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The Relationship Between Language and thought: Exploring Vygotsky and Sociocultural Approaches to Second Language Research

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Abstract

This article introduces Vygotsky's sociocultural approach to mind by reviewing two key interrelated themes taken from his work, namely, the social nature and origins of individual higher mental functions and the role of cultural tools as mediational means. Particular attention is given to language throughout the discussion, as language was of primary concern to Vygotsky and it also provides the link to second language research. Ways of viewing second language learning through a sociocultural lens are considered, with emphasis on a broadened view of the *zone of proximal development* and the notion of collaborative dialogue. The article points toward ways in which sociocultural approaches offer new and expanded methods of conducting and interpreting research in second language education.

In this article I introduce Vygotsky and his work. I outline some of his key ideas and then focus on those that relate most specifically to his views on the relationship between language and thought. Because the key themes in Vygotsky's work are very interrelated, a separation of ideas is somewhat artificial but can help illuminate principle tenets. Following my discussion of Vygotsky's work, I explore how recent scholars in second language learning have grounded their approaches to research in Vygotskian and neo-

Vygotskian theories. I give particular attention to the notion of collaborative dialogue occurring in the zone of proximal development and how the former holds promise for new ways of viewing second language learner interactions in educational contexts.

Lev Vygotsky

Lev Vygotsky was a Russian psychologist born in 1896. Although Vygotsky's life was cut short when he died in 1934 from tuberculosis, he produced nearly 200 works. Among these, his most influential is arguably his book *Thought and Language* (1962). Vygotsky's work was banned in the Soviet Union from 1936 to 1956 due to a number of reasons stemming from the historical-cultural period in which he wrote, namely Revolutionary and post-Revolutionary/Stalinist Russia. In consequence, Vygotsky's work was not widely available to researchers until the 1960s. Since then, Vygotsky's work has enjoyed increasing influence on psychology and education (Meece, 1997; Wertsch, 1985). Throughout his works, Vygotsky reevaluated and updated his thinking as new information became available and as his interests evolved (DeVries, 2000; Shayer, 2003). Nonetheless, a number of key theories clearly emerge from his collection of works.

An overview of Vygotsky's theories

Guiding my exploration of some of the main elements of Vygotsky's work will be Wertsch and Tulviste's (1994) discussion of Vygotsky's key contributions to developmental psychology, which they frame within two themes: "[Vygotsky's] claims about the social origins and social nature of higher (i.e., uniquely human) mental functioning and his uses of culture" (p. 334). It is important to note that within the first theme regarding the social origins of mental functioning, there is a subtheme that acknowledges the role of a developmental method within Vygotsky's work. This subtheme will be addressed as it relates to the larger theme of the social origins of higher mental functioning. It is also worth noting that Wertsch, in earlier publications (e.g., Wertsch, 1985, 1993), has described three basic themes within Vygotsky's work: a reliance on genetic, or developmental, analysis; the social origins of individual higher mental functioning; and the mediation of human action by tools and signs (role of culture). However, Wertsch (1985) underscores the interrelatedness of the themes, and in particular, how the "very notion of origins in the second theme points toward a genetic analysis" (p. 15). As such, because of the interrelated nature of the themes of Vygotsky's work and because the purpose of this article is to focus on language, I will proceed using the essentially two-pronged

approach to Vygotsky's work found in Wertsch and Tulviste. Thus, this overview of Vygotsky's work begins by examining his theories on the social origins of individual higher mental functioning.

The social origins of higher mental functions

Before elaborating on Vygotsky's theories regarding the social origins of *higher mental functions*, it is useful to define the term. According to Vygotsky, higher mental functions, for example, thinking, voluntary attention, and logical memory, are uniquely human and are mediated by tools and sign systems such as language (Wertsch, 1993). With regard to the social nature of individual higher mental functioning, Vygotsky's beliefs can perhaps best be summed up in what Wertsch (1993) has referred to as Vygotsky's "most general statement about the social origins of individual mental functioning," his "general genetic law of cultural development" (p. 26), which states that:

Any function in the child's cultural development appears twice, or on two planes. First it appears on the social plane, and then on the psychological plane. First it appears between people as an interpsychological category, and then within the child as an intrapsychological category. This is equally true with regard to voluntary attention, logical memory, the formation of concepts, and the development of volition...[I]t goes without saying that internalization transforms the process itself and changes its structure and functions. *Social relations or relations among people genetically underlie all higher functions and their relationships* [emphasis added]. (Vygotsky as cited in Wertsch, 1993, p. 26)

