

1 Vygotsky – From public to private: learning from personal speech

Faye Stanley

Lev Semenovich Vygotsky (1896–1934) was born in Orso in the Russian Empire (present-day Belarus) into a non-religious Jewish family. Unfortunately, his life was short lived: he was 37 when he died in Moscow of tuberculosis. However, during his short life he was a pioneering psychologist and a highly prolific author. He graduated from Moscow State University in 1917 and he worked at the Institute of Psychology (from the mid-1920s) and other educational, research and clinical institutions in Moscow, Leningrad, and Kharkov where he worked extensively on ideas about cognitive development. Shortly after Vygotsky's death in 1934, the Stalin regime blacklisted his works for many years, but his ideas were preserved by his collaborators, especially A.R. Luria and A.N. Leontiev, and formed the foundation of Soviet 'socio-historical psychology'. His contributions are widely considered to be crucial to our understanding of the social nature of learning and have contributed significantly to western educational practices since the publication of his work in English in 1962.

Introduction

Although Vygotsky died in 1934, his work continues to make a significant impact upon the understanding of psychology throughout the world. In the Soviet Union (now Russia) Luria, Leontiev, Zinchenko and El'konin developed their own theories based on the foundations Vygotsky created (see Chapter 4). Modern psychology has preserved the heritage of Vygotsky's thinking, serving to deepen the principle ideas of the founder of this scientific school of thought in accordance with contemporary ideologies (Daniels 2001).

Vygotsky's written work covers a wide variety of areas but he was concerned most specifically with the development of the human mind. His critical and lasting insight was that there is an inseparable and organic connection, between individuals and their social circumstances, that is the source of thinking.

Vygotsky argued that ‘it is as a result of social interactions between the growing child and other members of the child’s community that the child acquires the tools of thinking and learning’ (Smith et al. 1998: 426). In recent years, there has been an upsurge of interest in the ideas of Vygotsky and in western society in particular. This has mainly been due to his unique approach towards children’s learning (Davydov and Zinchenko 1989). While Vygotsky’s main theories relating to concepts of learning and development were not limited to any specific age, his best known ideas are often discussed in the context of young children (Kozulin et al. 2003) and have particular resonance for early years practitioners (Siraj-Blatchford 2007).

In particular, many scholars (for example, Stone 1998; Wells 1999; Daniels 2001) have sought to unravel Vygotsky’s thinking of the zone of proximal development (ZPD). This is a process where a child’s understanding is assisted by a ‘more knowledgeable’ person (discussed in more detail later on in this chapter). However, Vygotsky’s theory of how children internalize their thoughts and their speech, progressing from public to private speech is far less researched. Berk (1992) claims that only seventeen studies have been carried out in relation to private speech and only seven of these have been published. Indeed, Vygotsky (1978: 25) highlights how ‘the most significant moment in the course of intellectual development, which gives birth to the purely human forms of practical and abstract intelligence, occurs when speech and practical activity, two previously completely independent lines of development converge’ (Vygotsky 1978: 25). This is illustrated in Figure 1.1.

The main discussion in this chapter concerns children aged 2–7 years focusing on the evolution of public to private speech and looking beyond this from a sociocultural perspective to provide some possible connections to practical application. This chapter illustrates the importance of shared communication between adults and children and observing children when they are beginning to internalize their thoughts and carrying out private speech utterances. The chapter is intended to provide insight into how students and

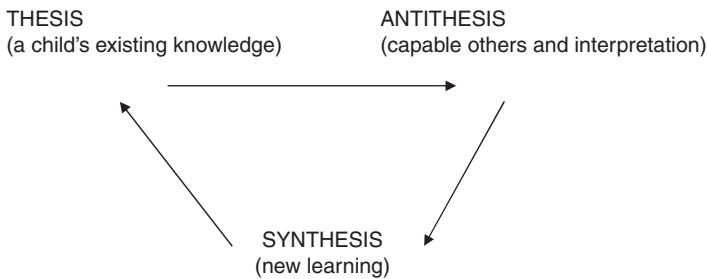


Figure 1.1 How language and thought become internalized. (Adapted from Vygotsky 1978: 54)

early years practitioners can make meaning of children's speech as they guide themselves through activities.

