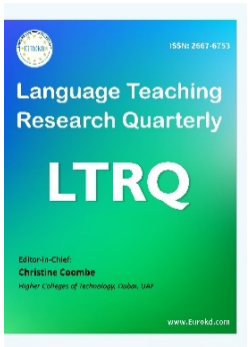

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Lantolf, Vygotsky, and Learning through and about Languages

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Abstract

In this essay I reflect on James P. Lantolf's contributions to cultural-historical theory and second language learning. I begin with my personal subjectivity and experiences as a limited learner of additional languages beyond English. This anecdotal opening introduces the tension between formal learning in school and everyday immersion in a language system. I conclude that each is important, and that together they produce robust learning. I then review the terms of the immersion-vs-instruction approaches to learning additional languages, here with greater attention to theoretical points than my anecdotes provide. I next digress with attention to translanguaging, which calls into question the notion that there is necessarily an L1 to which other languages may be added. I then review the Marx-Hegel notion of dialectical thinking, central to Vygotsky's thinking and informative in understanding language learning and cultural experiences. I finally review a troubling problem in educational writing, the tendency to trivialize complex concepts, focusing on how the Zone of Proximal Development has become conflated with instructional scaffolding. I conclude with brief thoughts about Lantolf's contributions and how they have both been inspired by other people's thinking, and in turn have enriched the understandings of those who engage with his scholarship.

Keywords: *Lantolf, Vygotsky, Second Language Learning, Dialectics, Next Zone of Development*

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[1]Introduction

As I began writing this essay in March, 2024, I looked up Jim Lantolf's citation record. In part I wanted to check the extent of his referencing; in part I planned to select some articles to read

[1] This paper is part of a special issue (2024, 46) entitled: In Honour of James P. Lantolf's Contributions to Sociocultural Theory, Second Language Development and Language Pedagogy (edited by Mirosław Pawlak, Zhisheng (Edward) Wen, and Hassan Mohebbi).

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in preparation of writing about his remarkable career. What I found was extraordinary: His publications have been referenced about 35,500 times (no doubt greater by the day). That is some rarified air, where only the highest of fliers soar.

Lantolf's primary field of second language learning, especially English, is grounded in linguistics and cultural-historical psychology. Jim and I share an interest in language learning and cultural-historical theory, yet our specific focuses are different. My own experience as an English teacher comes in a different discipline. What we call "English" in the U.S. is the K-12 school-based discipline that has historically included three strands: literature and textuality, writing and composition, and language understanding and expression. I will refer to this field hereafter as English Language Arts. This K-12 nomenclature is not shared in university Departments of English, where literature and composition are separate fields and where language study for grammar, usage, mechanics, and so on is confined, when taught at all, to a course isolated from literary reading and writing. Most nations with formal schooling have a course in their national language and literature, calling it by the name of the language or the nation: Dutch, German, etc. Although international readers might associate being an English Language Arts teacher with TESOL and related fields, in the U.S. the subject serves students learning about the textual culture of their own heritage. I spent over a decade as a high school English Language Arts teacher, and have since been involved in English Language Arts teacher education in universities. I have never been a university professor in a Department of English, and my knowledge of the field of second language teaching and learning is slim.

The main overlap between our fields is in the area of grammar, which is taught in each. In English Language Arts classrooms, teaching grammar has historically been a fruitless exercise, especially when grammar is taught as a subject in and of itself rather than in conjunction with writing and speaking situationally (Graham & Perin, 2007; Hillocks, 1986). And so even with overlap of an area that has frustrated many teachers and students in my own field of English Language Arts, the two fields are quite different in orientation.

Where we overlap is in our interest in, and exposition of, a field of psychology (and more) that goes by many names, including the current preferred name held by both Lantolf and me: cultural-historical theory (a.k.a. sociocultural theory and other descriptors). The term refers to the approach to human psychological development credited to Belarusian theorist and practitioner Lev S. Vygotsky. Vygotsky articulated this comprehensive conception of long-term human development in his very brief career, which began with the doctoral dissertation on *The Psychology of Art* (1971) that he began in his late teens and extended through his death at age 37 of tuberculosis. His early death left an incomplete, if compelling and substantial, body of work. Dying young was not the only tragic event of his life and career. Although he entered the scene in his mid-twenties as a dynamic new darling of Soviet psychology, a decade later he was purged in the 1930s by the Pedology Decree, one of many Stalinist moves to eliminate any idea that did not meet his standard for compliance with his doctrinaire interpretation of Marx and any threat to his power.