In other words, the emphasis is placed upon the processes occurring between people, on the "intermental plane" (interpsychological), and the resulting, or derivative, processes occurring within the individual, on the "intramental plane" (intrapsychological), are seen as "emerging through the mastery of internalization of social processes" (Wertsch & Tulviste, 1994, p. 335). According to Wertsch and Tulviste (1994), Vygotsky believed that the mind "extend[s] beyond the skin" and as such "mind, cognition, memory, and so forth are understood not as attributes or properties of the individual, but as functions that may be carried out intermentally or intramentally" (p. 336).

Vygotsky's focus on the intermental and intramental planes, and the interaction between these as a way to construct knowledge,

forms the basis of his “general genetic law of cultural development” and is a key tenet in his view of the social nature of cognitive development. Within the framework of his general genetic law of cultural development, and clear from the title, is the notion that, in addition to a social element, there is a genetic, or developmental, method at play when it comes to changes in human mental functioning. Vygotsky (1978) explained that, “we need to concentrate not on the product of development but on the very process by which higher forms are established” (p. 64). Furthermore, he argued that, “in ontogenesis, a ‘natural’ and a ‘cultural,’ or ‘social,’ line of development interact to create the dynamics of change” (Wertsch, 1993, p. 22). Vygotsky’s belief in an interplay between a certain “natural” course of development and the equally, or perhaps, more important, way in which this natural development is constructed socially, provides the basis for virtually all his work and is closely intertwined with his views on the role of culture within the developmental framework. As such, two important concepts, namely the notion of the “zone of proximal development” (Vygotsky, 1978, p. 86) and the notion of “egocentric” and “inner speech” (Vygotsky, 1962, pp. 14 & 149) can be viewed as reflections of his (Vygotsky’s) more general concern with the sociocultural origins of individual higher mental functioning (Wertsch & Tulviste, 1994, p. 337).

The zone of proximal development

Vygotsky (1978) defined the zone of proximal development as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p. 86). Within the framework of the intermental and intramental planes, the zone of proximal development (ZPD), or a child’s potential level of development, corresponds to the former while the child’s actual level of development corresponds to the latter (Meece, 1997; Wertsch & Tulviste, 1994). The ZPD takes into account the dynamic nature of development in that it allows for consideration not only of a child’s present developmental achievements but also of his or her developmental potential. The ZPD can be a reliable predictor of where a child is headed in his or her developmental process. In fact, according to Vygotsky (1978), “what is the zone of proximal development today will be the actual developmental level of tomorrow – that is, what a child can do with assistance today she will be able to do by herself tomorrow” (p. 87).

In educational settings, the ZPD is often put into practice in a technique sometimes referred to as “scaffolding” (Lake, 2012, p. 53; see also Auger & Rich, 2007; Meece, 1997), whereby a more capable leader, who could be the teacher or a peer, guides the learning process with questions and prompts. The assistance provided can be physical or verbal, depending on the nature of the task. While a given task may be beyond learners’ initial capability, they gradually become able to master it on their own. Learners internalize knowledge that has been co-constructed and are able to apply it to novel problems (Auger & Rich, 2007; Cole, 1985; Meece, 1997). Thus, the theory of a ZPD has “powerful implications for how one can *change* intermental, and hence intramental, functioning” (Wertsch & Tulviste, 1994, p. 337). Vygotsky described the relationship between development and instruction as “two processes that exist in very complex interrelationships” (Vygotsky as cited in Wertsch, 1985, p. 70). That said, although instruction “creates” the ZPD, a child can only progress “within certain limits that are strictly fixed by the state of the child’s development and intellectual possibilities” (Vygotsky as cited in Wertsch, 1985, p. 70). Overall, however, “learning leading development” (Lake, 2002, p. 56) is the overarching feature of the ZPD.