The origins of private speech

Vygotsky regarded private speech as 'a critical intermediate stage in the transition from external social communication to internal self direction and as the cornerstone of all higher cognitive processes, including selective attention, voluntary, memory, planning, concept formation and self reflection' (Berk 1992, quoted in Fernyhough and Lloyd 1999: 34). Thus for Vygotsky, the appearance of private speech at approximately 3 years of age originates in early socialized speech, which gradually separates into two functionally specific types: speech used to communicate with others and speech purely directed at the self. As private speech branches off from social speech, it becomes thought spoken out loud and 'an externalized self monitoring system, that plans, directs and controls behaviour' (Bivens and Berk 1990: 444). Once children are able to successfully bring action under the control of self-directed verbalizations, overt speech goes 'underground' turning into inner speech or verbal thought, which occurs at approximately 7 years of age (Berk and Landau 1993).

However, while Vygotsky conceptualized private speech as 'speech not to be addressed or adapted to a listener and which does not compel a reaction from a listener' (Berk and Garvin 1984: 271), Piaget's conception of this type of speech was quite different from that of Vygotsky. Piaget (1953) used the term 'egocentric speech' and he argued that egocentric speech represents a child's immaturity in taking into account the perspective of others. This reflects Piaget's (1953) theory of cognitive development. Piaget's view is constructivist, because he firmly believed that knowledge acquisition is a process of continuous self-construction. That is, knowledge is not out there, external to the child and waiting to be discovered. Instead, knowledge is invented and reinvented as the child develops and interacts with the surrounding world. While Piaget did not rule out the importance of the child's family (the social constructivist view) he placed less emphasis on this than Vygotsky (Smith et al. 1998). Essentially constructivist theory argues that knowledge is a 'web of relationships' and is constructed actively by learners as they attempt to make sense of their experiences and environments (Driscoll 2000).

During Piaget's (1953) observations regarding egocentric speech, he attempted to categorize all speech forms of children aged 6 years. He described eight categories in all and three of which he identified as being egocentric. The first categorization was repetition (echolalia) where a child's imitation of others words often completely unconscious. Second, he defined 'monologue', which is speech that accompanies action and a child often describes the

action, the object of the action or a desire for something. Finally, he identified collective monologue which is essentially the same in context as monologue itself, but is marked with some indication that the child's intends to interest or thinks he/she is interesting to others in their thoughts or through the activities that they undertake (Zivin 1979). Thus according to Piaget, children rarely take their listener's perspective into account and he argued that egocentrism is the predominant factor of children's intellectual processes up until the age of 8 years (Zivin 1979). Indeed for Piaget it is not necessary for a listener to be present as before a child is able to think logically (what Piaget (1953) termed the 'pre-operational' stage) children display no social speech in social situations because they are unable to shift perspectives (decentre) from themselves to others. The child in Piaget's view is unwilling to become involved in the communicative process (Zivin 1979).

Piaget (1953) therefore believed that private speech expresses itself in a totally different form and that egocentric (private speech) represents a lack of communicative intent. Thus rejecting the view of the merging of language and thought postulated by Vygotsky. Conversely, Vygotsky (1978) argues that as preschool children gradually become able to appreciate the view of others, such speech decreases, as it becomes replaced by 'truly socialised communication' and this is a 'developmental achievement indicative of the school aged child's new capacity for reflective thought' (Bivens and Berk 1990: 443).

The following example illustrates how a 3-year-old boy engages in private speech to guide himself through a task:

Jack is in the garden, in the dirt playing with several Bob the Builder diggers. Previous to this he had read a book on diggers and discussed what each vehicle does to build a road. He lines the diggers up in the soil. He then starts to sing (to the theme of 'Here we go round the Mulberry Bush'. 'I am going to dig up the land, dig up the land, dig up the land, I am going to dig up the land on a Wednesday morning. I am going to put safety cones around, safety cones around I am going to put safety cones around to keep all the people safe. I am then going to flatten it, flatten it, flatten it. I am then going to flatten it to make the land nice and flat. I am going to build a flat road build a flat road build a flat road, I am going to build a flat road on a sunny Wednesday morning. My work is now done for the day, done for the day, done for the day, my work is now done for the day and the road is ready to drive on.'