Lantolf and I, then, are both concerned with education in English, but of different sorts. I next provide a personal account of some of my experiences as a learner of an additional language, in hopes of laying the groundwork for the more theoretical argument that follows.

Learning New Languages: A Personal Account

In my own schooling I took French several times, including my first year of college; and Spanish during high school. I now can speak neither language beyond phrase-book expressions, even though I eventually, on my third attempt, passed the French exam required for my doctoral studies. For that test we had to translate French social science scholarship into idiomatically-correct English, under the assumption that our careers would require this skill in our own reading of French thinkers. I never did read any in French, relying instead on translations. Shortly after I passed the exam, I watched a French film. Thank heaven for subtitles, or I wouldn't have known Gérard Depardieu from Pepé Le Pew.

I also took Latin in eighth grade, but I can't find the tourists' phrase book, so am out of luck. Latin was entirely a matter of memorizing vocabulary words, proper subject-verb combinations, and other essentials. In contrast, in school I learned French and Spanish through the Audio-Lingual Method (ALM), which also relied on memorization, but of dialogues from the textbook. I can still recite them well over a half-century later: "Bonjour Jacques, comment vas tu?" "Pas mal, merci. Et toi?" "Très bien, merci." Mercy. The French and Spanish ALM lessons used the exact same dialogues, except in different languages. If I ever run into someone looking for the library, I will be able to tell them where it is in either language, or at least where it was in my old ALM dialogues.

The ALM, or "Army Method," according to Wikipedia, was developed initially to provide soldiers with some language basics in case they needed to *ir al baño* or *trouver du vin*. It "is a method used in teaching foreign languages. It is based on behaviorist theory, which postulates that certain traits of living things, and in this case humans, could be trained through a system of reinforcement. The correct use of a trait would receive positive feedback while incorrect use of that trait would receive negative feedback." ALM is also considered by its proponents to be a "natural" way to learn a language because it is conducted only in the target language, and because it relies on learning everyday expressions in order to learn the language. Presumably we could extrapolate from knowing how to ask Etienne how to get to the library to asking Antoinette how to get to the train station. And if we took both ALM French and Spanish, we could say the same thing in each, although not much else.

I've also had somewhat of an immersion experience with Spanish through my work at the Universidad de Guadalajara in Jalisco, Mexico, a nation in which 69 languages are recognized and roughly 300 are still spoken after centuries of colonization (Schmal, n.d.), with Spanish culture still dominant even after the expulsion of Spanish rule a few centuries ago. Along with attempting to speak Spanish with my Mexican colleagues, airport personnel, and various merchants, I've tried semi-formal learning through Duo Lingo lessons where my teachers have been animated cartoon characters speaking with exaggerated accents. In this medium I successfully read words and short sentences in Spanish, but struggled with generating my own sentences in Spanish and with remembering irregular verb forms, possibly due to age-related memory failures but indicative of the difficulties people have in learning English.

To illustrate the limits of the immersion approach, even supplemented by instruction from Duo Lingo and backed by my limited school learning in Spanish during my teens: I was able to adapt an ALM dialogue that I had memorized over 50 years before when I wanted to find a theater in Guadalajara. Actually I wanted to know the location of a *cantina* near the theater; you might find it amusing that I originally typed *cochina* instead of *cantina*, meaning filthy

swine instead of restaurant serving alcohol. Anyhow, to locate the theater and thus my dinner destination, I asked some workers on the street, "*¿Donde esta el teatro?*" Unfortunately, I'm a good mimic, and so they must have thought I could speak Spanish fluently, and they launched into a Spanish-only, *muy rapido* response that I couldn't understand a word of. Apparently, they had not read the ALM dialogue, and their response flew way over my head.

I did eventually find the restaurant, however. Perhaps I just followed my nose.

Immersion and Formal Instruction

My experiences as a language learner indicate that positioning learning a language as either an immersive experience or a formal way of learning a new way of speaking presents a binary way of presenting what may best be understood as a hybrid experience. As my colleague David Reinking, who has extensive experience with study-abroad programs in Italy, noted when I discussed this possibility with him, perhaps that is why formal learning of a foreign language may be reinforced by a residency abroad, through which a visitor may benefit from the social, cultural, and personal enrichment available from connecting authentically with native speakers from another land and its history. A great limitation of study abroad opportunities is that they are largely available to those who can afford them, making this a possibility of less-than-universal potential.