Egocentric and social speech

A second important subtheme related to Vygotsky’s theory of the social nature of individual mental development is the notion of egocentric and inner speech. In this case, in the very nature of Vygotsky’s chosen terminology, that is, the use of the word *speech* rather than some of the more fashionable terms of the time such as *thinking* or *mental processes*, one can see the importance placed on the social nature of knowledge building. “Vygotsky’s use of the term speech here reflects the fact that he viewed individual mental functioning as deriving essentially from the mastery and internalization of social processes” (Wertsch & Tulviste, 1994, p. 338). As such, as previously mentioned, the concept is really a part of Vygotsky’s larger general genetic law of cultural development. According to Vygotsky, after children engage in verbal social interaction, using social, or external, speech, they begin to use inner speech to plan their action. This is a key step on the way to self-regulation. The appearance of egocentric speech, which occurs during the transition from social speech to inner speech, marks the beginning of this shift towards self-regulation (Meece, 1997; Vygotsky, 1962; Wertsch & Tulviste, 1994). Toward this end, and true to the interrelatedness of Vygotsky’s theories, inner and egocentric speech are language-specific ideas that are linked strongly

to Vygotsky's theory of a ZPD. For example, as Swain (2011, November) has explained, "the movement from other- to self-regulation" (n.p.) represents the changes that ultimately occur on the intramental plane in the ZPD. Furthermore, inner and egocentric speech and the ZPD are also fundamental to Vygotsky's theories on the relationship between language and thought and thus will be revisited in further detail later in this article.

Cultural tools as mediational means

Both the ZPD and inner and egocentric speech are subthemes of the first of two larger themes found throughout Vygotsky's work, namely that of the social origins of individual mental functioning. As previously noted, Wertsch and Tulviste (1994) have explained that a second general theme can also be seen throughout Vygotsky's work, and that is the role of culture in the development of individual higher mental functioning. It is another example of Vygotsky's belief that the mind "extend[s] beyond the skin" when his theories suggest, "human mental functioning...involves cultural tools, or mediational means;" furthermore, these cultural tools are "socially evolved and socially organized" (Wertsch & Tulviste, 1994, p. 341). Examples of these cultural tools, which Vygotsky referred to as "psychological tools" (e.g., Vygotsky as cited in Wertsch & Tulviste, 1994, p. 342) include "*language* [emphasis added]; various systems for counting; mnemonic techniques; algebraic symbol systems; works of art; writing; schemes, diagrams, maps, and mechanical drawings; all sorts of conventional signs; and so on" (Vygotsky as cited in Wertsch & Tulviste, 1994, p. 342). The use of tools as mediational means alters higher mental functioning. It does not simply make a so-called predetermined process of any given individual human mental functioning easier (Wertsch & Tulviste, 1994). Clearly, embedded in Vygotsky's views on the role of culture in the development of individual mental functions is another important link with language, as this is a cultural tool that is of primary concern to Vygotsky.

As illustrated by my discussion of two key themes found in Vygotsky's work, which involve the social origins of, and the role of culture in, individual higher mental functioning, language plays a key role throughout. This is largely due to Vygotsky's belief that, "[higher mental functions'] composition, genetic structure, and means of action [forms of mediation] – in a word, their whole nature – is social. Even when we turn to mental [internal] processes, their nature remains quasi-social" (Vygotsky as cited in Wertsch, 1993, p. 27). Language, in turn, is the most important cultural tool used in this social construction. This also reinforces Wertsch's (e.g., 1985,

1993) assertion that any themes discussed in relation to Vygotsky's work will be very interrelated and a separation, while useful for analysis and discussion, is largely artificial. In the following section, I revisit some parts of the theories discussed in the overview with a renewed focus on language, namely the notion of social, egocentric, and inner speech and the notion of cultural tools as mediators.

Vygotsky's theories on the relationship between language and thought

I return now to two concepts found in Vygotsky's work: the notion of different types of speech (external, egocentric, and inner) and the role these different types play in the development of individual higher mental processes; and the notion of the mediation of higher mental processes through the cultural tool of language. The role of external (social), egocentric, and inner speech can be viewed both as part of Vygotsky's more general concern with the social origins of individual mental functioning (e.g., Wertsch & Tulviste, 1994) and as part of his larger concern with the role of culture and psychological (cultural) tools in the mediation of mental functioning (e.g., Wertsch, 1985), keeping in mind as always that the two themes are highly interrelated parts of Vygotsky's overall sociocultural approach to cognitive development. I will elaborate first on Vygotsky's notion of culture and cultural tools, which will subsequently allow me to revisit social and egocentric speech.