For Vygotsky (1978), at first private speech follows an action, occurring as an afterthought (as illustrated by Jack in the example above). Then speech occurs simultaneously with behaviour and during these two phases it is largely an accompaniment to the child's activity. Finally private speech moves towards the starting point of action and assumes a self-regulatory function through

a child planning and modulating their behaviour on a moment-by-moment basis, as they grapple with challenging tasks. As mastery over behaviour improves, structural changes in private speech occur. Once private speech differentiates from social speech it need no longer occur in a fully expanded linguistic form, since adults as well as more able peers help children accomplish culturally meaningful activities, socially generated tools of thought, semantic knowledge, problem-solving procedures and meta cognitive strategies are incorporated into children's private speech and consequently into their thinking (Vygotsky 1978). According to Kozulin et al. (2003: 160), 'from using complete sentences typical for social speech, a child's utterances change into abbreviated phrases and single words unsuited for the purposes of communication to other people. But sufficient for communication with oneself' (again as illustrated by Jack in the example above).

Vygotsky (1987) discussed how this major change in a child's private speech occurs during their preschool years. Thus in Vygotsky's theory, 'private speech is both the precursor of conscious self regulatory thought and a critical link in the cultural transmission of cognitive skills from one generation to the next' (Berk 1992, quoted in Fernyhough and Lloyd 1999: 34).

It can be seen that Piaget and Vygotsky's theories differ in a number of ways. Piaget's idea is that egocentric speech utterances represent a lack of communicative intent; Vygotsky on the other hand postulated that speech for oneself reflects a 'parasocial' will to communicate. Vygotsky believes that the child is able to distinguish between themselves as the speaker and an external listener. The child is parasocial in that they do not distinguish themselves both as a listener and as an external listener. Therefore, according to Vygotsky, early self-guiding speech is in fact overt (Zivin 1979). Thus because Vygotsky had such a different view of egocentric speech from that of Piaget, it was relabelled private speech. As a way of synthesizing these two different perspectives, this chapter calls this speech 'personalised speech' which, as Kozulin et al. (2003: 156) define, is speech which goes 'from public to private speech'. I feel this offers a clearer view of what this chapter is aiming to exemplify.

Kohlberg et al. (1968) have also attempted to resolve the differences between Piaget and Vygotsky's unitary conceptualizations, particularly in relation to Piaget's view that private speech enhances self-guidance. Kohlberg et al. (1968) focused heavily on the work of Mead (1934), who supports Vygotsky's ideas, that private speech is assumed to have a cognitive self-guiding and self-communicative function. Mead 1934 (quoted in Berk and Garvin 1984: 167) states that speech and thought always have dialogue forms and functions and that knowledge by children of the meaning of their own actions occurs in the development of attempting to communicate that meaning to others. According to Mead (1934), young children can see themselves only from the perspective of others. This process actually begins by children describing their own actions to others and by calling out in themselves their implied response.

Subsequently, during this process, children begin to distinguish between the speaking self, from the self being talked to (Berk and Garvin 1984).

Kohlberg et al. (1968) developed six categories of private speech and provided evidence that they are part of a five-level developmental hierarchy. In this hierarchy, Piaget's (1929: 26) 'collective monologue' and 'monologue' are relabelled as 'describing one's own activity', because they are interpreted to be explanations of the self actions to a non-specific auditor, which is neither the self or the other. In other words, Kohlberg et al. (1968) suggest that private speech follows a curvilinear course of development and that it peaks earlier for more able children, thus concurring with the views of Vygotsky. For both Vygotsky (1978) and Kohlberg et al. (1968), children are constantly guided through verbal commands by others and as children attempt to control their own actions they imitate the same vocal method others have been using to help them. This again also emphasizes the important role the adult has to play in facilitating and expanding children's personalized speech, which is discussed later on in this chapter.

