Marxist notion that human behaviours and social relationships are products of economic and other relations.

If the notion of subjectivity (i.e. the individual) is constituted through social practices, then it may be appropriate to regard the individual as constituted through multiple subjectivities, a fragmented self rather than an autonomous unitary subject. Aspects of one's self may be revealed in different discourses. This may be laid bare in the different types of discourse in a classroom, and in the manner in which the power relations move between children and to and from the teacher.

The situation of cognition within practices is given a Marxist connection with the views that thinking is a dialectic practice, goal-oriented and never without mediation, through tools, sign systems or semiotic mediation of people in context. Mediated action in context is the usual unit of analysis, i.e. that is what we are out to explain.

6. In a theory of pedagogy, we *would* want the possibility that a teacher can diagnose the uniqueness of the students in terms of their learning contexts, and their learning histories, for example, in terms of motivation, purpose and so on. CP would only be a general theory if it did not give us the tools for working out what any particular learners understands, and his general orientation towards formal learning.

An everyday conception of disciplines within a curriculum such as history or geography tends towards an idea of as “pure” abstract cognitive functioning. Knowledge is reified as the highest level of intellectual activity. Lave (1988: 190), who works with the idea of “situated cognition”, challenges this reification:

It is not at the level of cognitive processes that the unique, the non-routine, the crisis, the exception, the creative novelty, the scientific discovery, major contributions to knowledge, ideal modes of thought, the expert and the powerful, are brought into being and given significance and experienced as such. These are all matters of constitutive order in the broadest and most complex, and they are constructed in dialectical relations between the experienced lived-in world and its constitutive order – in practice.

There is a great deal for us in this view. Implicitly there is the teacher as expert, but also the teacher as observer, the teacher as creator of learning situations, a teacher who learns to live with the unexpected. The children are co-participants in the process, the ones who stumble on new insights, the ones who know more than the teacher does on occasions, who create knowledge with their teachers and their peers, or refuse to create knowledge. The students, especially older ones, will vie for power in the class, with each other and the teacher. Above all, they, together, are creating *intersubjectivity*, unless there is active resistance. “The overt expression of individual subjectivities in the classroom setting forms part of the constitution of the specific intersubjectivity activity” (Lerman, *ibid*: 146).

The richness of knowledge creation is to be found in the analysis of classroom negotiations of meaning, the pull and push of power play, etc. For the teacher and the children, much of this is learning below the level of awareness. Bringing it to awareness has consequences for how teachers teach and how children learn. The teacher learns to reflect, and the children learn how to learn, in other words, start to develop a metacognitive stance (Watts and Bentley, 1991).

‘Collegiality’ is regarded as an outcome of the adoption of constructivism. Watts and Bentley see it as implying negotiation, empathy, communication, responsibility, collaboration, respect sharing and conversation. As Mahoney (1988: 308) says:

[a] safe, caring and supportive relationship begets increases in explorations of possibility; these in turn beget phenomenological realities, which entails opportunities to affirm (literally ‘make firm’) more viable or satisfying styles of experiencing.

Watts and Bentley (*ibid*) also include a notion of *oppositonality*. They acknowledge that constructivism is not the only theory of knowledge, and also that the nature of what has been created both by children and researchers is provisional and contestable. In language learning, this is most transparent. The language knowledge that children construct – especially of words and concepts – both grows and reconstructs itself over time, repeatedly, and in greater depths.

Constructivism in schools has many faces (Perkins, 1999), for example, history, physics, mathematics and language arts. Teachers have been confused by constructivism not seeming to be one thing. Phillips (1995) identifies three distinct roles in constructivism. They are *the active child*, *the social child* and *the creative child*. How do these three roles relate to one another? The active role of the child is basic; in practice, social and creative aspects often accompany this role. However, the active child does not logically require the other two (Perkins, 1999). Active children (in comparison to passive children) engage in learning, leading to better retention of what they learn, greater understanding and the active use of knowledge. (Ausubel, Seminar, 1978). In order to maximize the profits of language learning, all three of these roles would be needed, with the creative child perhaps being the child that takes the most language risks. The silent child, however,

cannot be discounted. Silent language learning is a known phenomenon; we may hear things that we may use – at a much later date – or at least this has been my experience.

