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THE SOCIAL CHARACTER OF WRITTEN SPEECH[1]

This paper explores the social character of written speech which is seen as an integral element of the interaction system between the individual and his/her social environment. The development of written speech is argued to be dependent on the kinds of social processes that it mediates – especially on the functional role that it plays in the co-ordination of human interaction. The interactional context is argued to be a context for any symbolic form of human activity which are internalized and used by the subject in the appropriation of his/her behavior. The development of every higher mental function (including written speech) is dependent on the structure of the social activity that it mediates. At the early school age the appropriation of written speech helps to change complex thinking into hierarchical and structured scientific concepts. Consequently, the child changes his/her inner psychological processes as well as the way of communicating with others. On the other hand, in the acts of written speech one can look for some relics of the social context that created an ontogenetically new tool.

Introduction

The present article addresses essentially two issues. First, it examines the issue of the social origin of individual written speech development. Secondly, it explores the problem of the social dimension of the act of individual written speech use (the consequences of its social origin). In analyzing the two areas, I shall use Vygotsky's claim regarding the social origin of higher forms of human behavior as a starting point (Vygotsky, 1971, pp. 131-133; 1978, p. 88; 1984/2002, p. 333)[1]. I shall also refer to Elkonin's research (1940/1998) as well as to contemporary contributions elaborating on that theme (e.g. Cole, 1998; Wells, 1999).

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I am particularly interested in the microgenesis of the emergence of the written speech (Jabłoński, 2002). Therefore, I focus my attention primarily on the concept of human interaction in an attempt to establish regularities in the subjective-objective (*sic!*) process of transmitting the tools of culture. I approach written speech as a social tool for mediating an individual's mental process: a tool which directs thinking in a qualitatively new way. On the other hand, it is not in the appropriation of external procedures linked with the use of *writing* that I want to look for answers to the puzzling question of the origin of new intellectual structures. Instead, I would like to focus my search on the social meaning of using that tool, one which is indispensable for a qualitative change in mental operations.

Secondly, I will outline the nature of changes in the child's consciousness and changes in relations with the environment as consequences of appropriating written speech. I will also discuss the issue of the different thought structure that is formed by written speech.

The social origin of written speech

The claim of the social origin of higher forms of behavior

The claim propounding the social origin of the so-called higher forms of behavior can be traced back to philosophical foundations of the cultural-historical theory, especially to Marxism (Wertsch, 1985, p. 58; also Stachowski, 2002, p. 28). Any individual and ontogenetically new form of operation is social in its origin, i.e. it first exists as a relation between humans and then undergoes secondary internalization as the child's individual property.

Thus, we adopt the view that there exists a link between speech development, on the one hand, and cognitive and social development, on the other. This is neither the only existing approach nor the only generally valid one. A number of studies and analyses assume a disjunction of the processes of language acquisition and the development of thinking and communication abilities, and look for detailed answers within that theoretical division (Curtiss, 1989).

Interaction as a context for sharing and internalizing meanings

The first issue to resolve is the question of the position of higher forms of behavior (which, by definition, assume the mediation of sense-charged signs in directing a mental process) within the totality of human relations. Do symbolic structures define the context for human interaction or is the reverse the case, i.e. do non-symbolic social relations constitute the context and the proper frame of reference for the meaning that the sign acquires and for its use? Within cultural-historical psychology, which is founded on the assumption of dialectic materialism, the origin of human consciousness is explained in accordance with the theory of species evolution. In his/her origin, the human is a species of peculiar propensities, hence the highest forms of behavior, i.e. the forms which are subject to the symbolic dimension are biologically determined in their potential.