Lantolf et al. (2021) contest the belief in an immersion-only approach in their critique of fellow ESL scholar and linguist Stephen Krashen (1981, and many more), whose publications have amassed the astounding number of over 95,000 citations, dwarfing even Lantolf's extraordinary total, and suggesting that I really need to up my game. Lantolf et al. say that

> Krashen's (Krashen & Terrell, 2000) assertions about the value of comprehensible input for language acquisition and his admonishments against explicit instruction are also predicated on the "natural child" orientation and on the subsequent assumptions that for adults to be effective language learners they must adhere to the same procedures that children follow, despite the fact that adults have different kinds of minds from children and can learn in ways that are at variance with the primary way children learn (see Paradis, 2009; Arievitch, 2017). Vygotsky vigorously opposed replicating natural ways of learning in the educational environment and asserted that if school development replicated everyday development it would be an unnecessary activity. The point of education is to build on, and eventually restructure through access to scientific [i.e., formal academic] knowledge, what we learn through everyday spontaneous experiences.

Although Vygotsky did not offer a specific blueprint for how to promote educational development, he was quite clear that educational practice must provide an experience that is different from the developmental experiences of everyday life. Accordingly, he argued that formal education entails the "artificial development" of the individual (Vygotsky, 1997[a], p. 88). By artificial he did not mean "fake" or "unreal", but planned and systematic access to rigorously formulated knowledge that "restructures all functions of behavior in a most essential manner" (p. 88). For Vygotsky, education is a dialectical process captured

in the Russian term *obuchenie* "teaching-learning" (Cole, 2009), in which instruction opens the way for, and promotes, development instead of waiting for learners to somehow become developmentally receptive to instruction as proposed by Piaget. (p. 328)

Now, simply resorting to "Vygotsky says…." to win an argument can be problematic; I have detailed limitations to his ideas of a century ago (e.g., Smagorinsky, 2024) while generally embracing his developmental theory. I don't consider his writing to have settled all matters before his death at age 37, which was my age when I finished my doctorate and hadn't even begun to read cultural-historical theory, instead having been immersed during graduate school in information processing theory and its in-the-head view of cognition. But here, I think he's right. If school is no different from not-school, what is the point of going there to learn? Further, *obuchenie* is a term featured by Cole (2007) in his exegesis on the difficulties of translating Russian terms and concepts cleanly into English and the conceptual misunderstandings that might follow from misinterpretations across cultures.

But back to my story. Lantolf is himself an applied linguist, not the sort of linguist who studies language as an abstract system independent of everyday speech. That orientation leads him to try to understand how people use language in their engagements with others. At the same time, he is concerned with formal instruction in English for speakers of other languages. Inevitably, then, he is a hybrid thinker who rejects the dichotomous immersion-vs-instruction debate in language learning, finding value in each, and finding greater value in synthesizing them for greater fluency. Undoubtedly each case is situational, dependent on the learner's characteristics and socialization, the specific topic under study in relation to the learner's interests, how learners adapt to different modes of learning and instruction, what sorts of opportunities people have for practice, and related factors (D. Yaden, personal communication, March 10, 2024). If Vygotsky (1987) is right that the most sturdy concepts follow from the interchange of "spontaneous" (i.e., everyday immersion in life) and "scientific" (i.e., formal learning in school) concepts, then this view of the insufficiency of either alone has powerful implications for learning a new language, along with learning most other things.

I will next file a brief disagreement with Lantolf about what he refers to as L1 (or home or first or mother tongue language), and then return to the question of the dialectical nature of engaging theory with practice, of engaging abstract and practical knowledge. His disagreement with Krashen provides a good illustration of how dialectical thinking—the quest for the unity of opposites through the synthesis available from engaging a thesis with an antithesis—may benefit concept development, the end game for Vygotsky in his outline of human development.

Translanguaging

Lantolf, like many concerned with teaching English as an additional language to a base national language, considers a person's first language—known as L1—to have primacy in how people think and express themselves, with other languages added to this foundation of terms and linguistic features, if not necessarily their everyday, unspoken thinking. As a person largely marinated in a monolinguistic nation, I began from the same assumption. I was, and remain, characteristic of an old joke: "People who speak three languages are known as trilingual. Those who speak two languages are considered to be bilingual. A person who can speak a single language is called an American." Of course, then, I consider English to be my L1 and, if I ever

learn another language well enough to speak it fluently, I would have an L2. To Lantolf (2022), "As for the L1 risk, within the CHT [cultural-historical theory] 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" (p. 390).

