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Schooling and the development of verbal thinking: TshiVenda-speaking children's reasoning and classification skills

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The article examines rural South African primary school learners' performance on classification and generalisation tasks to demonstrate the connection between verbal forms of thinking and the sociocultural activities in which, and through which, verbal thinking develops. The study explored the relationship between learning and development and the specific linguistic practices and sociocultural activities in which learners' development takes place to demonstrate the functioning of heterogeneous thought processes employed by learners during problem solving activities. The results suggest that different ways of thinking and concept development are rooted in and shaped by the forms of sociocultural activities and discourse modes in which learners participate. The specific finding on the peculiar differentiation of abstract-categorical mode of reasoning; informed by TshiVenda discourse modes of thinking, emphasizing abstract but functional class relations, has important implications on how formal knowledge and classroom learning activities for these learners are to be organized.

Keywords: classification; cognitive development; concepts; reasoning; verbal thinking

Today, the South African primary school is going through a crisis situation comprising, among other things, low performance of learners in standardized local and international reading and numeracy tests (see Fleisch, 2008). The problems are often ascribed to poor teacher performance and teaching methodologies as well as regularly changing curriculum policy statements (cf. Jansen, 1997).

The 2004 Human Sciences Research Council's study suggests that only 17% of learners learning in the indigenous, mother-tongue languages had not attained the minimum level of reading performance; with further studies suggesting that these children had difficulties with phonological, decoding and comprehension abilities (see Fleisch, 2008). On the basis of a consideration of a series of studies suggesting a pattern of underachievement in basic reading and numeracy skills, Fleisch argues, that:

> It is these South African children who struggle to read for meaning and to perform simple numerical operations — whose learning remains context-bound and non-generalisable (Fleisch, 2008, p. 30).

The problem of learning and the potential for generalizability of abilities acquired through specific learning processes, has long characterized research in developmental psychology and education. This problem was framed in terms of the relationship between learning and development on the one hand, and the specific contexts or social settings (as well as the traditions of practice such as formal schooling) in which, and through which, learning and development take place on the other hand.

This specific relationship between the learning that happens during formal schooling and the process of development were the theoretical foci of Vygotsky's analysis:

> In order to elaborate the dimensions of school learning, we will describe a new and exceptionally important concept without which the issue cannot be resolved: the zone of proximal development (Vygotsky, 1978, p. 85).

Vygotsky's project was to explicate on the intricate internal regulatory processes awakened by the internalized, initially external forms of knowledge and abilities acquired by children in the course of their learning during schooling. Cognitive development, from this perspective, is explained as the internalization of external knowledge and abilities mediated to children through the knowledge traditions and practices of their society and culture.

The present article, working with data from a larger doctoral study (Muthivhi, 2008), seeks to uncover this specific relationship; between learning and the development of problem solving abilities on the one hand, and the tradition of schooling — as well as the specific linguistic practices, within

which children's learning and development is socially organized and mediated, on the other hand.

An understanding of the specific modes of verbal thinking processes that characterize children's problem solving activities may provide insights into how best to organize classroom discourse-thinking modes that would make possible — on the part of learners, reflective and self-regulative thought processes during problem solving activities (also see Muthivhi, 2010).

Development as related to, and arising from, learners' practical activities

Vygotsky (1978; 1981) and Luria (1976; 1979) hypothesise that the forms of social activities in which individuals participate leads to shifts in their cognitive development and functioning. Therefore, participation in social activities that required formal and abstract forms of thinking and reasoning should result in the development of the associated forms of thinking and problem-solving strategies.

This theoretical approach is exemplified in Luria's (1976; 1979) experimental investigation of the development of thinking processes in the course of social and cultural transformation in the Central Asian Republics. This context suited Luria's research because the Soviet Republics were undergoing rapid socio-economic changes following the 1917 Russian Revolution. The context therefore afforded Luria the opportunity to investigate the associated changes in basic psychological tendencies and to examine the development and manifestation of new psychological processes that resulted from the collectivisation and mechanisation of the hitherto simple agrarian economies of the peasant populations. These processes were accompanied by the introduction of various literacy programmes that were aimed at facilitating participation in the new *collectivised*[1] rural economy.