Some animals are also capable of simple uses of the sign. Vygotsky (1984/2000, pp. 340-345) remarks that even at early stages of species development the very organization of the nervous system contains certain premises for the emergence of consciousness and self-consciousness. In this case, individual consciousness is not defined in its final form, but merely with respect to possible directions of development which are determined by the staged nature of concept development (Dziurla, 2002). Consciousness is in essence always cultural, just as the propensity to develop symbolic forms of communication, even if there are no other individuals that are competent or that use language at all, is recognized to be an innate disposition (Vygotsky, 1984/2000, p. 370). However, not every interaction leads to progress in conceptual development. There are healthy children who are intellectually impaired despite the presence of a favorable environment, the use of standard teaching methods and relevant tools.

Some studies on the origin of language in children (e.g. Bullowa, 1975; Kaye, 1977; Schaffer, 1995) suggest that interactional structures are primary with respect to language competence acquisition. Speech is incorporated in interaction with an adult as an element of the social context in which the child is raised: a context that is organized by non-verbal schemata (see also synchronization research: Schaffer, 1995; Hall, 1987). Elsewhere, there is mention of behavior formats (Musatti, 1995), i.e. repeatable interaction schemata, within which the content of the mutual sense-based activity is located. Mastering such schemata (role division, temporal behavior schemata, order of activities, type of movements, eye contact, body posture, etc.) is the foundation of language development. A difficulty on the part of one of the partners (e.g. difficulty in adjusting to synchronizing with the partner) may consequently result in mental impairment of social origin (Schaffer, 1995).[2]

As the direct, sensory relationship with an adult loosens, the importance of speech in co-ordinating interaction with the child increases (Bullowa, 1975; Durkin, 1996). Can speech be recognized as an "extension" of the physical presence of another human, an additional organ of mutual human influence (see also the genesis of the indicatory gesture; Vygotsky, 1971, p. 121)? Speech first appears in the child's activity as an element of a broader interaction context and initially serves as one of the indicators which permit orientation in the field structure (Vygotsky, 1984/2002, p. 125), when the word first becomes a clue that allows generalized orientation in the perceptive field structure. In this context, speech development paradoxically progresses towards gradual

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[2] It is worth observing that individuals raised in different cultures may also experience problems in mutual adjustment which results from their participation in different communication rituals (Hall, 1987). This would indicate an innate disposition with respect to the synchronization potential, but also the social-cultural nature of its specific forms, patterns and manifestations. Clearly, the claim is a debatable one if one considers the richness of theoretical work on the subject derived from various assumptions. Nevertheless, it opens up an area for contemporary exploration, and for an extended discussion on the forms of non-verbal expression and the associated affective-emotional sphere: the relations with the intellect, the origin, the developmental process, nature, etc. (e.g. Ekman & Davidson, 1999), as well as for a review of research in the cultural practices that create the context of the child's development (as interpreted within the framework of cultural psychology) (Shweder, Jensen, & Goldstein, 1995).
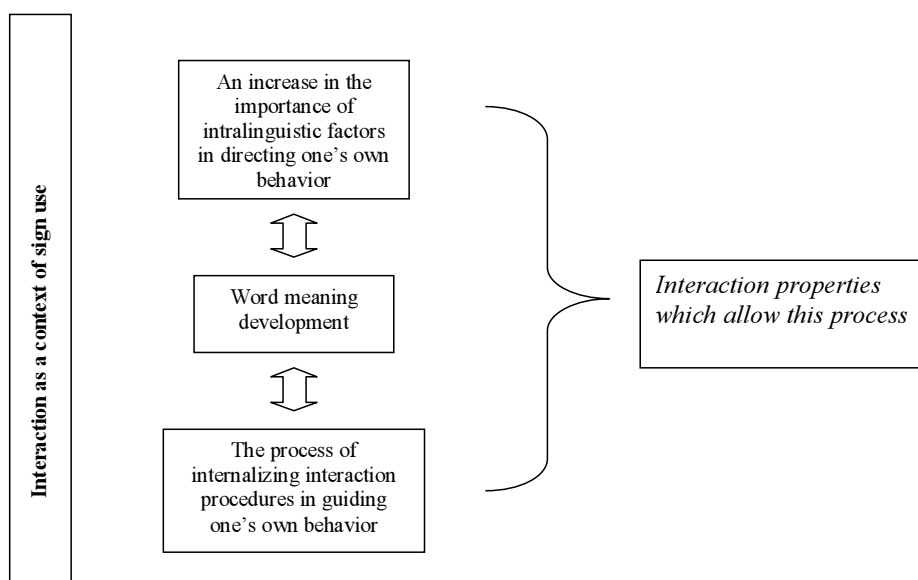
Figure 1. The properties of interactions permitting the child's cultural development in the theoretical model adopted in the study