My experiences with international students and travel to nations like Mexico where many people are equally fluent in multiple tongues, however, has led me to the notion of *translanguaging* (García & Wei, 2014; Lewis et al., 2012). This construct refers to the manner in which multiple languages may be in play simultaneously and without clear distinction. In ESL and related fields, this term is largely used in formal second language education. What I had yet to learn was how translanguaging applies in the everyday speech of people when there is no clear L1. That lesson was impressed on me when I went to South Africa, a nation where the people speak 11 official languages plus South African Sign Language, along with at least 35 other languages not officially recognized. And then there's Cameroon, a relatively small nation that is home to at least 250 languages, with estimates as high as 600. In Sub-Saharan Africa, most people speak several, or perhaps many of the available languages, none of them considered primary in a person's speech. Rather, they are used situationally, often in a linguistic mesh of different languages.

A driver I rode with seemed to speak a different language with everyone he met, or perhaps several with each; I had no idea of what they were saying. When I asked him how many languages he spoke, he replied, "Six. Plus English." Fortunately, just as he might shift to Zulu or Ndebele with a South African, he easily shifted to English with me, and got me to my destination with the help of directions provided speakers of multiple languages, perhaps using all in one utterance—I am simply too ignorant to know when the shifts occurred.

In this sense, translanguaging does not just refer to learning additional languages to one's L1 in school. Rather, it characterizes the everyday speech of people living largely outside the L1 tradition often assumed to emerge from Europe (Noske, 2016) when they switch, mesh, and hybridize languages to meet situational needs. In Europe there are nations in which multiple languages may be in play; the term translanguaging was proposed in Wales for students who interchangeably spoke (and presumably thought) in English and Welsch (Williams, 1994). Some European nations have no national language of their own (e.g., Belgium, Switzerland), borrowing languages from neighboring nations such that Southern Belgians may speak French and Northern Belgians may speak a version of Dutch or Flemish, with a small segment of the population speaking German following the annexation of land after World War II (Vanthemsche & DePeuter, 2023). Yet typically one predominates, rather than producing a linguistic stew.

While in South Africa, I was able to spend a good bit of time with one of South Africa's leading translanguaging authorities, Leketi Makalela (Makalela, 2015a, 2015b, 2016, 2022, and others). He helped me understand the phenomenon in a nation like South Africa where, as in many African nations, most people are multilingual, and cultural group affiliations[2] and

[2] I am avoiding the term "tribe," a word often associated with colonialism and stereotypical thinking: "In English, writers often refer to the Zulu tribe, whereas in Zulu the word for the Zulu as a group is *isizwe*. Zulu linguists translate isizwe as 'nation' or 'people.' Isizwe refers both to the multi-ethnic South African nation and to ethno-national peoples that form a part of the multi-ethnic nation" (Lowe, 2001, n.p.).

listeners' needs more than the national context suggest how to speak. Makalela makes many excellent points through his articulation of translanguaging, one of which I'd like to emphasize here. He distinguishes between one's I-languages and ex-languages. The I-language might correspond to what Vygotsky has called inner speech, the language and associated concepts that people appropriate from their surroundings and use when thinking. The ex-language refers to how a speaker engages with others in social contexts. The ex-language, or "outside" language, is situational and dependent on how others speak and listen. The I-language in contrast may be a complex mix of elements from several languages (Makalela, personal communication, September 10, 2018).

For those of us who grow up with an L1 based on our national or familial orientation, it can be hard to grasp how our heads might be filled with swirling linguistic blends. As an L1 speaker of English, I might think to myself "Sacré bleu!" or "Scheisse" or "¿Qué pasa?" Yet I am at best patching in foreign phrases to my English-language thoughts. That's not quite translanguaging, which would involve the meshing of different languages with which I have fluency, with no effort to position them hierarchically or even be conscious that my thoughts are being expressed in what someone else would call different languages.

Translanguaging thus complicates the notion of L1 once someone enters social situations where there is no dominant or primary language, either for the public or for individual people. Perhaps it doesn't matter in ESL, TESOL, or other school-based learning where a national language (or two, such as Mandarin and Cantonese in different parts of China) is dominant, and people learn other national languages to meet needs, such as the belief that English is the preferred language of commerce (Alneyadi et al., 2023) and the *de facto lingua franca* for global communication (Salomone, 2021). I do believe, however, that decolonizing our thinking broadens our ability to appreciate the greater world and its complications. I find translanguaging to be a useful way of recognizing how my own socialization has limited my understanding of how the greater world works, and how I may be a more respectful citizen of both my own land and those I visit by understanding cultural phenomena. These factors might not matter if the plan is to teach or learn English in a class with students for whom English is a decidedly foreign language, as in ESL, ESOL, TESOL, and related fields. If, however, the globe is the territory of interest, it behooves us to include places where the notion of a single national language is not a factor, where there is no "European concept of nation building as 'one country, one culture, one language'" (Noske, 2016, n.p.).