Luria's (1976; 1979) study established that the rapid social and economic changes that were introduced to the subsistence agricultural economies of the Soviet Central Asian Republics of Kirgizia and Uzbekistan, as well as the introduction of formal schooling, had resulted in changes in the ways in which people organise their thinking. According to Luria, the demands of the practical activities in the newly introduced *kolkhoz*, or collectivised farms, and the experience of formal learning in adult classrooms contributed to the development of a newly emerging consciousness and psychological functioning amongst the Uzbeki and Kirgiz people, characterised by formal, abstract modes for thinking and problem solving.

However, while Luria's study was credited for applying the historical-developmental method, it was questioned for its assumption of quite broad changes in people's modes of thinking and its assumption of the absence of theoretical forms of thinking in traditional societies (Cole, 1996). That is, the interpretation of the results in 'historical-universalist'[2] terms suggested that only formal schooling and western industrial economic activities were necessary conditions for the development of abstract forms of thinking. Further, the assumption that western industrial socioeconomic conditions represented the *telios* of human development was similarly critiqued.

In South Africa, Luria's study was replicated by, among others, Moll (1994) and Muthivhi (1995). Moll's study found a lack of formal, abstract thought processes on the part of a rural elderly subject who had no experience of formal school learning; and argues that formal schooling is necessary to the explanation of the emergence of formal, abstract thought processes. Muthivhi's study among secondary school, rural adolescent learners revealed that the learners used abstract, categorical forms of thinking, but also employed functional reasons to justify their abstract, categorical classifications. There were therefore no neatly differentiated findings suggesting a consistent employment of abstract, theoretical forms of thinking and problem solving resulting from formal school learning in this case.

Meanwhile, a recent study by Cubero, de la Mata and Cubero (2008) elaborated on *what* changes during participation in formal learning processes and why such changes happen. Using classification tasks that required their subjects (adult class learners) to classify lists of domestic menus in two different ways, the study found that both the novice and advanced learners employed everyday modes of classification when using familiar objects in familiar task situations such as preparing domestic

meals using the local Mediterranean menus whereas the advanced learners were more adept at employing an alternative, formal mode of classification with abstract justifications when requested to employ an alternative mode of classification. Their novice counterparts, on the contrary, resorted to the everyday mode of classification that resembled familiar, domestic food preparation activities and were thus unable to employ an alternative, abstract-categorical mode of classification.

As a result, Cubero et al. (2008) argue that what accounts for the different forms of thinking is the use of different meditational means in different activity settings. That is, the use of formal, abstract forms of knowledge in school accounts for a change in the conceptual tools people use for thinking and problem solving and this change is accounted for by the activity setting (that is, the formal learning context) in which the conceptual tools are to be applied. For example, even the advanced adult learners in the study could not apply the formal classification mode to complete the domestic menu preparation task as the activity setting (involving domestic food preparation activities) demanded peculiar skill and cognitive abilities.

The finding of this study is particularly pertinent for the specific question the present article examines because it raises the question of thought and problem solving as related dialectically to the activity settings of its application. Located in this tradition of research, the present study elaborates on the specific ways in which TshiVenda [3] speaking primary school learners in rural South Africa organized their thinking to respond to problems presented to them within an experimental task situation. The present study further illuminates the ways in which their organization of thinking is related to the specific culturally organized activities of learning and development in which they participated.

METHODOLOGY

Design of experiment

The design of the experiment was informed by the assumption that primary school learners; with the experience of schooling, would organize their thinking and solve problems using an abstract-categorical mode of classification which is shaped by the ways in which formal school knowledge and the activities of its acquisition are organized. That is, when faced with problems that required classification of objects, learners would rather employ a formal, categorical mode of classification than the concrete and graphic-functional mode.

Participants

Eighty participants took part in the experiment. Participants were randomly selected from the class registers of Grades 1, 3, 5 and 7. The average age of the participants was 6 years in Grade 1, 8 years in Grade 3, 10 years in Grade 5, and 12 years in Grade 7. Twenty participants were selected from each grade.

All participants lived in rural setting, with a small urban centre comprising the town of Thohoyandou, which includes the suburbs of Sibasa, Makwarela, and Shayandima.[4] Although comprising an emerging urban environment, this is still an essentially rural and traditional socio-cultural setting. Here, the modern and the traditional co-exist in an intriguing relationship; with traditional villages sprawling over where urban residences dot the landscape. Motorized vehicles contest for right of way with livestock such as goats and cattle in the streets while village women plough along the streets' pavements to plant mealies for lack of sufficient subsistence land; which is fast disappearing as a consequence of the urbanisation process.