decontextualization (Wertsch, 1985, p. 84). This means that word meanings can be handled in abstraction from or even in contrast to the reality that is observed directly, whereby intralinguistic premises guide action at the expense of direct premises (Vygotsky, 1984/200, p. 324). Following B. Lee, John Shotter (1984, p. 32) claims that this corresponds to the decreasing importance of referring to what "is" with an accompanying growth in importance of references to what "could be", i.e. to hermeneutically constructed imagined or theoretical world. As a result, what is said requires less and less grounding in the non-linguistic context, as it can be supported almost entirely within the new, linguistically constructed, context (see Figure1).

A special aspect of our approach in that we assume that an "internally constructed context" has external origins, i.e. it is first functionally useful in a social relation, and only then becomes an internalized property of the chure d (see Figure 2).

Human interaction and the dialectics of meaning development

The theory of species evolution within the cultural-historical theory does not apply only to explaining the origins of consciousness. It also extends to the cultural development theory, including that of the child's cultural development (Vygotsky, 1984/2002, p. 360). As mentioned above, in looking for those properties of social interaction that enable the child to "grow into culture" successfully, we shall draw on assumptions derived from dialectic materialism, which provides the philosophical context of cultural-historical psychology. Consequently, the sections below will be devoted to searching

The tool (e.g. written speech) and its properties

The social function of the tool/ external context

The object of activity and its properties
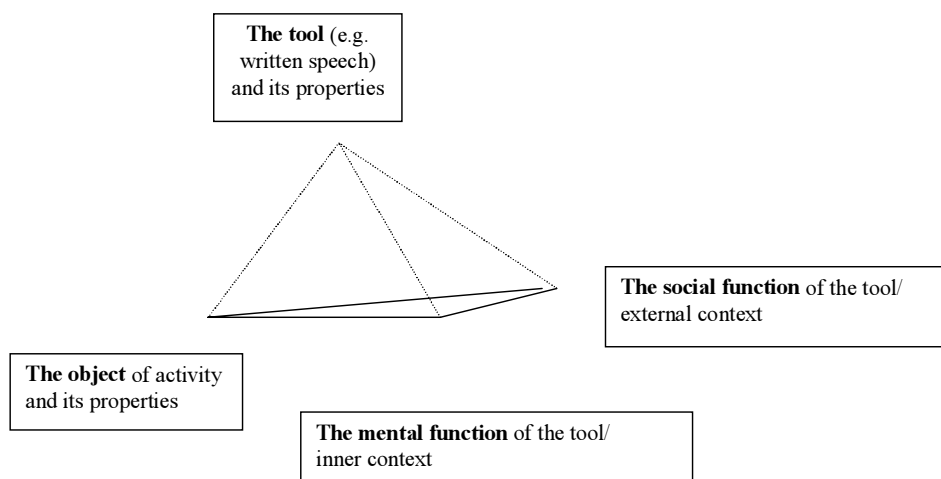
The mental function of the tool/ inner context

Figure 2. The context of changes provoked by acquisition of a new tool (of written speech in the present case). Source: the author's own contribution

for an answer to the question of what in an interaction is significant in constructing new meaning structures. The issues that will be investigated are, in the order in which they are examined: the development of the meaning structures themselves (i.e. of what gets developed), the concepts of the zone of proximal development and the so-called social-cognitive conflict as concepts introducing the dialectic dimension into the psychological theory of human relationships and, finally, the issue of the driving forces of development (i.e. what can be the source of development).