Language as a cultural tool

The term "culture" is ambiguous and various theorists, philosophers, researchers, and others, depending on particular interests or foci, define it in various ways. Merriam-Webster online (2011) offers several definitions, including culture as "the integrated pattern of human knowledge, belief, and behavior that depends upon the capacity for learning and transmitting knowledge to succeeding generations" (n.p.). According to Wertsch and Tulviste (1994), explorations or explanations of the notion of culture in a more general sense are largely absent from Vygotsky's work. Rather, Vygotsky "understood culture as something that comes into concrete existence in social processes" (Wertsch & Tulviste, 1994, p. 341). Furthermore, these social processes incorporate "socially evolved and socially organized cultural tools" (Wertsch & Tulviste, 1994, p. 341). More specifically, Vygotsky was concerned with the role of psychological, or cultural, tools as mediational means and the cultural tool that was of primary concern was language. Vygotsky's interests lay firmly in the idea of mediation and his analysis of

culture is essentially used as a way to elaborate the notion. As such, while Vygotsky's use of culture is a second major theme described by Wertsch and Tulviste, his use of culture is part of his views on mediation. As such, I will reexamine Vygotsky's use of culture as it relates to the use of language as a cultural tool.

To discuss Vygotsky's notion of language as a cultural tool, an exploration of his ideas on semiotic mediation is essential. In his *Thought and Language* (1962), Vygotsky placed "primary emphasis...on how different forms of speaking are related to different forms of thinking" (Wertsch, 1993, p. 30). To investigate these different forms, Vygotsky (1962) examined mediation through "psychological tools" which he also called "signs" and which Wertsch sometimes calls "cultural tools" (e.g., Wertsch, 1993). Vygotsky differentiated between these psychological tools and those to which he referred as "technical tools." A technical tool, according to Vygotsky (as cited in Wertsch, 1985), "is directed toward the external world; it must stimulate some changes in the object," whereas a cultural tool "is a means for psychologically influencing behavior – either the behavior of another or one's own behavior" (p. 78). According to Wertsch (1985), there are a number of important points to consider with regard to psychological tools and higher mental functions. First, Vygotsky believed that the introduction of a psychological tool, namely language, into a mental function (for example, thought or memory) fundamentally changes that function. As Swain (2011, November) has explained, "language helps form thought, it is not just a conveyor of thought" (n.p.). And second, these psychological tools are social in nature, both on the broader, sociocultural domain and on the smaller, intermental domain; this intermental domain was Vygotsky's primary focus (Wertsch, 1993). As such, Vygotsky (as cited in Wertsch, 1985) stated that, "the primary function of speech, both for the adult and for the child, is the function of communication" (p. 81). It follows then that if the primary aim of language is to communicate, then language will be formed to meet this aim. Furthermore, if language also plays a key role in the development of individuals' mental functions, then such functions will also be indirectly shaped by what happens during communication and in the culture (Wertsch, 1985). Vygotsky's views on the communicative nature of all language led to his ideas about the goal and purpose of what he termed *egocentric speech*.

Egocentric speech as a transitional form

According to Wertsch (1985, 1993), the notion of egocentric speech is one that was a key focus for Vygotsky. Nonetheless, it is perhaps

useful here to briefly mention Jean Piaget since egocentric speech is more often associated with his work than with Vygotsky's, and since Piaget has had an arguably profound influence on education despite past and recent criticisms of his work (see, for e.g., Egan, 2002 for an in-depth critique). Moreover, although Vygotsky's analysis of egocentric speech was influenced by various other theories, it was Piaget's that provided the "particular impetus" for Vygotsky's work (Wertsch, 1993, p. 40). However, according to Wertsch, although there are some similarities among the analyses of these two theorists, Vygotsky's account of egocentric speech differs remarkably from Piaget's. Because of the different emphasis each theorist placed on language, the most fundamental difference can be summed up in the following statement: "Egocentric speech, from the Vygotskian perspective, is not an external indication of thinking [as in the Piaget perspective] – egocentric speech *is* thinking" (Duncan, 1995, p. 462). To elaborate, I will explain how Vygotsky's theory differs in two distinct ways from Piaget's on the function and the fate of egocentric speech.