The potential effect of the gender of the participants on problem solutions was not taken into account or expected to have an effect on their performance. It is also interesting that not even Cubero, de la Mata and Cubero's (2008) study, which examined male and female participants' performance on domestic tasks, traditionally associated with gender roles, suggested any gender effect on participants' performance. It would however be interesting for further research to examine the possibility

of gender effect on task performance as this may have crucial implications for the education of male and female learners and the differential performance levels in schooling.

The language commonly spoken in the area is TshiVenda, which was also used as the medium of instruction for Grades 1 to 3. English was officially to be used as medium of instruction from Grade 4 onwards. Almost all learners and teachers spoke TshiVenda fluently. The language used during the interviews was TshiVenda, which both the participants and the researcher knew well. All interviews were conducted by the researcher, individually with each participant and this happened from early in the morning at about 8h30 or 9h00 after the start of the school day and continued to the afternoon at about 12h30 to 13h00.

Participation was voluntary. Permission for learner participation in the interviews was obtained from the school which, through the school principal and the teachers who sought the consent of the parents and explained in detail every aspect of the study, also advised that any child was free not to participate and to withdraw from participation at any stage during the process. Learners were also individually asked if they wanted to participate in the interviews and were only included in the final list if they expressed an interest in participating in the study.

Materials

The materials comprised four A4-size white cardboard sheets, each having a group of four black ink drawings. The following objects were represented for each of the tasks (see the graphic representation of the objects used during the interviews in Figure 1:

- Task A: pick, panga/machete, hoe and wheat
- Task B: kraal, giraffe, goat and cow
- Task C: tree, donkey, lizard and cow
- Task D: hut, wheat, tree and mealie

An additional A4-size cardboard sheet, with drawings of a *knobkierie* (club), bow and arrow, spear, and antelope, was used for the pre-testing or demonstration stage.

The tasks were adapted from Luria's (1976) original study and were first adapted for uses in South African rural settings by Moll (1994) — see also Muthivhi (1995). The task items represented natural objects found or used in the participants' culture such as the plants that grow naturally or were planted; animals found in the environment or were kept as livestock and tools that were traditionally employed for subsistence farming purposes. However, some items such as *donkey* and *pick* were more recently introduced into the culture but have since become integral, and were more widely used, in everyday life activities of the participants' cultural setting.

Items such as *tree*, *wheat* and *cow* were repeated in the tasks solely for the fact that they occurred more naturally in the participants' everyday life situations. Their repeated occurrence was not expected to result in confusion on the part of participants since the interview instructions were clearly formulated to orient their actions to classification by grouping three items in each set; or by negating one on the four items that they perceived did not belong with the others.

Procedures

In the demonstration stage, the participant was shown the task materials and what the questions involved and how they were to be answered. The participant was also encouraged to touch the task materials and ask what the different objects represented. All the participants knew the objects represented in the task items, either by experience or through school learning. Primary school readers often included stories about animals while most of the animals, tools and plants occurred naturally in the children's environment and were generally employed in the homes for domestic purposes. The region is also adjacent to the country's major game park, with several other smaller game reserves dotted all over the area.

After the demonstration stage, the following questions were asked: "Which three of these four items belong together?" or "Which one of these four items does not belong with the others?" Again,