The unit of analysis: word meaning

Following Vygotsky (1971, p. 319), word meaning will be treated as the unit of analysis, i.e. an indivisible whole which expresses the property of human thinking in general. According to Vygotsky, the system of meanings is to determine peculiarly human mental functioning, which in its form results from a synthesis of biological (innate) structures and cultural structures that are manifested in the organization of social relations in the child's environment. As a result of the dialectic synthesis of the two systems, human consciousness emerges, which is simultaneously an organ of human will, involving an intellect that is subject to the control of speech. Through consciousness, humans become capable of controlling their thinking and behavior and, by the same token, the environment in which they live.

A more detailed characterization of word meaning is presented in Dziurla (2002). In the present article, we shall focus on just a number of word meaning properties that

are essential for developing the main line of reasoning. Firstly, we are interested in the staged nature of meaning development. Every stage is characterized by its own peculiar structuring of the mental process. Secondly, moving from one stage to another requires, as a premise, the presence of another human and the internalization of the structures of joint activity. Thirdly, it is important that every stage of meaning development is distinguished by special interfunctional relationships between individual consciousness functions (such as perception, memory, attention, etc.). Fourthly, it should be emphasized that every stage in meaning development is distinguished by a specified structure of relations with the external world and a possible way of communicating with the environment.

The dialectic nature of mental structure development

As stated by Elkonin (1971, p. 15), the transition from one period to another is marked by a discrepancy between the child's operational and technical capabilities and the tasks and motives making up the texture of which these capabilities are constructed. This goes back to Vygotsky's view on the dialectic origin of all new forms of human functioning. In goal-directed action, no new form can emerge until an opposition counters it, which is overcome by humans in the process of synthesizing new forms. In this way, the concept of conflict, i.e. opposition or collision is introduced into the child's history. It is a collision of biology and history, primitivism and culture, organics and society (Vygotsky, 1984/2002, p. 360).

If indeed, as claimed by Elkonin, the discrepancy results from a disparity between the child's motives and capabilities, then the question arises whether it is not so that interaction resulting in cultural development must account for those motives which diverge from the child's capabilities. Hence, is it not so that in a certain stage of development, one should not merely diagnose the area of the child's maladjustment but, as far as justified, generate that area by creating new motives for action? According to Vygotsky's theory, in my interpretation, the new motive may be derived from the organism's new need, from a change in consciousness that has already occurred or, lastly, from new circumstances of the external environment (new stimuli which revalue the hitherto existing motive system).

Following Hegel, Vygotsky (1984/2002, p. 191)[3] states that the human being is not interested in a given thing merely due to existing motives but that s/he may be excited by the object itself and create new motives for his/her conduct through that object. The old form (the old structure of consciousness expressed through the meaning structure) is an obstacle in pursuing the goal which may be a response to the active motive.

Thus, here comes a moment when the new structures of social operation can be introduced into the subject's experience in such a way that their meaning is develop-

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[3] The emergence of new motives which strip mental functions of their existing use value for the subject contributes to developmental crises, which are in turn harbingers of new mental forms. Thus, before new syntheses arise, the hitherto existing way of individual operation disintegrates. The processes are described in detail in characterizations of the respective developmental crises and their dynamics (cf. Vygotsky, 1984/1984/2002; Brzezińska, 2000, pp. 87-97).

mental in nature. Vygotsky's (1971) concept of the zone of proximal development is the difference between the level of independent task completion and the level of a task performed jointly with another, more competent, person. We thus assume the necessarily asymmetrical nature of the educational relation (Brzezińska, 2000, p. 95), whereby the so-called regression can also be generated by placing an individual in an overly difficult action structure. The art of educational interaction would be to retain appropriate involvement in joint action while providing suitable reinforcement when the new motives have already emerged, but – on the other hand – also inducing an appropriate level of what Schaffer (1994, p. 117) terms gradable social-cognitive conflict.