3. Other aspects of Vygotskian theory

3.1 The zone of proximal development (ZPD)

An enormous amount of interest has been generated by the concept of the ZPD. There are various interpretations of the Zone of Proximal Development (ZPD) and there are now many papers on it. Each of these helps us in some way to understand what working in the ZPD entails. I shall show how it may be construed, but then settle with the seminal paper by Wertsch (1985), in which he developed the ZPD as a theoretical construct. The tripartite definition of situation definition, intersubjectivity and semiotic mediation has much to recommend it.

In the original conception of the ZPD, Vygotsky was trying to show the limitations of conventional testing (of his day). Working with the notion of mental age (a notion now no longer in use), he showed that two children with the same mental age could have rather different ZPDs. One of the interpretations defines the zone as what children can achieve in assisted performance. A simple way to represent this is by “crocodile jaws” or (ideally by a circular staircase). Thus:



Figure 1: Children at the same level with differing ZPDs

In Figure 1, Child 1 has a narrower zone than Child 2. The lower line represents the “actual level of development”, and the upper line represents that “potential level of development”. In the classic reading of the ZPD, this zone is different for every child, and by extrapolation, children’s ZPD for different higher psychological functions and different complex skills (for example, music) are idiosyncratic. The implication of this is that each child must be dealt with in a unique way, to maximize his or her individual development. It is assumed that the ZPD is dynamic and cyclical, for as the child passes through one ZPD, the potential level of development becomes the actual level of development and a new potential level appears. A representation of this occurs below:

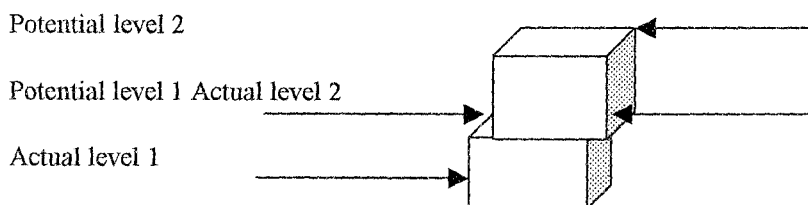


Figure 2: A dynamic model of the ZPD

Looking at this model of the ZPD, we need to speculate on how it would work in language learning and teaching. The notion of ZPD is also applicable to language learning. A teacher who can work with a child within her ZPD, for her particular stage of learning, will be maximizing

learning on the part of the child. There is a sting in the tail though. The classic definition refers only to dyadic situations. If we stay with this classic definition, then we would be dismayed by the limiting effects it might have, thinking only of tutor – tutee or mentor – mentee situations, which in general education, are extremely privileged. We have to think of another way through.

The dilemma of not working with only one individual may be partially resolved by working with small groups and by setting up a collaborative structure to ensure that the more able children tutor the less able. The group will then have a more or less common level of achievement. Here the literature on cooperative group work may be of help – showing what the possibilities and limitations of teaching through heterogeneous groups are (Johnson & Johnson, 1999). Apart from cognitive issues, questions of social development are addressed at the same time. Working extensively with a class, so that its learning history is intimately known by the teacher, is another partial solution. The practice of teachers teaching only particular subjects may hinder this process. Furthermore, with large class sizes, it is difficult for the teacher to determine individual levels of competence at every learning opportunity. She may scarcely know the names of the children, let alone the aptitudes, and family situations which may be affecting learning.

There is also the challenge that the classic definition relates to problem solving *per se*. This does not necessarily severely limit the teacher, who may teach in a way that is diagnostic of the actual level of development and then introduce new concepts in such a way that simultaneously differentiates the new concept from the previous one, as well as shows its similarities (and as Vygotsky (1962) points out – similarities are harder to conceptualise).

Vygotsky holds that the only effective instruction is that which occurs within the ZPD. Returning to the simpler model in Fig. 1 for a moment, one can ask: what does teaching at the child's/group's *actual* level of the ZPD result in? The strict theoretical answer is that they will not develop. Perhaps they will simply add extra information on to what is already known. However, teaching at this level would find the children bored. If one teaches below the level of actual development, children will perform with skills and concepts that they already know. Teaching above the potential level will lead to learning anxiety, and rote learning without meaning.

These issues arise from the conservative view of the zone of proximal development. The concept has broadened considerably over the past decade, and some of the new views are not true to the spirit of the original concept. We, therefore, should be judicious in our appraisal and use of the broadened meanings.