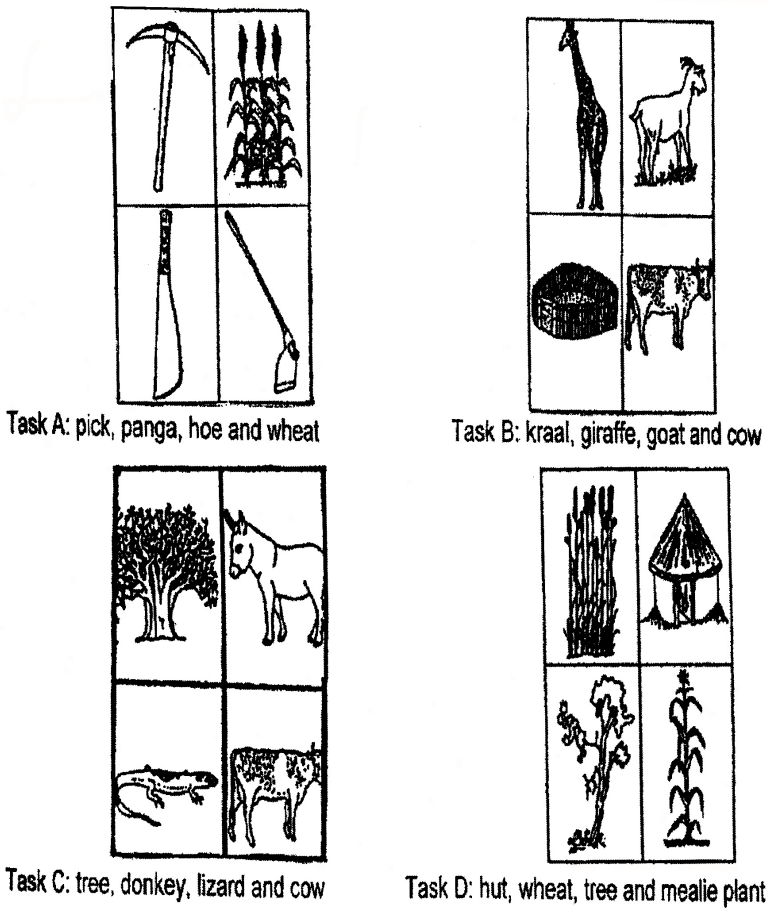

Figure 1. Objects represented by the task items for the interviews

after the participant had classified the objects by pointing or naming one item that did not belong with the others; or by pointing or naming the three items that belonged together, the experimenter would ask a follow-up question requiring the participant to provide the reason for his/her chosen mode of classification. Questions asked were: "Why do you think the item (naming it) does not belong with the others?" or "Why do you think the three items (naming them) belong together?" The follow-up question was crucial for revealing the essential nature of the participants' reasoning processes applied to the task situations.

Recording of data

The interview was tape-recorded while the responses were coded in a notebook. These constituted the data from which the analysis was conducted. The tape recorded data and the coding of the responses on notebook were kept with the researcher. Although a recording of participants may potentially intimidate them, this was however not obvious during the interviews and the recordings were necessary for the subsequent analysis of the data. The participants' responses to the questions re-

quiring them to classify the task items were coded as either 'graphic-functional' or 'abstract-categorical'. The analysis confirmed this coding but also revealed a further, 'abstract-functional' classification mode.

Method of analysis of the results

Following Luria's (1976) original study, the analysis focused on whether participants' responses revealed a functional-graphic or an abstract-categorical classification mode. Functional-graphic classification involved classification of objects according to their appearance and functional relations that objects have in real life situations. On the contrary, abstract-categorical classification involved classification of objects according to linguistic categories that subsume objects under linguistic-conceptual relations such as "animals", "tools" and "plants'.

For example, an abstract-categorical classification of items involving *giraffe*, *goat*, *cow* and *kraal*; the *giraffe*, *goat* and *cow* will be grouped together and a *kraal* excluded because the former items are *animals*. "Animals" is an abstract-categorical concept within which these items are subsumed. This is in contrast to a functional-graphic classification which comprises class relations established on the basis of concrete, empirical and real-life relations objects are perceived to have in the participants' everyday, empirical settings . A class relation established on this basis would involve classifying *goat* and *cow* and *kraal* together because the *goat* and *cow* could be kept inside the *kraal* while the *giraffe* is a wild animal and therefore not suitable for accommodation in the *kraal*.

RESULTS

A one-way ANOVA procedure was conducted to determine if the change in performance across the four grades was significant. The results of the ANOVA procedure (see Table 1) indicate that there is a significant difference ($F\,(3, 76) = 22.52, p < .0001$). A post hoc Bonferroni test indicated that the significant difference is located between Grade 1 and Grade 3 and between Grade 3 and Grade 7.

Table 1. Results of the ANOVA procedure on classification and generalisation tasks

Source	df	ANOVA SS	Mean square	*F*	Pr > *F*
Grade	3	175.1	58.4	22.52	<.0001
Model	3	175.1	58.3	22.52	<.0001
Error	76	196.9	2.6		
Corrected total	79	371.95			

Table 2 shows the means and standard deviations in each of the four grades. It is clear from this table that there is little improvement in performance between Grade 3 and Grade 5 and between Grade 5 and Grade 7, respectively, whereas the improvement was significant between Grade 1 and Grade 3 and between Grade 3 and Grade 7. A clear schooling effect can be inferred here.