Moreover, to clarify the difference between social and private (personalized) speech, private speech in contrast to social speech is defined as 'speech addressed to the self (not to others) for the purpose of self regulation (rather than communication)' (Diaz and Berk 1992: 62). Additionally, Vygotsky (1978) claimed that at an early age, private speech and social speech were not clearly differentiated. Thus as the child gets older, the difference between social and private speech can be seen, by the gradual increase in syntactical form and loudness of private speech utterances. Vygotsky (1978) implied that during the course of development, private speech becomes more and more distinguishable from social speech. However, Wertsch (1979, cited in Diaz and Berk 1992), for example, points out that private speech and social speech do in fact share important content and structural similarities. As Goudena (1987) suggests, private speech utterances such as 'it doesn't fit' have a clear social nature, as they represent not only a statement about the task, but also a request for adult help.

Another obvious distinction between private speech and social speech is that it has been suggested that speech used by mothers in verbal interaction, perform very similar functions as those performed by children's private speech (Diaz and Berk 1992). Vygotsky (1987) hypothesized that the phenomenon of private speech (self-talk used by children in various situations that is not addressed to others) reflects children's potential for self-direction to plan, guide, and monitor their own goal-directed activity. This can be illustrated in the following example of a 6-year-old girl trying to problem solve a mathematics activity:

The child is adding two, two-digit numbers: Sarah is at the table and looks at her maths book. She then looks up into the air and begins to quietly count on her

fingers. She stops and pauses and writes something down. She then again looks up in to air and begins to count on her fingers quietly. She then taps her pencil back and forth and looks at her maths paper. She then looks up and observes the child opposite while her lips are moving. She then taps her pencil again and writes the answer down on her paper.

It is clear from this example how Sarah is using private speech utterances, which are personalized to the task she is doing. This includes gestures, movement and observing others. The speech here is not used for the purpose of communication to another peer or adult but as a guiding force in solving the maths problem. According to Vygotsky (1978), the quantity of private speech utterances undertaken by children aged 3–6 years can be linked to their success and task performance.

The relationship between private speech and task performance

A number of researchers, for example Diaz and Berk (1992) and Kohlberg et al. (1968), have investigated this particular aspect, but clear evidence of positive correlation between the frequency of private speech during a given task and task success has been relatively scarce (Berk 1986). Studies utilizing a Vygotskian framework have regularly argued that private speech serves a variety of different functions regarding task performance. These include sustaining attention, guiding problem-solving steps and pacing motor activity. It must also be mentioned that a variable which will affect all of these is task difficulty. Diaz (1992: 76) outlines the relationship between task difficulty and task performance in a four-step progression:

- *Step 1:* If a child is competent in a given task, very little or no use of private speech is necessary.
- *Step 2:* As the task becomes more difficult, challenging the child's current level of ability and competence, private speech will be used in an attempt to gain new and higher levels of mastery on the task.
- *Step 3:* If the child's private speech is in fact sufficient, it will guide and create new and high levels of ability and competence.
- *Step 4:* Finally, increasing levels of competence on the tasks will reduce the need to use private speech bringing the child back gradually to the situation in Step 1.

A study carried out by Zivin (1979) also found that children who were 4 years of age and who did not talk while completing finger mazes were faster and more accurate than children who produced some kind of private speech.

Furthermore, Goodman (1981) reported that even in some studies where there has been some association between private speech and problem solving, task-relevant verbalizations have not necessarily led to more successful task performance. Berk and Landau (1993) claim that the lack of significance between task success and the amount of private speech produced does not necessarily contradict Vygotsky's theory. This is because the amount of private speech invariably increases with difficulty and children are more likely to fail if they find the task too difficult. However, Berk and Landau (1993: 558) conclude that both the production of private speech and the likelihood of failure are 'functions of task difficulty, private speech will more often co-occur with failed tasks than with successful performance'.