Allal & Ducrey (2000) talk about differing conceptions of the ZPD, arising from the tension between assessing children's progress against the needs of the curriculum. They see the drive for the original definition as being to try to resolve the tension between the child's development, and the effects of instruction. They refer to teaching within assessment, and to assessing within teaching. This analysis, while apposite in its own terms, goes beyond the original spirit of the concept. Nevertheless, Allal & Ducrey (2000: 146) do have a clear idea of what the ZPD is in classroom terms. They say that the interactive aspects of the instructional setting create, at least potentially, multiple zones of proximal development that vary from one child to another depending on the appropriateness of teaching interventions with respect to each child's present level of competence in the task being addressed. Brown and her co-workers have proposed that a *community of children* is created by the emergence in the classroom of multiple, overlapping ZPDs through which children "navigate via different routes and at different rates" (Brown, Metz and Campione, 1996: 161). In her work within remedial education, Brown was particularly creative in working with what she calls "reciprocal teaching". In language teaching terms this would be a dyad (two children), with slightly differing capacities, engaged in solving a common task. Pair work is familiar

to language teachers, but the idiosyncratic notion implied here makes the situation a little more sophisticated, but possibly well worth the effort. We should also bear in mind that the dyads must change, otherwise the more able child in the dyad will not be fulfilling her own potential.

Another group, including Brown, Campione *et al.*, working within specialized education, have worked closely together to understand the implications of work on the ZPD in remedial education. They have looked at issues such as transfer and speed of problem solving. While transfer is a culture-neutral concept, speed is not: it is culturally mediated. The application of this work to South African conditions still has to be established, as traditional South African conceptions of intelligence include thoughtfulness and taking one's time. As time moves forward, the notion of time in suburban schools may shift towards the teacher's notion of "a reasonable time for a task". This, however, is a matter for empirical investigation. Currently many township teachers complain bitterly that the children are "too (i.e. very) slow" for example in finishing their class work or tests. In a piece of cross-cultural research, I found that Scottish children could do a specific task in three minutes, whereas the African children in Gauteng, the Northern Province and North West⁷ took about 20 minutes. The notion of time is imperative to the production of learning support materials, as well as the implementation of any new curriculum. In other words, teachers who complete half a course and pass the children upwards, a pattern that repeats over years, are impairing the children's learning.

If one takes a defining criteria for the child's engagement in the ZPD as the child's *motivation*, then it is difficult to see whether this could ever work in a classroom situation, because the children (especially younger ones), have no choice in the curriculum design and even the teachers have to stick to a closely-designed curriculum situation. Are children really going to engage in classes if they do not have a choice? And what about working in groups? The fact that one teacher defines the question and restricts the possibilities of exploring the questions uppermost in the individual children's minds undermines such efforts at collaborative activity. The way in which the teacher phrases questions may strongly limit the range of responses from the children. For example, if the children are shown the word "horse", one child gets it wrong, and the children are asked for another try, after which the teacher goes onto other "h" words, then the implicit rules for the classroom are very abstract. In other words, the teacher is trying to elicit words starting with "h" but does not tell the class this. It has been suggested that teachers make the routines much more explicit, and use fewer questions. Explicit routines should become more complex; the task demands should become greater as the children become more competent.

Although the original conception of the ZPD was developed and based on dyadic situations, Blank and White (1999) feel that attention should be channelled into developing this concept for group work. They talk about the uncertainty of learning, and assert that the process of acquisition is fraught with negative emotion where the child experiences the anxiety and uncertainty of a bewildering new experience. These effects are minimized in dyadic settings, while the group cannot experience the same benefit. Because the levels of the children within the group are very different, a "scaffold" offered to one child is not appropriate for the others. Children's signs of uncertainty are so fleeting, that the teacher may miss them. It is difficult for teachers to assess the needs and competences in a rapid, fluid situation (p. 336).

Children have to be able to benefit through vicarious learning; children have to learn to listen to what is being offered to another child, and recognize that what is said may be of benefit to them

7. Children are completely recalcitrant in this matter. They just keep on writing slowly, their heads virtually on the paper, and completely ignore being berated by their teachers.

(Blank and White, 1999: 337). Through the background buzz of learning, both teacher and child have to learn what is going to be of benefit to them and to filter out the rest. This is a nearly insuperable challenge to the young learner.