Table 2. Means and standard deviations on classification and generalisation tasks

Grade	*N*	*M*	*SD*
1	2.4	1.54	20
3	4.85	1.39	20
5	5.15	1.93	20
7	6.5	1.54	20

The developmental trend demonstrated by the participants' performance is shown in Figure 2. This developmental effect is to be expected considering the age range and schooling levels between the 6-year-old Grade 1 learners and the 8-year-old Grade 3 learners on the one hand, and between the 10-year-old Grade 5s and the 12-year-old Grade 7 learners on the other hand. The Grade 1 and Grade 3 results seem to suggest schooling and developmental effect accounting for the significance in the performance differences. This seems however to stabilize with regard to significance of performance differences between Grade 5 and Grade 7.

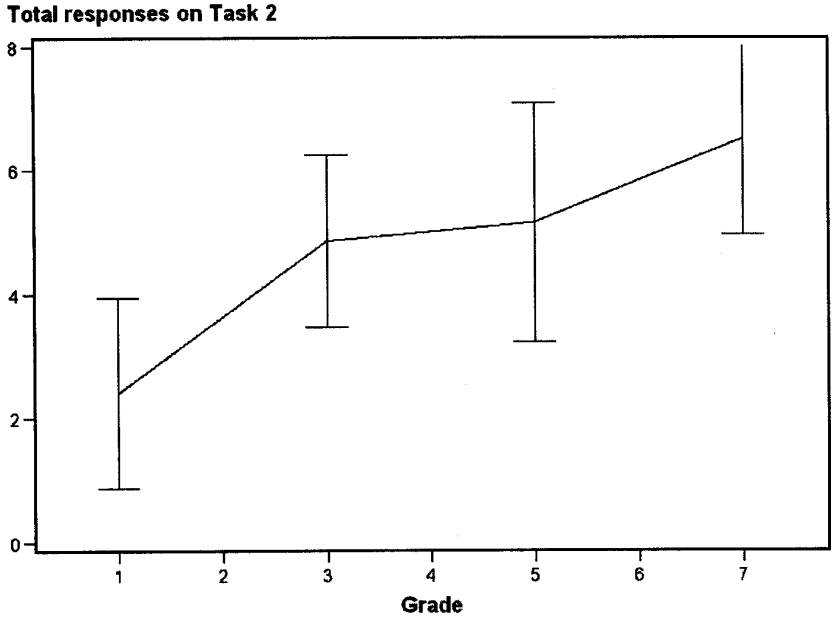

Figure 2. Developmental trend in participants' performance across the four grades

The data in Table 3 demonstrate the classification patterns that dominated in each Grade. That is, 20 participants per grade responded to 4 task questions comprising Task A, B, C, and D. There was a total of 80 responses per grade. The response patterns are categorized in terms of whether they revealed abstract-categorical or graphic-functional classification mode. The patterns represented in this table are constantly referred to in the discussion following.

Table 3. Summary of the subjects' overall response patterns in percentages

Grade	*N*	Abstract-Categorical	Functional-Graphic
1	20	25	97
3	20	45	55
5	20	49	51
7	20	56	44

DISCUSSION OF THE RESULTS

Grade 1

The Grade 1 participants emphasised functional and graphic mode of object classification. Only 2.5%

of their responses to the task questions were abstract and categorical (see Table 3). The classification mode for Grade 1 (97%) emphasised the graphic and functional relations that the objects had in concrete, everyday situations where they were encountered. There was in fact no evidence of conceptual form of thinking at this stage as participants did not seem to commit to a clearly identifiable pattern of classification. Therefore, for purposes of this report, their responses were classified as graphic and functional because they were closer to the concrete and functional pattern than to the abstract-categorical mode of thinking.