There is a notion that private speech can also determine a child's intellectual ability, as it is known to peak earlier for more able children (Kohlberg et al. 1968; Vygotsky 1978). This could be one way in which early years practitioners could observe and assess each child's intellectual capability to inform their future planning. Vygotsky (1978) also observed that the more challenging the task, the more private speech would be produced. In support of this, Levina (1968, cited in Vygotsky 1978) observed that children in an experimental situation not only act in achieving a goal but also speak. Vygotsky concludes from this that private speech (or personalized speech) is as important as the role of action in attaining a goal and that the more complex the task and the less direct its solution, the more there will be an increase in the amount of speech produced (Zivin 1979).

To summarize, the importance of the role of the adult and the dialogues they have with children is paramount for Vygotsky, particularly in relation to adults who engage with the child as a collaborative partner. Vygotsky (1978) argues that children who experience this type of enriched environment are more likely to produce more private speech utterances; they thus master tasks beyond their level more competently and at an earlier stage of their development, emphasizing the importance of the role of the adult in engaging in activities with children including make-believe play, constructive play, outdoor play and more potentially structured activities when private speech (personalized speech) begins at approximately 3 years of age.

The importance of adult–child and child–child dialogue

According to Vygotsky (1978), 'mental functioning in an individual can be understood only by examining the social and cultural processes from which it derives' (Wertsch 1991: 548). Thus to know an individual, we must also understand the social relations in which any particular individual exists by going 'outside' the individual. Bernstein (1996: 21) supports this view and highlights the importance of a child's family and the school, stating, 'the

	<i>School knowledge</i>	<i>Local knowledge</i>
<i>Visible pedagogy</i>	Explicit instruction in the school curriculum (e.g. ABC learned by rote and recited, ABC books taught)	Explicit instruction in a non-school curriculum (e.g. mosque, Sunday school, Urdu classes)
<i>Invisible pedagogy</i>	Implicit instruction in the school curriculum (e.g. fridge magnets, nursery rhyme CDs, DVDs)	Implicit instruction in a non-school curriculum (apprenticeship into home and family routines and responsibilities)

Figure 1.2 An illustration of Bernstein's visible and invisible pedagogy. (Adapted from Brooker 2002: 64)

domestic transmission of school knowledge is more influential in children's subsequent school careers than what is taught and learned' (Bernstein 1996: 21). Bernstein (1996) breaks this down further by referring to school knowledge as 'official' because it is the means of entry into the mainstream culture and local knowledge, which is different for every family and community (illustrated in Figure 1.2).

Moreover, Edmiston (2008: 173) refers to an ethical pedagogy which 'develops from such philosophical assumptions encompasses learning and care and caring within a broad concern of all aspects of life'. Edmiston (2008) then proceeds to argue:

in using the term pedagogy I reject false dichotomous beliefs that would attempt to separate the social constructivist process of learning from teaching, conceptualise them as divided between adult and child, or view of caring relationships as optional in classrooms.

(Edmiston 2008: 173)

What this suggests is adults albeit at home or in school should be creating a shared culture where children and adults can engage together in a shared dialogue in a potentially wide range of possibilities around 'the locus of an ethical encounter' (Edmiston 2008: 174), where adults and children may collaboratively examine the question of just being together.

Thus, once again highlighting Vygotsky's thinking in relation to the importance of the adult in modelling language, which a child then takes on board when expressing their private speech utterances. Vygotsky's claims about the social origins of mental functioning and the impact of 'going outside' the individual have surfaced in many ways throughout his writings – two issues which

have taken a significant importance in his social constructivist approach are public and private speech (as previously mentioned) and the zone of proximal development (Wertsch and Tulviste 1992).

The ZPD can be defined as the distance between a child's actual development as determined by independent problem solving. The higher level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.

(Wertsch and Tulviste 1992: 549)

Vygotsky postulates how the implications of the ZPD are for the observation and assessment of children as well as allowing the teacher to monitor a child's progress and thus to plan a child's next step. This also gives practitioners a baseline to work from for future curriculum planning. Furthermore, as Vygotsky stipulated that practitioners should aim to teach at a child's potential development, he also believed that measuring the child's actual development was important.