A similar view is expressed in Snow's (1989, pp. 86-87) research on interaction. Optimal discrepancy is one that is small enough for the child to understand the meaning of an utterance, at least to a certain extent, but large enough for the new structures and those not yet entirely appropriated by the child to be shaped. The problem when assessing the degree of regulation is that a large body of knowledge about the child's system must be developed in order to ascertain where the discrepancy occurs.

In this way, the dialectic nature of the development of new forms has been defined. The antithesis of the world *vis-ŕ-vis* the child results from a change in the system of motives and the subsequent changes in the structure of the environment as subjectively perceived by the child. The resistance of matter due to incompatibility with aspirations which, at this stage, are not matched by appropriate realization forms. Is a state of affairs which must be deconstructive of the old forms (Brzezińska, 2000, p. 87), so that new forms can emerge. Brzezińska (2000, p. 84) defines that situation of conflict of the "old" and the "new" as the regression phase (one of the links in the cyclic-phased model of developmental change). Diagnozing the zone of proximal development by making the tasks gradually more difficult or simply by providing the means that enable the child to overcome existing difficulties takes the form of "taking control over difficulties" (Smykowski, 2000, p. 16) as an essential tool in education, which – as claimed by Vygotsky (1971) – only then outpaces development.

Written speech as an element of interaction

The general regularities of development outlined above are realized in specified ways at various stages of development. Written speech enters the child's life at about 6 years of age. It requires an appropriate level of mental maturity and – in response – it makes an indelible impression on the child's mental life. The process of internalizing written speech allows another breakthrough in the development of word meaning, as it permits the development of scientific concepts (Wells, 1999, p. 276; Elkonin, 1998). This is due to certain properties of written speech which will be addressed below.

Development of scientific concepts

The term "scientific" is used by Vygotsky (1989) to describe not only concepts pertaining to the natural sciences. By "scientific" Vygotsky means systematic, encountered in the educational context and thus influencing thought development. He proposes four main stages in conceptual development: syncretic, complex, pre-concepts, and proper concepts

The syncretic stage characterizes thinking in early childhood and is closely connected with the domination of perception in psychological functioning. The elements of the perceptual field are linked at random according to subjective impressions (such as association in time or space).

The complex stage, connected with the domination of memory (preschool period), could be described as the stage of first objective links between objects. Yet, any associations found are unstable, un-logical, unsystematic, without any relation between general and detailed judgments. Objects are classified by common names but their definitions are contradictory and any links are concrete and physical, (i.e. groups of characters such as color, size, part of a complex or collection but changing and unstable).

Next, during the early school period, pre-concepts develop in relation to the domination of the thinking function stressed as the 'leading function' of this stage. Scientific concepts acquired in school education are defined as genetically different to 'spontaneous' concepts formed in the child's own experience. Scientific concepts influence the thinking of this period. They are abstract, hierarchical, and systemic. Any content is categorized according to main, general and important characters. On the other hand, spontaneous concepts enrich scientific structures with the experience of the subject. Difference between 'spontaneous' and 'scientific' is similar to the difference between the spontaneous and conscious use of speech (as an example Vygotsky describes the voluntary use of conjunctions in writing and the increase of correct answers during the early school period). Scientific concepts are conscious due to their systemic nature (see: Vygotsky, 1989, p. 215)

The last stage of conceptual development is the stage of proper concepts appearing in adolescence. Generalization of the subject's own psychological process of generalization is now possible. This is the stage of theoretical and speculative theories about reality. Though complex and interesting the essence of the final stage and its organization will not be described in detail below, as we shall focus on the transition from the second to the third stage.

Social context of scientific concept development

Most probably Vygotsky thought that scientific concepts develop as a pure consequence of written speech acquisition. Present examination of the issue (Cole, 1998) seems to question this statement (Wertsch, 1985, p. 37). Results of experiments lead to the conclusion that, apart from the role of writing itself, its functions in the social context (schooling, for example) are important.