Grades 3, 5 and 7

The pattern that dominated the responses of these participants revealed an interesting phenomenon. Two distinctive modes of object classification were used; abstract-categorical mode and graphic-functional mode. However, subsequent justification of the initial classification actions revealed that three modes of discourse reasoning underlie participants' task performance. These three distinct modes are discussed below:

Task A

For Task A, the majority of the participants' responses (90%) classified *pick*, *panga* and *hoe* together and excluded *wheat* as not belonging with the others. However, when it came to supporting this classification mode with appropriate reasons, only 45% of the responses made use of linguistic terms such as 'tools', to justify their object classification action.

The other 45% made no use of linguistic concepts but emphasized the functional aspect of the objects. They argued, for example, that *pick*, *panga* and *hoe* could complement each other in situations where they are used together in work situations. These participants seemed to employ available TshiVenda language conceptual categories, which tend to be more differentiated. For example, in TshiVenda, the concept, "tools", was translated *zwishumiswa*, which literally means "things for use". It seems therefore that the concept, *zwishumiswa*, although abstract, accentuates functional relationship among objects represented by the task items as opposed to a concept that makes no explicit reference to relationships of functionality such as "tools".

The remainder of the participants' classifications (10%) were graphic and functional. That is, the participants placed *wheat*, *panga* and *hoe*, together and excluded *pick* because the three items could be used together in the ploughing fields. Unlike *hoe* and *panga*, which have always existed in Venda society, *pick* is a relatively new tool and is not extensively used in the fields where ploughing is still widespread and is a dominant form of subsistence activity. However, pick is generally employed during activities associated with building construction of modern housing structures.

Task B

A similar pattern can also be seen in the case of Task B. In this task, 80% of participants' classification responses were categorical. That is, they classified *giraffe*, *goat* and *cow* together and excluded *kraal* as not belonging with the others. However, 61% of the reasons provided were explicitly based on the fact that the items represented "animals".

The other 19% of the reasons were abstract-functional. That is, although these participants were aware of, and had used a linguistic concept to subsume objects under abstract conceptual relations, they also tended to extend their reasons to include the empirical and functional relations that the objects have in the everyday situations in which they are encountered. . For example, the concept "animals" was translated *zwipuka* or *phukha* in TshiVenda. However, this concept — although abstract and defining animals in general, is usually differentiated in everyday language, with *zwipuka* or *phukha* often used to denote wild animals and *zwifuwo* used to denote domestic animals. As a result, the presence of *giraffe* in the tasks items might have perturbed participants and led to the need for elaborating on objects' functional-empirical qualities such as the fact that they are all alive and

that they all eat grass and leaves.

Participants who classified the items in a graphic-functional manner (20%) went on to offer equally graphic-functional reasons for their classification. For example, they would say that *goat*, *cow* and *kraal* belong together because *goat* and *cow* are kept in the *kraal* at night while *giraffe* is a wild animal that is found in the bush and cannot be kept with domestic animals. Many children in this cultural setting would be familiar with these empirical relational systems from first-hand experience as goats and cattle are still common in the homes and young boys participate, after school, in heading them. Although the urbanization process in this region is gradually forcing subsistence activities out; this is, however, still a long way to come.

Task C

For Task C, 80% of the participants' classification responses were categorical, but only 58% of the reasons for these classifications were based on abstract-linguistic concepts. They argued that *donkey*, *lizard* and *cow* belong together because they are "animals".

The 19% of the reasons for this classification were abstract and functional, emphasizing their empirical knowledge of the animals found in the homes. However, the 20% graphic-functional classifications were similarly justified by reasons that appealed to the graphic and functional relations the objects have in the empirical contexts in which they are encountered. For example, participants usually excluded *lizard* from their classification and argued that the *lizard* was not an animal, or that the *lizard* did not eat plant leaves and would therefore not need to feed on tree leaves; as would *donkey* and *cow*.

These participants generally disagreed with the experimenter's identification of *lizard* as "animal" and preferred to identify it as a creature or organism — *tshikhokhonono*. In TshiVenda, *donkey* and *cow* are generally identified as *zwifuwo* (domestic animals). *Lizard* would not normally be identified as a "domestic animal" — *tshifuwo* or as a "wild animal"— *tshipuka*, because it is neither kept in home as domestic pet or as livestock; nor does it live in the "wild" as the other wild animals such as giraffes do. Lizards are commonly found in the homes as annoying but not harmful creatures—still found in abundance in grass-thatched huts. The concept "animal" in Tshivenda seems, therefore, to be uniquely differentiated, apparently forcing the participants to find it difficult to accept subsuming of lizard into the conceptual category of "animal".