The following example illustrates Vygotsky's ideas regarding assessment relating to the ZPD:

Imagine we have examined two children and have determined that the mental age of both is seven years. This means that both children solve tasks accessible to seven year olds. However when we attempt to push these children further in carrying out the tests, there turns out to be an essential difference between them. With the help of leading questions, examples and demonstrations, one of them easily solves the test items taken from two years above the child's level of (actual) development. The other solves test items that are only a half year above his/her level of (actual) development.

(Vygotsky 1986, cited in Wertsch and Tulviste 1992: 549)

A significant question here relates to whether the development of mental functioning is the same for these two children. In Vygotsky's view they are not the same. This is because, with the help of adults, what a child is capable of doing is acknowledged, hence the child's zone of proximal development. The notion of the ZPD is a key element in the pedagogical approaches to supporting learning as proposed by Vygotsky (1987). Vygotsky illustrates the ZPD with reference to the observation that different children of the same age will be able to achieve tasks of different complexity when tutored by the same adult, 'this difference between the child's actual level of development and actual level of performance that he achieves in collaboration with others, defines the zone of proximal development' (Vygotsky 1987: 209).

Mercer (1991) articulates a neo-Vygotskian perspective in which a practitioner does not treat children's talk as a 'transparent window' on the mind, talk is not 'simply thinking out loud'. Instead the neo-Vygotskian view contends that to talk and to communicate with others through speech is to engage in the 'social nature of thinking' (Mercer 1991: 63). Through talking and listening, information gets shared, people get to know each other, ideas may change and alternative perspectives become available as well as an increase in private speech utterances (Mercer 1991).

Recently in England, longitudinal research in early years settings has identified strong evidence for the value of adults engaging with children collaboratively in activity through the strategy of 'sustained shared thinking' to support their cognitive development (the Effective Provision of Preschool Education (EPPE) Project – Sylva et al. 2004; Researching Effective Pedagogy in the Early Years (REPEY) Project – Siraj-Blatchford et al. 2002). According to Siraj-Blatchford (2007), sustained shared thinking involves

episodes in which two or more individuals 'worked together' in an intellectual way to solve a problem, clarify a concept, evaluate activities or extend narratives etc. During a period of sustained shared thinking both parties contributed to the thinking and developed and extended the discourse.

(Siraj-Blatchford 2007: 147)

The findings of the EPPE and REPEY projects demonstrate that sustained shared thinking (SST) is crucial for effective, high quality settings.

As Siraj-Blatchford and Manni (2008: 3) note, there are 'strong theoretical resonances' between SST and the work of Vygotsky (1978) in particular in relation to the ZPD. Significantly, the new statutory Early Years Foundation Stage (EYFS) (Department for Education and Skills (DfES) 2007) includes sustained shared thinking as one of its core 'Principles of Learning and Development' (DfES 2007: Sect. 4.3c). All practitioners with young children under 5 in England are therefore currently expected to engage in SST.

As REPEY found, sustained shared thinking was much more likely to happen when children were interacting one to one with an adult or with another child (peer) and that freely chosen play activities often provided the best opportunities for adults to extend children's thinking (Siraj-Blatchford et al. 2002). Based on 'joint activity' (Jordan 2009) involving shared thinking and attention, a child's initiative, participation and influence may be supported, expanded and challenged in different ways and directions. However, there is very limited research evidence to demonstrate exactly how freely chosen (child initiated) play activities afford opportunities for practitioner engagement and SST.

Implications for practice

It is evident in a wide variety of early years settings how influential Vygotsky's thinking has been in changing professional practice, not only in England but across the world. The concept and ideology of the ZPD has arguably become more familiar within the early years workforce; however, Vygotsky's ideas in relation to private speech and how children guide themselves through tasks is less well known. This chapter offers an insight into the concept of private speech and it is argued here that by more closely observing the actions and private speech that children use, practitioners can be provided with an additional understanding of the different ways children accomplish and solve problems and use this understanding to plan and evaluate future activities. With the inclusion of the practice of SST within the EYFS in England, there is an even greater emphasis on practitioners' knowledge of Vygotsky's theory illuminating the role of private or personalized speech.