3.2 The Development of Concepts in the Second Language

The Concept for Vygotsky

Vygotsky (1962) was very interested in the development of concepts, which he called the *word*. Given the time when he was writing (i.e. the 1920s) much of linguistic theory as we know it today did not exist. In other words, there was not a great deal written on syntax and pragmatics for example. Vygotsky went as far as saying that the word was the unit of analysis in learning about the mind. The “word” was an act of generalization, with layers of meaning which grew with slow accretion, and in a systematic way. This is of interest to the teaching of what we currently call “concepts”, in different school subjects. For Vygotsky, “scientific” concepts are those which are developed at school in a systematic way and they could be reflected upon, and brought to consciousness, much more rapidly than everyday concepts which lie implicit in our thinking for a long time. It is only at a later stage that we come to be able to consciously reflect on our everyday thinking.

Vygotsky (1962) designed an ingenious method called “double stimulation”, for studying the development of artificial concepts in both children and adults. He identified a number of pre-conceptual stages, emanating from “true” concepts, where traits in concepts are abstracted and then resynthesised (ibid: 139). He goes on to say (ibid: 143):

When the process of concept formation is seen in all its complexity, it appears as a *movement* of thought between the pyramid of concepts, constantly alternating between two directions: from the particular to the general, and from the general to the particular. [...] Representation and judgments then interact in the course of concept formation – which means that concept formation is carried out from both sides, from the concrete and from the general almost simultaneously.

Vygotsky (ibid: 141) also made the “modern” point that “analysis of reality with the help of concepts precedes analysis of the concepts themselves”. Thinking consciously about concepts is much more difficult – and comes at a much later point – than the initial use of the concepts themselves. Today we call this ‘metacognition’. A great deal of interest has been shown in metacognition, (cf. Macdonald, 1995) as a way of getting learners to learn strategies for learning and self-monitoring, skills which are intended to carry over and apply to rapidly changing knowledge bases.

Vygotsky, himself a polyglot, did not have time in his short life to write much about the learning of another language. In the next section, I shall examine the work of Belyayev (1963), a Russian teacher of foreign languages. I shall look specifically at the nature of language and thought that he proposes. His work is consonant with the cultural psychology paradigm, although it also predates the theory of constructivism.

The Concept for Belyayev

Belyayev (1963) said that is necessary to distinguish between two basic aspects of teaching: *teaching* and *instruction*⁸. In practice, neither exists without the other, as they form an organic

8. In translation, the Russian does not distinguish between teaching and learning – rather it expresses teaching/learning as a unity.

unity. Education should strive to assist the development of children, while instruction should consist of enriching them with theoretical knowledge and practical skills and abilities. The teacher should have a developmental understanding of intelligence, *feelings, will, character, and intellectual development* of her learners. This perception, while in accord with outcomes-based education, is not exactly in line with Vygotsky (1978), who argues strongly that learning leads development.

The grasp of linguistic materials is dependent on the children's previous experiences. Children first perceive new material from the point of view of their home language, and later from the perspective of the actual knowledge they have at their disposal. Material is most easily, quickly and firmly remembered when children have the aim of remembering and *the consciously-willed intention* of assimilating the material within a specific time. *Active reproduction* requires the production of the material from memory without active assistance. This activity incorporates *reasoning*. The teacher must use active reproduction with testing and assessment. What is important here is the active nature of learning, and consciously-willed intention. If children are sitting rather passively (peeping out of the window at another student), they will fail to engage with that which is to be learned).

For Belyayev, reasoning only occurs when one comes into collision with a new and unaccustomed situation to which it is difficult to adapt oneself adequately. First, reasoning is stimulated by a *problem situation*, that is, a question to which the children do not have a previously known and learned, ready, answer. The Piagetian notion of "cognitive conflict" springs to mind here. Secondly, reasoning operates in *free speculation*, in the presence of a new and unfamiliar situation. The learner finds a solution to the problem by inventing something new. Exactly how this would operate in an additional language is not clear, but the stimulation and speculation are central tools in teaching/learning. Belyayev goes on to help us.

Learners should be systematically stimulated to speculate independently. Children will then have a striking ability to: guess the meaning of new words; translate a new text; and formulate new rules. (These principles apply to all subject disciplines.)

It must be said that translating texts might really be restricted to the advanced learning of a foreign language, that it is not within the ambit of teaching children an additional language. The other two activities are to be found in cognitively-challenging courses such as the *Bridge Series* (2001).

