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A cultural-historical perspective on Digital Language Learning

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Peer Commentaries

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Li and Lan's (2021) rich and informative article presents us with much to think about and comment on. Unfortunately, my remarks must be limited to two topics. The first relates to the assumption that "traditional" language classrooms are "decontextualized" (i.e., non-social) settings. It is hard to envision any human situation that is non-social. Someone sitting "alone" reading a book, or perched on a mountain top contemplating life is engaged in social acts. In reading books, we dialogically engage with authors, albeit displaced in time and space. The contemplative scenario is social, because thinking, which results from the internalization of culturally created symbolic tools (e.g., language, numbers, symbols, gesture, etc.), is always "quasi-social" (Vygotsky, 1986, p. 59). A classroom is a social space with the individuals assigned particular roles and rules for acting (see Bakhurst, 2006). I would venture to say that most language classrooms today are not sites where pedagogical practice entails grammar translation. This is important for DLL research to appreciate because in the VR studies I have read on lexical learning cited in Li and Lan, comparison is between innovative VR treatment and rote learning treatment that supposedly occurs in traditional classrooms.

Li and Lan make a case for learner-centered rather than teacher-centered L2 learning. This is a proposal originating at least as far back as the nineteenth-century philosopher and scientist Herbert Spencer that was passed down through Dewey and Piaget to contemporary educational practice. The assumption underlying leaner-centered pedagogy is that educational practice would be successful if it mimicked how children learn in spontaneous natural settings (Egan, 2002). In Spencer's view given that children in natural contexts seem to learn effortlessly teachers must allow for the same kind of learning to occur in schools. Indeed, according to Piaget, teachers should function as guides that facilitate autonomous student learning (Egan, 2002, p. 106), especially since explicit instruction is assumed to be of little value until a student is developmentally ready to learn, a position strongly challenged by Vygotsky (1987). According to Li and Lan, language learners will be more successful if they are immersed in "authentic" virtual reality environments that parallel the real learning environments which promote child L1 learning. Indeed, he even argues that through VR experiences L2 learners "can fend off the 'risk factors' such as thinking in L1 (as opposed to using L2 for inner speech) and social isolation (as opposed to integrating socially and culturally with the L2 community)." Related to this, is an even stronger claim that social L2 learning (presumably in the real or virtual world) "provides a way for adult L2 learners to decouple the L2-to-L1 link that would otherwise be characteristic of later age acquisition," which Li refers to as "parasitic representation."

Two issues need to be broached with regard to VR immersion learning. One is whether or not for adults it is a superior learning environment when compared to appropriately organized classroom settings and if immersion learning, real or virtual, does mitigate thinking through a learner's L1. According to CHT, schools are particularly important developmental environments where students are provided access to knowledges that is not readily available in everyday contexts and where focus is neither on the teacher nor on the learner but on the dialectical activity of teaching-learning as a process whereby teachers organize knowledge resulting from rigorous analysis of the object of study – "scientific" knowledge (Vygotsky, 1987) – in pedagogically effective formats that make understandable, internalizable and useful in practical activity (see Lantolf & Poehner, 2014). Regarding language learning, this entails complex features that would otherwise be difficult for adult learners to master even with thousands of hours of social exposure (e.g., English articles, Spanish verbal aspect and mood, Chinese word order, and Korean second-person pronouns). A close relation, raised as an L1 German speaker, has lived the majority of her life as an English-speaking environment, earning a graduate degree and working in American academia; yet she continues to have problems distinguishing English word-final voiced ~ voiceless stops (send ~ sent) and often prefers present perfect verbs (typical of German) where English prefers simple preterit forms (Last week, he has bought a new car).

As for the L1 risk, within the CHT framework L1 is the most pervasive and powerful psychological tool that human cultures have developed. It is not merely a means of "I ~ You" dialogue, but it functions as a psychological "I ~ Me" private dialogue for mediating thinking. Thus, trying to avoid the psychological function of the L1 in the learning process hinders rather than enhances the process (see McManus, in press). Whether or not one is even able

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to use an L2 as a psychological tool for thinking remains an open question. Research by Centeno-Cortés and Jiménez-Jiménez (2004) found that while advanced Spanish L2 speakers, with immersion experience, were able to produce private speech in Spanish to accomplish simple cognitive tasks, the language they produced was not the equivalent to what L1 Spanish speakers produced. Moreover, when solving complex tasks, they had to switch to English private speech.

The brain-mapping research is especially interesting as it continues the early work of Vygotsky and Luria; unfortunately, I forgo commentary on this topic.

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