A SOCIOCULTURAL APPROACH TO SECOND LANGUAGE

RESEARCH

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Educational research draws its influences from a broad range of fields, but I focus here on the works of one scholar of psychology, Lev Vygotsky, and discuss how his work (e.g., Vygotsky, 1978) and interpretations of his work by neo-Vygotskian scholars (e.g., Cole, 1985; Wertsch, 1993; Wertsch & Tulviste, 1994) provide the foundation for a sociocultural theory of mind. In the field of second language education, some researchers have used a sociocultural approach to explore various phenomena and such an approach might also inform my own research in the field.

Vygotsky's extensive works can be discussed by focusing on two main interrelated themes: "the social origins and social nature of higher (i.e., uniquely human) mental functioning and his uses of culture" (Wertsch & Tulviste, 1994, p. 334). Vygotsky defined higher mental functions as those that are unique to humans, and that are mediated by cultural tools such as language. Examples of higher mental functions include thinking, voluntary attention, and logical memory; these can be applied to social as well as individual forms of activity (Wertsch, 1993). However, in Vygotsky's work, emphasis is placed upon the processes occurring between people, while the resulting processes occurring within the individual are seen as derivative and develop once the social processes have been acquired and internalized (Wertsch & Tulviste, 1994).

An example of this internalization of social processes that relates strongly to education is what Vygotsky (1978) termed the "zone of proximal development" (p. 86), or ZPD. The ZPD is defined 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). Through collaboration, the learner gradually takes increasing responsibility for the learning situation until eventually he or she is able to manage the task independently (Cole, 1985). As Swain (2011, November) recently explained, the changes that occur within the individual in the ZPD represent "the movement from other- to self-regulation."

Vygotsky understood culture, the second main theme in his work, "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" (p. 341). Examples of these cultural tools include "language [emphasis added]; various systems for counting; mnemonic techniques; algebraic symbol systems; works of art; writing" and more (Vygotsky as cited in

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Wertsch & Tulviste, 1994, p. 342). The use of these tools, particularly language, *transforms* the higher mental functioning itself (Wertsch & Tulviste, 1994). As Swain (2011, November) explained, "language helps form thought, it is not just a conveyor of thought." The social nature of thought and learning and the primary role that cultural tools, especially language, play within them form foundational components of Vygotsky's sociocultural theory.

A number of leading scholars in the field of second language education have used a sociocultural approach to research. Within this framework, aspects of a second language, such as vocabulary or grammatical structures, are explored first socially, or between learners, and are subsequently internalized by the individual. This research expands on the notion of Vygotsky's ZPD to include "peer interaction where there is not a clear 'expert'. Studies of peer interaction in a foreign language have found that differential competence among peers allows a ZPD to emerge" (Ohta, 2000, p. 55). Language first used and learned socially, for example among learners working together on a language task, becomes a cognitive tool for the individual learner.

My own research interests include a focus on second language learning, with particular interest in episodes of first language use, in French immersion mathematics. As such, Swain and Lapkin's work (e.g., 1998, 2000) is particularly meaningful for me since it is based in the French immersion context and explores students' first language use. In two different studies, Swain and Lapkin explored the occurrence of "language-related episodes" (Swain & Lapkin, 1998, p. 326) and the use of the first language while pairs of immersion students were engaged in task-based learning in a French second language classroom. Swain and Lapkin's (2000) research suggests that "collaborative dialogue" (p. 254), in which students are engaged in problem-solving, mediates second language learning. During collaborative dialogue, whether in the first or second language, "students engage in co-constructing their L2 [second language] and in building knowledge about it. From their collective behavior, individual mental resources can develop" (p. 254). This research suggests that French immersion students use both their first and second languages not only as means of communication but also as cognitive tools. According to Swain (2000), a key characteristic of collaborative dialogue is that learners approach second language tasks from a problem-solving orientation. With regard to my own research interests, I propose that second language tasks based in mathematical problem-solving would fit well within such an orientation. Furthermore, as Swain has pointed out, research has suggested that "language has been shown to mediate the learning of conceptual content" (p. 104) in domains such as science and mathematics. As such, exploring learners' collaborative dialogue may be a way to explore not only how their language use contributes to (or co-occurs with) their second language learning but also to their learning of mathematical content.

According to Vygotsky, in order to understand cognitive development one must understand that it is grounded in social origins. The social origins of individual mental processes and the role played by cultural tools in the development of these processes, are key to Vygotsky's work. Due to the interrelated nature of Vygotsky's theories, and because he views language as the most important cultural tool, it is difficult to find a part of Vygotsky's work that does not relate to language learning in some way. Like the work of most other notable scholars, Vygotsky's is not without its

criticisms and it is beyond the scope of this paper to discuss these at length. Despite any criticisms however, Vygotsky's works clearly provide educators and researchers with valuable and important theories to consider, which can contribute to, and form the underpinnings of, our understanding as we move forward.

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Biography

Karla Culligan is a full-time doctoral student in the Faculty of Education at the University of New Brunswick. Her current research interests include French immersion and mathematics education, and code-switching practices. Karla is currently the Managing/Associate Editor of the *Canadian Journal of Applied Linguistics* and is part of the Second Language Research Institute of Canada (L₂RIC) team contributing to ongoing research and teaching projects.