Task D

For this task, 83% of the participants' classification responses were categorical. That is, participants identified *wheat*, *tree* and *mealie* as belonging together and excluded *hut* as not belonging with the others. However, only 33% of the reasons given to support the classification used the linguistic term "plants" as conceptual basis for the classification. There were therefore more responses, in this task item, using categorical classification but not accompanying it with abstract-linguistic concept; "plants", to justify the classification.

The majority of the reasons provided to justify the categorical classification above (47%) were abstract-functional, emphasizing the empirical relations objects have in real life situations in which they are encountered. The participants argued, for example, that *wheat*, *mealie* and *tree* provide food while *hut* does not. Some argued that *hut* can be used for storing *wheat* and *mealies* at harvest but that it is not built in the fields where *wheat*, *mealies* and *tree* grow because the roots of the *tree* growing next to it would cause it to crack and collapse.

Even in situations where a linguistic concept such as *zwimela* (the equivalent of 'plants') was used to justify the classification, this was further extended to relate to the perceived functional relations the object had in concrete, empirical situations. In Tshivenda, *tree* is generally called *muri*, while *wheat* and *mealies* are collectively referred to as *zwimela*. However, although the concept *zwimela* can be used as an equivalent to the concept "plants", it is generally used in reference to crops

planted in the fields and not usually understood to include trees. This differentiated conception seems to embody the sense in which participants have used these concepts.

The remaining 17% of the justifications employed the graphic-functional reasons, emphasizing the functional relations objects represented by the task items were perceived to have. For example, they classified *hut*, *mealie* and *wheat* together and argued that the *mealie* and *wheat* would be stored in the *hut* when harvested.

CONCLUSION

The current study demonstrates the functioning of heterogeneous thought processes employed by rural South African primary school learners during problem solving activities. The results suggest that different ways of thinking and concept development are rooted in, and shaped by, the forms of sociocultural activities in which these children participate. The forms of discourse modes they employed to engage in problem solving activities represented by the experimental task items could be traced back genetically to the forms of verbal thinking processes they participate in during classroom teaching and learning, as well as in their everyday linguistic discourse activities.

Participation in subsistence activities, formal schooling, as well as the dominance of TshiVenda language discourse modes, constituted complex sociocultural setting in which, and through which, participants' learning and development took place. These contextual factors are a reality of children's learning and development in rural South Africa which formal schooling would need to take into careful account in its organization of formal knowledge and procedures for its mediation through curriculum processes. For example, procedural activities for relating to learners during classroom teaching could emphasize meaningful participation in linguistic activities that form part of the structure of formal knowledge systems by engaging learners in their concrete, linguistic experiences while simultaneously transcending these experiences to provide opportunities for the acquisition of abstract, conceptual tools; necessary for successful performance on formal school tasks. .

NOTES

1. The collectivisation of the peasant economy to fit into the industrial mode of living that demanded large supplies of agricultural produce for city consumption required that peasants have appropriate knowledge and skills for running productive agricultural industries for the fast-growing Soviet industrial centres (Luria, 1976; 1979). This, however, is a different scenario to the peripheral role played by black South African peasants labouring on apartheid-style white-owned commercial farms located on the outskirts of the areas historically demarcated for sole settlement by African populations such as in Venda. Migrant labour peasantry in these reserves had little meaningful participation in the country's racially defined productive activities (see Houghton, 1967).
2. Historical universalism involves the supposition that new processes that have emerged as a result of historical development of societies supplant and supersede older processes as well the supposition wherein history is conceived as having a linear and all-encompassing consequence. That is, history is assumed to be pre-deterministically goal oriented towards the attainment of western industrial and technological culture and constituting the apex of human cultural development (see Cole, 1988; 1996)
3. TshiVenda, one of the official languages spoken by just over a million people in South Africa, is more prevalent in the northernmost part of South Africa bordering Zimbabwe and is spoken by close to half a million primary school learners below the age of 12, according to a 2005 snap survey statistics of the local, *Vhembe* district administration.
4. The name of one of the surrounding suburbs literally means "lack of ploughing land". It was named as a consequence of the introduction of modern urban settlement patterns and is aptly suggestive of the then growing discontent with loss of subsistence land.

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