Writing provokes changes in the mental structure as long as it mediates a social relation characterized by a specified structure (Wertsch, 1985; Cole, 1998). The development of scientific concepts may be the consequence of the ability to write as long as it constitutes a functional element of the social context whose participants use *conceptual thinking* (see Figure 2). Research on literacy among Vai (Cole, 1998, pp. 227-241) has demonstrated that mastering writing does not guarantee the development of scientific concepts or any specified ordering of the mental process.

Similarly, in our environment children encounter many contexts for their literacy and achieve different mental results. In examining this problem we shall stress

Vygotsky's parallel between philo- and ontogenesis. The child's developing psychological structures are said to correspond with analogous structures in an adult living in some primary culture. As claimed by Wells (1999, pp. 276-277)[4], the so-called scientific genre, based on the structure of scientific concepts, has developed relatively recently in our culture. Scientific genre is described as one in which nominalization is specially extended. This is to play a dual role. Firstly, a complex process gets "packaged" in one new concept and is hence easier to expose. Secondly, this is to facilitate the determination of relations between the processes being exposed thanks to the possibility of restoring the contents that have disappeared from the current discourse. Scientific concepts in child development, as mentioned above, also organize content hierarchically and systematically and helps the subject to range complex thoughts in logic and economic way.

Wells views grammatical structures as functionally related with the social necessity of interpreting and presenting experience to others. Converting experience into nominal structures effects this. The process is termed a "grammatical metaphor" in reconstructing experience. The intonational-emotional dimension is translated into the world of a purpose-built relation between the writer, the reader and the topic brought together in one of the genres. On the one hand, this represents an attempt to relate the compositional structure of a text (rather than a single sentence) to experience, i.e. to the whole world of direct feelings, reactions, and mutual influence. On the other hand, Wells characterizes the genre of the scientific text as a specific, abstract construct, and a specific tool used for constructing meaning for others.

The acquisition of written speech in the early school period

What is the nature of contrasting the old meaning structure in the early school period with the new meaning structure? What role does writing play? The sections below include a description of developing consciousness during the period of written speech acquisition. Furthermore, we speculate as to the causes responsible for bringing about the breakthrough. Finally, the external context that supports consciousness development is discussed.

The development of thinking at the turn of the kindergarten and school periods

Let us now examine a number of basic processes pertaining to mental function development which occur in the late kindergarten period and in the early school period. With respect to word meaning development, this period is marked by a gradual transition from complex thinking towards the first forms of conceptual thinking. As mentioned and characterized above, logic and hierarchical thinking gradually takes the place of the complex and chaotic spontaneous concept.

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[4] Wells elaborates on Vygotsky's concept of written speech, but also uses Halliday's functional text theory in parallel. Unlike Vygotsky, who views the social context as a concept serving to explain individual development, Halliday is concerned with the social perspective; he studies relations between social relations and language structure, whereby the text, viewed as part of the discourse in the process of social construction of meanings, is adopted as the basic unit of analysis.

This is closely linked with the change in the overall system of mental functioning. The memory function, which has been developing the most dynamically thus far and which has determined the nature of intellectual processes (perception, thinking, attention, etc.) in the kindergarten period, is now replaced by the leading role of the thinking function. As an artificial memorization form, writing permits an analysis of relationships between various elements of the child's thought. From that moment, recalling, perception and other functions will be controlled by thinking, and not *vice versa*. In compliance with the principle formulated by Vygotsky (1971, pp. 211, 292), every successive stage in mental development is based on generalizing the hitherto existing structure. Accordingly, generalizing perception processes in early childhood has resulted in the predominance of memory in the kindergarten period. Generalizing memorization processes has brought about the predominance of thinking. Another breakthrough occurs in the adolescence period, when reflection will be directed to the individual's own thinking process, thus permitting not only a conceptual analysis of reality but also an analysis of the concepts themselves, leading to the creation of the individual's own theories. In the school period, all mental functions, apart from the intellect itself, are intellectualized.