It follows that pedagogical practices need to provide opportunities for a balance of child and teacher led activities, which are carefully planned and developmentally appropriate through open ended questions and encouraging, engaging and prompting children in internalizing their thoughts through language. Mercer and Littleton (2007) support this view and state that

we would never claim that everything that can be thought can be thought in language, or that language is involved in all rational thinking. But language is without doubt the most ubiquitous, flexible and creative of the meaning making tools available, and it is the one most intimately connected to the creation and pursuit of reasoned argument.

(Mercer and Littleton 2007: 2)

They therefore argue that language and in particular spoken dialogue deserves special attention and recognition. Mercer and Littleton (2007), highlighting Vygotsky's emphasis on the importance of children learning from the communicative tools and symbols of their culture, remind us that

social experience does not provide all children with the same language experiences, so we cannot assume that all children naturally have access to the same opportunities for developing their use of language as a tool for learning, reasoning and solving problems.

(Mercer and Littleton 2007: 2)

Thus children without the good practice of modelling and the guidance of a practitioner may not gain access to some very useful ways of 'using language as

a tool for reasoning, learning and working collaboratively because those “ways with words” are simply not part of their experience’ (Mercer and Littleton 2007: 3).

In England current government initiated projects such as ‘I Can’ (2008) and ‘Every Child a Talker’ (National Strategies Early Years 2008) are aimed at raising the awareness of parents and practitioners with regard to the importance of speech, language and communication for children in their earliest years. As this chapter has illustrated, children who engage in enriched language environments are more likely to produce more private speech utterances and master tasks above their current level of development. As Vygotsky (1978: 7) stated, ‘the mechanism of individual developmental change is rooted in a child’s society and culture’.

Suggested further reading

- Daniels, H. (2001) *Vygotsky and Pedagogy*. London: Routledge.
- Kozulin, A., Ginis, B., Ageyev, V.S. and Miller, S.M. (2003) *Vygotsky’s Educational Theory in Cultural Context*. New York: Cambridge University Press.
- Mercer, N. and Littleton, K. (2007) *Dialogue and the Development of Children’s Thinking*. London: Routledge.

References

- Berk, L.E. (1986) ‘Relationship of elementary school children’s private speech to behavioural accompaniment to ask, attention and task performance.’ *Development Psychology*, 22(5): 671–680.
- Berk, L.E. (1992) ‘Children’s private speech: A overview of theory and the status of research.’ In R.M. Diaz and L.E. Berk (eds) *Private Speech: From social interaction to self regulation*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Berk, L.E. and Garvin, R.A. (1984) ‘Development of private speech among low income Appalachian children.’ *Developmental Psychology*, 20(2): 271–286.
- Berk, L.E. and Landau, S. (1993) ‘Private speech of learning disabled and normally achieving children in classroom and laboratory contexts.’ *Child Development*, 64: 556–571.
- Bernstein, B. (1996) *Pedagogy, Symbolic Control, and Identity*. London: Taylor & Francis.
- Bivens, J.A. and Berk, L.E. (1990) ‘A longitudinal study of elementary school children’s private speech.’ *Merrill Palmer Quarterly*, 36(4): 443–463.
- Brooker, L. (2002) *Starting School: Young children learning cultures*. Buckingham: Open University Press.
- Daniels, H. (2001) *Vygotsky and Pedagogy*. London: RoutledgeFalmer.