There is a link between vocabulary and thought processes. There are visual, aural, functional and semantic aspects to this link. This statement accords with the broader Vygotskian (1986) notion of using as many modalities as possible in learning. However, the semantic aspect of vocabulary is not just the contextual meaning of words. Children must move towards learning the concepts, ideas, perception and significantly the *interrelation* between concepts. This would be emphasised by both Vygotsky and Ausubel. There must be a direct link between the second language and thinking (Belyayev, 1963: 20):

But the most important point is that students can only acquire a language as a means of communication when it is directly linked with their thinking. Only when the apprehension of speech is accompanied by an immediate understanding of its content, and when students are able at will to use the acquired words and grammatical constructions to express their own thoughts, may one say that they possess a true link between language and thought.

If one has theoretical knowledge alone, language functions only as an *object* of thought. This might make sense as a metacognitive stance. The language-to-be-learned is not itself linked directly to thought. Although we may be moving towards an "intuitive" (genuine and thorough)

use, we may also experience conscious acquisition. Belyayev himself does not have a theoretical definition for “intuitive”; rather he treats it as an empirical fact.

On this account there should develop an organic unity of the second language with thought, and a direct link between these two phenomena. The basic aim of second language teaching must be considered that of *thinking* in the second language (ibid: 220). Belyayev argues against translation as the general method of language teaching, because he thinks that then the second language is only indirectly linked with the faculty of thought. He also cites empirical data to show that the first and second languages express concepts in a non-identical way. He contests that there is not a universal, eternal and unchangeable system of concepts (ibid: 50). In touching on this, Belyayev touches on a contested idea in cultural psychology, that is, whether there is psychic unity or not amongst the different peoples of the world. The principle can here be pulled together from a CP point of view. Belyayev and Vygotsky are both very interested in the development of concepts in language. While Vygotsky did a well-known experiment on concept formation, using a Marxist orientation, Belyayev moved into a rigorous account of getting learners to think in their second language. This is central to learning through the medium of a language which is not your native tongue. Probably one can only get to what it means to think in your second language through subjective reports. But certainly there cannot be conscious awareness of the rules of the additional language one is thinking of: so for example, an English-speaker should cease to be aware of the difference in word order when speaking in Afrikaans.

3.3 Moral development

When wearing his hat (1932/1960) as an educational psychologist, Vygotsky has something to say about both the moral and the emotional aspects of education. These earlier ideas do not have the stature of his later ones, but he did consider these aspects important.

Recently there has been constructivist literature on the inculcation of moral sense in children. There is a sense (De Vries, Hildebrandt & Zan, 2000) that constructivism can be used in early education (i.e. with pre-school children). From what we know about children’s cognitive development at this stage (and Piaget, 1932/65) it is clear that children are not yet ready to perceive the results of their actions on other children, especially spiteful and hurtful behaviour. Piaget (ibid) also contended that it is imperative that children become autonomous moral agents (where the moral sense springs from the inner self) rather than having heteronymous morality forced upon them. In the latter situation, Piaget said that coercion may result in surface manifestations of moral behaviour, and children may learn to be unduly conformist, or alternatively, openly rebellious.

For Piaget, if respect is shown to children by providing explanations for moral rules, mutual respect may be the result, and the young child may begin to understand the reciprocity of moral behaviour. There will certainly be a *décalage* in the formation of moral attitudes over the course of childhood. Nevertheless, the “social constructivist” approaches being posited are actually to be understood as “weak” social positions, because interaction between the teacher/parent and children is being advocated, but the notion of intersubjectivity is not clearly integrated into the position. Having said this, it is possible that intersubjectivity will be used in a morally-driven situation, where the teacher and children move towards one another’s perception of the problem situation. However, this has not been explored in the literature. Rather, we shall turn to an explicitly Vygotskian perspective, which includes language and culture as key components in the construction of morality.

One account of a Vygotskian approach (Tappan, 1997) draws on the developmental relationship between speech and thinking. The crucial aspect of this account is the mediation of moral

functioning via “inner moral dialogue”. Moral functioning has a social aspect and moral development is socio-culturally situated.

Tappan (1997: 83) has a position with four aspects:

1. moral functioning, as with all higher mental processes is necessarily mediated by words, language and forms of discourse. (The weak version of social constructionism would not take issue with this).
2. mediation occurs primarily in private language or inner speech, in the form of a dialogue. (The notion of dialogue is strengthened by the consonance with Bakhtin’s work).
3. language is the essential social medium. Processes of social communication and social relations necessarily give rise to moral functioning.
4. language in its broadest sense is a sociocultural phenomenon, consequently moral development is always shaped by the particular social, cultural and historical context in which it occurs.