Both Piaget and Vygotsky agreed that egocentric speech appears in the child's development at around three years of age. Aside from this rather small point of agreement, there are key differences to note. In Piaget's view, egocentric speech is a type of monologue, whereby even when potential listeners are present, the child speaks but has no intention of communicating, or being understood. Egocentric speech, according to Piaget, serves no real purpose and is symptomatic of the general egocentricity of the child at this age and stage. Speech, for Piaget, is thus separated into two functional categories: social and egocentric (Piaget, 1923/1959; Wertsch, 1985). In contrast, Vygotsky (as cited in Wertsch, 1985) claimed that, "the initial function of speech is the function of communication, social contact, influencing others. Thus the initial speech of the child is purely social" (p. 114). For Vygotsky, egocentric speech begins to emerge as the child begins to develop the capacity to plan his or her action. In other words, egocentric speech marks the beginning of the emergence of self-regulation. As such, when egocentric speech disappears, around age seven, it is actually being internalized and forms inner speech (Wertsch, 1985). Unlike Piaget, for whom egocentric speech simply loses its egocentric quality and disappears with progressive socialization and development, Vygotsky (as cited in Wertsch, 1985) viewed egocentric speech as,

a transitional form from external [social] to inner speech...It grows out of its social foundations by means of transferring social, collaborative forms of behavior to the sphere of the

individual's psychological functioning...Thus the overall scheme takes on the following form: social speech – egocentric speech – inner speech. (p. 117)

Vygotsky explained that out of an undifferentiated speech present in the child's early development, there emerges a differentiated speech with different structures and different functions, namely speech for oneself (inner speech) and speech for others (communication), and egocentric speech marks the transition between the two. The Piagetian and Vygotskian explanations of egocentric speech point not only towards some key differences between their views on the relationship between language and thought, but also further reinforce the difference in their fundamental orientations: "for Piaget, egocentric speech was speech in the process of being socialized, whereas for Vygotsky, it was an originally social phenomenon, in the process of being individualized and internalized" (Duncan, 1995, p. 461).

A Vygotskian Approach to Research in Second Language Education

Vygotsky's sociocultural approach to mind can provide a theoretical framework for researchers interested in second language teaching and learning. Lantolf (2000) describes the many approaches to second language research that have emerged in recent years and that have been grounded in Vygotskian theory. For example, Vygotsky's "ontogenic domain" (p. 3) has been a focus of study whereby researchers have explored children's voluntary memory and how mediational means (e.g., language) are integrated into the thinking process. Working within the framework of activity theory, which Lantolf described as "a unified account of Vygotsky's original proposals on the nature and development of human behavior" (p. 8), researchers have explored human social and mental behavior and how different motives can influence these even through the same activities (e.g., Wertsch, Minick, & Arns, 1984 in Lantolf, 2000). Still others have explored Vygotsky's notion of internalization and how this concept unfolds through private and social speech (e.g., Wertsch, 1985 in Lantolf, 2000). Finally, second language researchers have revisited Vygotsky's zone of proximal development (ZPD) and are calling for "a broader scope of the ZPD to include more than just expert/novice interaction" (Lantolf, 2000, p. 17). More specifically, researchers such as Donato (1994, 2000), Ohta (2000), Swain (2000), and Swain and Lapkin (1995, 1998) view both teacher-learner and learner-learner dialogue within the ZPD as an occasion for not only language use but also language learning. I pay close attention to

Swain's (2000) notion of collaborative dialogue here, as it is emerging as a novel way to explore second language use and learning in educational contexts and has particular implications for my own research.

Collaborative dialogue in the zone of proximal development

Swain (2000) has argued that second language acquisition has long been focused on "comprehensible input" (p. 98) as the key to second language learning. That is, "the hypothesis [is] that the cause of second language acquisition is input that is understood by the learner" (p. 98). A learner receives this comprehensible input when he or she interacts with an interlocutor or interlocutors and all engage in "negotiation" (Swain, 2000, p. 98) of meaning. However, Swain and others (e.g., van Lier, 2000) view interaction as not only a source of comprehensible input but also as an opportunity for learners to "output" (Swain, 2000, p. 99) or use the target language. Furthermore, Swain (2000) has argued for an expanded view of output that recognizes that "in 'saying', the speaker is cognitively engaged in making meaning.... 'Saying', however, produces an utterance that can now be responded to – by others or by the self" (p. 102). In a similar vein, Donato (1994) has referred to the input/output construct of second language learning as "the message model of communication" in which "the goal of conversational partners during a communicative event is the successful sending and receiving of linguistic tokens" (p. 34). Donato has suggested that research framed within this model "masks fundamentally important mechanisms of L2 [second language] development and... the social context is impoverished and undervalued as an arena for truly collaborative L2 acquisition" (p. 34).