The present analysis starts from the claim that the hierarchic ordering of content becomes possible with literacy in connection with the intellectual dimension (Vygotsky, Elkonin, Wells). If this is indeed the case, then writing acts like a "pivot", just as a toy does at the kindergarten age, i.e. as an element of the external world that allows the new intellectual structures that emerge externally in co-operation with others to be internalized. Consequently, the social function that they perform is appropriated by the child. Owing to its properties, writing, "a more perfect memory", serves as a good foothold in making another step in the development of mental structures, given that it is introduced both into a suitable social context and a specified mental context of the child.

The social context in early school period

When the intellectual moment is introduced into the sphere of experience, school learning becomes possible. The child gains the ability to direct voluntarily what s/he will do. The role of writing as a "foothold" along the way to developing a new mental structure continues at this point. According to Vygotsky, the totality of school learning is based on scientific concepts, which are in turn developed through learning written speech.

At the same time, the child's new consciousness can create conflict with another point of view but only after the so-called age seven crisis. Scientific concepts, which can be used only with rational argumentation and coherence in order to demonstrate one's point of view, "train" the child's consciousness "from the outside" in children's arguments, in justifying one's position as well as in arguing and adhering to jointly established rules (e.g. in team games). What develops here is a new method of communication in which the interlocutors consider others' points of view. The collective monolog of kindergarten play is replaced with genuine dialogue, in which thoughts are shared. Consequently, this form of social communication is internalized as em-

bryonic forms of dialectic thinking, whereby conflict, argument and incoherence provide favorable conditions for acquiring a new tool.

At this stage, the zone of proximal development would thus have to encompass such forms of social activity in which the task being solved necessitates ordering of content in a hierarchical fashion and retaining coherence in arguing with others. One could venture an interpretation under which the dialectics of development at this stage is manifested in a specific social-cognitive conflict, the content of which is constituted by providing a coherent proof of being right, and disclosing the order of the directly observable world in concepts which, at this stage, need concrete, sensory reality to come into being.

The social dimension of the child's written speech: an internalized dialogue and its properties

As shown above, written speech is one of the elements of interaction, and interaction involves circumstances which provoke the development of new competence, and these circumstances are constituted specifically by the necessity to overcome difficulties in pursuit of motives. The new structure of social co-operation is internalized in the form in which it engaged the child. Below, I shall address the issue of the ontogenetic consequences of the process: the development of voluntary message construction, i.e. construction which requires no direct reaction on the part of the responding recipient, but instead the internal handling of the entire situation in which the message is incorporated. Directing thought to the process of speaking itself, previously spontaneous and unconscious, must lead to consciousness of the process of speaking and to enabling voluntary, purposeful action with respect to that process.

The development of written speech and the development of volition in creating an utterance

The sound analysis of the word: dividing the total thought into parts

Drawing on Elkonin's work (1998) on written speech, I would like to explain the nature of volition development, which occurs through a gradual development of written speech. Learning written speech starts by decomposing the word into single sounds. This is to make or break the whole further process of learning. Also, this is to mark the beginning of the slow process of making one's own speech voluntary. It represents the beginning of the process of learning the structure of speech, which is made conscious for the first time, and starts with being subjected to the processes of generalization, i.e. of focusing verbal consciousness on the very phenomenon of speaking. The subsequent steps will follow: written formulation of thought, the possibility of dissecting thought into parts, and forming it in compliance with the rules of connecting thoughts into a whole, using the tool of written speech. The sound analysis of the word itself marks the beginning of becoming conscious of the fact that the sounds means something, since this requires using an operation of some type (Elkonin, 1998; also Jabłoński, 2000).