Internalization is obviously implicated here. Children do not simply make internal what was once external, but over time, *create* their own internal plane of moral thinking, feeling and acting, based on their experiences in their own social mind. Moral action for example, being faced with the question of how to act in a particular situation, is fundamentally and irreducibly mediated action. The child is embedded in a particular socio-cultural situation which sets basic parameters on the way the person responds.

The notion of imposed and constructed senses of morality must still be addressed. The teacher may model morality, but the children must still “make it their own”. Buzzelli (1993) contends that young children should not simply recite moral rules in the language of the teacher or caretaker, but rather “retell” the moral rule in their own words. This provides the basis for a positive type of self-regulation and also means that the children will obtain greater understanding, because they have reconstrued the rule in terms of their own previous and current concepts. The learning will, therefore, be more deeply integrated.

Tappan (1997: 95–6) takes us further than moral action. He holds that the most important empirical question from a Vygotskian perspective concerns the issue of motivation. What might be the motivation for children to engage in genuinely moral actions? Vygotsky (1927/1986) seems to provide one answer, in considering the relationship between motivation and thought, namely that the final step of the inner planes of verbal thought leads beyond thinking to feeling and willing. He says (*ibid*: 252)

Thought is not the superior authority in this process. Thought is not begotten by thought; it is engendered by motivation, i.e. by our desires and needs, our interests and emotions. Behind every thought there is an affective-volitional tendency, which holds the answer to the last “why” in the analysis of thinking. A true and full understanding of another’s thoughts is possible only when we understand its affective-volitional basis.

Tappan (1990) has tried to give voice to a conception of moral functioning that captures the complex interrelationship among the cognitive, affective, and volitional dimensions of moral life.

It remains then, very important in terms of the situatedness of moral concepts, that teachers gain some acquaintance, in our local situation, of African morality in its broadest terms. We should not be upset, for example, when teachers address children in a peremptory tone, nor when they use children as skivvies. Verhoef and Michel (1997) give a clear exposition of the different way in which children are treated in the paradigm of traditional African values. Having said this, our ethnocentric views of children as real people with genuine and real rights will take time to permeate classes where the teacher has a western orientation to the value of children.

3.4 Emotion in pedagogy

We can see that much of what Tappan has said about morality can be applied to the development of emotions in different social/cultural contexts. Children have culturally appropriate expressions of emotions mediated to them. The expression of emotion also runs along a developmental line. The weeping of a Grade 1 child would not be condoned in a Grade 7 child. Self-regulation of emotions will be developed over time.

A warning note is sounded by Menon (2000: 44), who makes the point that all emotions are cognitive appraisals or evaluation, and that emotions are grounded and experienced in our bodily selves. The extent to which we “feel our feeling” cerebrally or by somatising them varies across cultures. However, we know that young western children, who are high achievers, are likely to express their anxiety in vague physical symptoms, like having a tummy-ache. Cognition and emotion are inextricably linked, and the second cannot be ignored in teaching, especially teaching which is demonstrably taxing to the child. The good language teacher would be monitoring the affective level of her learners, and be prepared to repeat lessons in different ways, until she discerns that the learners feel comfortable with the new material.

The idea that culture and psyche cannot easily be disentangled from each other, gives us the possibility of a dense understanding of people’s emotional reality, while challenging us by the fact that morality and emotions are contemporaneously intertwined. Vygotsky (1932/1960) sees the development of emotions as the understanding of the relationship between emotions and other psychological processes rather than the emergence or importing of emotions *per se*. Emotion (and therefore) motivation, are inextricably intertwined with cognition, and if the first two are negatively affected, children’s performance is likely to suffer. So, on this point Vygotsky (1932/1960) and Piaget (1932/1965) concur.

4. Concluding remarks

Motives, aims and goals, voluntary memory and attention, attitudes and needs, emotions and affect are all aspects that one would need to account for in a theory of pedagogy. In an exploratory paper such as this, not all of these aspects could be covered.⁹ The construction of theoretical superstructure remains for the future. There is, however, a sense that cultural psychology has sufficient structures in place to scaffold us into both a deeper and higher understanding. The immediate area to “colonise” is heterogeneous cooperative group work which, while currently naïve theoretically, can provide a rich theoretical ground for CP reanalysis. Since group work is so intrinsic to the new South African curriculum, it deserves urgent attention.

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9. In a further paper the ZPD needs a fuller analysis, and the notion of “distributed cognitions” must be further interrogated

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