Swain (2000) has described her expanded view of second language learning as moving beyond the output hypothesis and towards a notion of "collaborative dialogue" (p. 97). Collaborative dialogue is defined as:

. . . knowledge-building dialogue. In the case of our interests in second language learning, it is dialogue that constructs linguistic knowledge. It is what allows performance to outstrip competence. It is where language use and language learning can co-occur. It is language use mediating language learning. It is cognitive activity and it is social activity. (p. 97)

With regard to who is participating in collaborative dialogue, a number of scholars (e.g., Donato, 1994, 2000; Lantolf, 2000; Ohta,

2000; Swain, 2000; Swain & Lapkin, 1998, 2000) suggested that interactions for learning can occur between learners or peers in the ZPD and not just between a learner and an “expert”. The work of Swain and others (Donato, 1994; Swain, 2000; Swain & Lapkin, 1998) suggests that when language learners work together on a linguistic task aimed at problem-solving, they are able to “notice” (Swain, 2000, p. 99) or identify what they do not know. They are then able to construct linguistic knowledge and “their output, in the form of collaborative dialogue, is used to mediate their understanding and solutions” (p. 102). Furthermore, Vygotsky’s work suggests that learners’ collective understanding or behavior “may be transformed into individual mental resources. This means that the knowledge building [the learners] have collectively accomplished may become a tool for their further individual use of their second language” (p. 104). Clearly, a sociocultural theory of mind as viewed by Vygotsky and neo-Vygotskian scholars (e.g., Wertsch, Cole, Lantolf) can provide a theoretical framework for second language research that allows for an exploration of social interaction and its internalization as learning, all of which is mediated by language.

Conclusion

In Vygotsky’s work, the notion of not only the social origins of higher mental processes, but also of the key role played by cultural tools (e.g., language) in the development of these processes, both run deep. The interrelated nature of Vygotsky’s theories of thought and the emphasis he placed on language throughout mean that much of his work is relevant to those interested in language learning. For Vygotsky, language was of primary concern when it came to understanding cognitive development. As he stated in the first sentence of *Thought and Language* (1962):

The study of thought and language is one of the areas of psychology in which a clear understanding of interfunctional relations is particularly important. As long as we do not understand the interrelation of thought and word, we cannot answer, or even correctly pose, any of the more specific questions in this area. (p. 1)

In this article, I have provided an overview of some of Vygotsky’s key ideas and then elaborated on a selected few in order to present what I, and others, believe to be many of the essential understandings.

Vygotsky's work is not without its criticisms and it is beyond the scope of this article to discuss these at length. However, I will briefly raise some of the primary concerns that have been expressed with regard to Vygotsky's work. In terms of Vygotsky's views on culture, some have remarked that his perspective is Eurocentric. It has been suggested that Vygotsky, while greatly concerned with social forces, was interested in these more on a small scale (e.g., the intermental plane) than on a larger scale and thus may have ignored larger historical or economic forces. In addition, it has been noted that Vygotsky's claims about the existence of a "natural" development need to be strengthened (Wertsch, 1985, 1993; Wertsch & Tulviste, 1994). Despite any criticisms however, it is clear that Vygotsky has contributed substantial and important theories to developmental psychology, many of which relate strongly to, or at least have strongly influenced, the field of education and current research in the field of second language.

Vygotsky focused on language and its connection with thought and, for him, language, as the most important cultural tool, was a mediational means for cognitive development. In Vygotsky's view, language helped *form* thought and was not just a vehicle for expressing thought. Thus language was almost always at the forefront of Vygotsky's analyses (Beilin, 1994; Wertsch & Tulviste, 1994). As such, Vygotsky's work has important implications for researchers in the field of second language acquisition and second language education. New approaches to second language research have emerged that reflect an array of Vygotskian ideas. Swain's (2000) notion of collaborative dialogue is a useful way to explore the merits of engaging learners in collaborative work. Swain has suggested that collaborative dialogue is a way in which learners not only use their second language but also learn it. Learners co-construct knowledge and collectively achieve performance that can outweigh individual capabilities. This socially constructed knowledge may in turn become an internalized cognitive tool for the individual. As such, the insights gained from sociocultural approaches to second language research have important theoretical and pedagogical implications. Potentially, viewing second language learning through a sociocultural lens may dissolve, or at least lessen, the theory/practice binary and allow researchers and educators to view second language acquisition as a complex, integrated phenomenon.