- Davydov, V.D. and Zinchenko, V.P. (1989) 'Vygotsky's contribution to the development of psychology.' *Soviet Psychology*, 27(2): 22–36.
- Department for Education and Skills (DfES) (2007) *The Early Years Foundation Stage: Setting the standards for learning, development and care*. Nottingham: DfES.
- Diaz, R. (1992) 'Methodological concerns in the study of private speech.' In R.M. Diaz and L.E. Berk (eds) *Private Speech: From social interaction to self-regulation*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Diaz, R.M. and Berk, L.E. (eds) (1992) *Private Speech: From social interaction to self-regulation*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Driscoll, P.M. (2000) *Psychology of Learning for Instruction*. Boston, MA: Allyn & Bacon.
- Edmiston, B. (2008) *Forming Ethical Identities in Early Childhood Play*. London: Routledge.
- Fernyhough, C. and Lloyd, P. (1999) *Lev Vygotsky: Critical assessments*. New York: Routledge.
- Goodman, S.H. (1981) 'The integration of verbal and motor behaviour in preschool children.' *Child Development*, 52: 280–289.
- Goudena, P.P. (1987) 'The social nature of private speech of preschoolers during problem solving.' *International Journal of Behavioral Development*, 10: 187–206.
- I Can (2008) *I Can Early Talk: A supportive service for children's communication. Accreditation standards*. Available at www.ican.org.uk/early%20talk/accreditation%20information/communication%20settings.aspx (accessed 14 September 2009).
- Jordan, B. (2009) 'Scaffolding learning and co-constructing understandings.' In A. Anning, J. Cullen and M. Fleer (eds) *Early Childhood Education*, 2nd edn. London: Sage.
- Kohlberg, L., Yaeger, J. and Hjerthol, E. (1968) 'Private speech: Four studies and a review of theories.' *Child Development*, 39: 691–736.
- Kozulin, A., Gindis, B., Ageyev, S.A. and Miller, S.M. (2003) *Vygotsky's Educational Theory in Cultural Context*. New York: Cambridge University Press.
- Mead, G.H. (1934) *Mind, Self and Society*. Chicago, IL: University of Chicago Press.
- Mercer, N. (1991) 'Accounting for what goes on in classrooms: What have neo-Vygotskians got to offer?' *Education Section Review*, 15(2): 61–67.
- Mercer, N. and Littleton, K. (2007) *Dialogue and the Development of Children's Thinking*. Abingdon: Routledge.
- National Strategies Early Years (2008) *Every Child a Talker: Guidance for early language lead practitioners*. Nottingham: DCSF.
- Piaget, J. (1929) *The Child's Conception of the World*. London: Routledge.
- Piaget, J. (1953) 'How children form mathematical concepts.' *Scientific American*, November: 74–79.
- Siraj-Blatchford, I. (2007) 'Creativity, communication and collaboration: The identification of pedagogical progression in sustained shared thinking.' *Asia Pacific Journal of Research in Early Childhood*, 1(2): 99–114.

- Siraj-Blatchford, I., Sylva, K., Muttock, S., Gilden, R. and Bell, D. (2002) *Researching Effective Pedagogy in the Early Years*. Research Report 356. Oxford: Department of Educational Studies, University of Oxford.
- Siraj-Blatchford, I. and Manni, L. (2008) “‘Would you like to tidy up now?’” An analysis of adult questioning in the English Foundation Stage.’ *Early Years: An International Journal of Research and Development*, 28(1): 5–22.
- Smith, P., Cowie, H. and Blades, M. (1998) *Understanding Children’s Development*, 3rd edn. Oxford: Blackwell.
- Stone, A. (1998) ‘The metaphor of scaffolding: Its utility for the field of learning disabilities.’ *Journal of Learning Disabilities*, 3(4): 344–364.
- Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I. and Taggart, B. (2004) *The Effective Provision of Pre-school Education (EPPE) Project: Findings from preschool to the end of Key Stage 1*. London: Institute of Education, University of London.
- Vygotsky, L.S. (1978) *Mind in Society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Vygotsky, L.S. (1987) *The Collected Works of L.S. Vygotsky, Volume 1*. New York: Plenum.
- Wells, G. (1999) *Dialogic Enquiry: Toward a sociocultural practice and theory of education*. Cambridge: Cambridge University Press.
- Wertsch, J.V. (1979) ‘From social interaction to higher psychological processes: A clarification and application of Vygotsky’s theory.’ *Human Development*, 22: 1–22.
- Wertsch, J.V. (1991) *Voices of the Mind: A sociocultural approach to mediated action*. Hemel Hempstead: Harvester Wheatsheaf.
- Wertsch, J.V. and Tulviste, P. (1992) ‘L.S. Vygotsky and contemporary developmental psychology.’ *Developmental Psychology*, 28(4): 548–557.
- Zivin, G. (1979) *Removing Common Confusions about Egocentric Speech and Self Regulation*. New York: Wiley.