Question of syntax and written speech structure

Now comes the difficult question of the reciprocal influences of thought and syntax. According to Elkonin's research (1998) the thought structure may not always be recognized as the structure of a written sentence even if they co-occur in a single act of the child. In oral speech, intonation and any other non-verbal forms of communication play the role of structuring the message (Elkonin, 1998, pp. 6, 31). The actual situation, response from the environment, gestures, and the whole sphere of mutual influence enables the individual to orient to the situation and adjust to it and to respond. This seems to be the logic of the oral message, which is dialogical by nature, i.e. it presumes the mutuality of response. Distinguishing significant elements from the perceived structure is largely based on generalization, which determines what is to be taken into account as significant; yet the direct, sensory aspect continues to play an indispensable regulatory role. It still constitutes speech for others, one which is dependent on the actual situation and which is impossible in terms of both content and form without some recipient who reacts in some way.

Nevertheless, the child's utterances become more and more elaborate over time. They are also increasingly adequate in terms of the canons that are currently in force, more structured, and more closely subjected to the rules of constructing the written utterance (syntactic rule, text composition rules, etc.). This also concerns oral speech utterances (transformed by written speech). At this juncture, Elkonin (1998, p. 34) starts considering grammar from the point of view of its logical functions. In an experiment on the use of conjunctions by children, he observed the inadequacy of conjunction usage in child discourse ("then", "and"), which consists in repeated, frequent and meaningless use as if to substitute for other words. The explanation is that the words cannot yet assume their grammatical function. On the other hand, they do play an important role in the child's utterance, since they divide the child's thought into "pieces". They perform the mechanical function of separating one chunk of thought from another, even though they as yet fail to connect them logically. In time, the multiplicity of conjunctions gives way to more complex forms. Thus, differences must be noted between oral and written speech in terms of syntactic structure.

How could these differences be explained? In order to provide an explanation, we revert to knowledge of the primary function of the word in early childhood (Vygotsky, 1984/2002), when it serves to mark a place in a situation and orient to the structure of the perceived field, as well as serving as a tool for influencing others. It can be argued that the child starts identifying significant elements of the field through others. Speech emerges as one of the elements of the child's world, one which helps to structure, separate out and generalize other elements from the chaos surrounding the child.

Upon appropriating writing, the child faces a new task. The world of sensory experience is now moved onto the level of a more abstract mode of operation, so to speak, its non-reflective directness is abandoned. The child tears him/herself away from the sensory aspect of speech and moves on to abstracted speech, in which word imaginings rather than words themselves are used. In this respect, written speech is as different from oral speech as abstract thinking differs from visual thinking (Vygotsky, 1985, p. 234).

The abstractness resultant from dissecting thought into elements and recombining them in a new form is built upon the same visual representations that the child has originally used in oral speech with others. In this way, a trace of the primary function of the word is preserved, that of the ongoing regulation of living relations with others. Thus, it is a dialogical function closely connected with the living, emotional context in which the child's development take place. With the ability to write, the child acquires new ways of combining parts of his/her thought, since s/he must present it in compliance with the rules of constructing a written utterance. In this way, grammar also becomes a part of the child's thinking, not merely in writing, but also in oral speech (Wells, p. 272). As Elkonin remarks (1998, p. 36), grammar enters oral speech through reading and especially through writing. Proving its positive effect on education in this way, oral speech is transformed from lesser formed into highly formed and voluntary speech. The process is gradual, hence the child seems to appropriate the signs of written speech first; as a result, the abstract form of written speech only takes shape later (Vygotsky, 1985, p. 245).

Conclusion

Genetically speaking, the development of written speech is derived from the interactional processes of human co-operation. It is one of the significant elements of interaction which would not have developed if there had not existed relevant motives seeking realization through that form. The development itself must be both provoked and enabled (by providing the appropriate means) within the interaction. If the forms that the child proposes are not shared (i.e., if they have no adequate meaning in the social context) and do not have appropriate functions in a social relation, they will not develop. In this way, whatever requires the use of scientific concepts, such as the concept of the decimal system, and depends in its genesis on the development of written speech, is dependent upon the way in which the child participates in relationships with others.

(translated from Polish by Piotr Kwieciński)

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[5] Wygotski = Polish transliteration of Vygotsky's name.

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