References

- Auger, W. & Rich, S. (2007). *Curriculum theory and methods*. Mississauga, ON: John Wiley & Sons Canada, Inc.
- Beilin, H. (1994). Jean Piaget's enduring contribution to developmental psychology. In R. Parke, P. A. Ornstein, J. J. Rieser, & C. Zahn-Waxler (Eds.), *A century of developmental psychology* (pp. 257-290). Washington, DC: American Psychological Association.
- Cole, M. (1985). The zone of proximal development: Where culture and cognition create each other. In J. Wertsch (Ed.), *Culture, communication and cognition* (pp. 146-161). Cambridge, MA: Cambridge University Press.
- DeVries, R. (2000). Vygotsky, Piaget, and education: A reciprocal assimilation of theories and educational practices. *New Ideas in Psychology, 18*, 187-213.
- Donato, R. (1994). Collective scaffolding in second language learning. In Lantolf, J. P., & G. Appel (Eds.), *Vygotskian approaches to second language research* (pp. 33-56). Westport, CT: Ablex Publishing.
- Donato, R. (2000). Sociocultural contributions to understanding the foreign and second language classroom. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 27-50). Oxford, UK: Oxford University Press.
- Duncan, R. (1995). Piaget and Vygotsky revisited: Dialogue or assimilation? *Developmental Review, 15*, 458-472.
- Egan, K. (2002). *Getting it wrong from the beginning: Our progressive inheritance from Herbert Spencer, John Dewey, and Jean Piaget*. New Haven, CT: Yale University Press.
- Lake, R. (2012). *Vygotsky on education*. New York, NY: Peter Lang.
- Lantolf, J. P. (2000). Introducing sociocultural theory. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 1-26). Oxford, UK: Oxford University Press.
- Meece, J. (1997). *Child and adolescent development for educators*. New York, NY: The McGraw-Hill Companies, Inc.

- Merriam-Webster Dictionary Online (2011). <http://www.merriam-webster.com/dictionary/culture>.
- Ohta, A. S. (2000). Rethinking interaction in SLA: Developmentally appropriate assistance in the zone of proximal development and the acquisition of L2 grammar. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 51-78). Oxford, UK: Oxford University Press.
- Piaget, J. (1923/1959). *The language and thought of the child*. (3rd ed.). London, UK: Routledge & Kegan Paul Ltd.
- Shayer, M. (2003). Not just Piaget; not just Vygotsky, and certainly not Vygotsky as alternative to Piaget. *Learning and Instruction*, 13, 465-485.
- Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 97-114). Oxford, UK: Oxford University Press.
- Swain, M. (2011, November). *Cognitive and affective enhancement among older adults: The role of languaging*. Keynote paper presented at the Australian Association of Applied Linguistics, Canberra, Australia.
- Swain, M., & Lapkin, S. (1998). Interaction and second language learning: Two adolescent French immersion students working together. *The Modern Language Journal*, 82(3), 320-337.
- Swain, M., & Lapkin, S. (2000). Task-based second language learning: The uses of the first language. *Language Teaching Research*, 4(3), 251-274.
- van Lier, L. (2000). From input to affordance: Social-interactive learning from an ecological perspective. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 245-259). Oxford, UK: Oxford University Press.
- Vygotsky, L. (1962). *Thought and language*. Cambridge, MA: The Massachusetts Institute of Technology.
- Vygotsky, L. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.

- Wertsch, J. (1985). *Vygotsky and the social formation of mind*. Cambridge, MA: Harvard University Press.
- Wertsch, J. (1993). *Voices of the mind: A sociocultural approach to mediated action*. Cambridge, MA: Harvard University Press.
- Wertsch, J. & Tulviste, P. (1994). Lev Semyonovich Vygotsky and contemporary developmental psychology. In R. Parke, P. A. Ornstein, J. J. Rieser, & C. Zahn-Waxler (Eds.), *A century of developmental psychology* (pp. 333-354). Washington, DC: American Psychological Association.