The Importance of Dialectics

An applied linguist like Lantolf does not separate theory from practice, abstract systems from informal usage. Rather, they function together to produce a robust way of thinking and speaking. To formulate how this hybrid way of thinking develops, he relies on the notion of dialectics, a Hegelian-Marxist concept that assumes that the world is always in flux through the engagement of competing ideas. Vygotsky (1987, 1993, 1997a, 1997b) drew heavily on dialectics in his effort to chart the path of human development, with obstacles being critical to overcome in order for growth to proceed (Vygotsky, 1997b). These obstacles may be generative when not too onerous—obstacles can prohibit growth when too forbidding—requiring one to engage with an opposing belief or physical barrier as a way to reconstruct prior beliefs into a more mature understanding. To Lantolf and Poehner (2023), dialectics

> assumes not only that reality is constantly in flux but also, crucially, that there are inherent interconnections among the objects and processes at work in reality. The interconnections entail what appear to be "internal contradictions"; yet these contradictions are the driving force of development and change. Development, in the dialectical view, is not a smooth accumulative process; rather, it is necessarily comprised of "zigzags, returns and loops" (Dafermos, 2018, p. 7). Consequently, dialectical research does not search for the elementary components of material reality, instead it seeks to discover the unities that operate in reality. (p. 6)

These zigzag, returns, and loops are characteristic of what Vygotsky (1987) called the *twisting path of concept development* (cf. Smagorinsky et al., 2003), one that does not proceed in a straight, uninterrupted line but that must engage with impediments that require re-navigation, false leads, reorientations, and other detours from the straight and narrow path. Lantolf and Poehner (2023) reference Vygotsky's (1997b) account of dialectical materialism to drive home their point that theory and practice are related rather than hierarchical and independent. Vygotsky wrote that

> Practice was the colony of theory, dependent in all its aspects on the metropolis. Theory was in no way dependent on practice. Practice was the conclusion, the application, an excursion beyond the boundaries of science, an operation which lay outside science and came after science, which began after the scientific operation was considered completed. Success or failure had practically no effect on the fate of the theory. Now the situation is the opposite. Practice pervades the deepest foundations of the scientific operation and reforms it from beginning to end. Practice sets the tasks and serves as the supreme judge of theory, as its truth criterion. It dictates how to construct the concepts and how to formulate the laws. ([Vygotsky, 1997b], pp. 305–306) (cited in Lantolf & Poehner, p. 14)

Spoken like applied linguists. They account for this relation through the concept of *obuchenie*, arguing that Vygotsky's emphasis on the engagement of everyday and school learning led him to the dialectical insight on the importance of learning and development:

> *Obuchenie* refers to the unity of instruction and development, whereby, contrary to Piaget, instruction does not wait for students to be developmentally ready to learn; rather, instruction, if properly conducted, promotes development. Indeed, Vygotsky (1997a) considered education to be the "artificial development" of students which "not only influences certain processes of development, but restructures all functions of behavior in a most essential manner" (p. 88). Education is artificial because as an explicit form of mediation (as opposed to implicit mediation that occurs in everyday life), it intentionally introduces signs into an activity for which the signs are "designed by an external agent" (e.g., a teacher; Wertsch, 2007, p. 185). (p. 14)

Vygotsky's use of dialectical thinking explicitly draws on Marx and Hegel, but his ultimate ostracism in Soviet psychology followed from the officials' belief that he was insufficiently devoted to working class interests, among other problems emerging from his broad, internationally-informed thinking rather than the expected Leninist and Stalinist orthodoxies (reviewed in Smagorinsky, 2024). His reliance on dialectical thinking appears congenial to Marx's and Hegel's prior formulation, however, and so may properly be termed part of a Marxist theoretical apparatus.

Scaffolding and Zones of Development

Lantolf has provided a compelling argument for deconflating two constructs that have troubled many writers on education. The first is the *zona blizhayshevo razvitiya*, commonly translated (but, I argue, deceptively) as the Zone of Proximal Development. The second is instructional scaffolding (see Smagorinsky, 2018a). The ZPD is undoubtedly Vygotsky's most famous construct, even as it has appeared on only a few pages of his vast *oeuvre*. Instructional scaffolding came from the study of children's tutorials by Bruner and colleagues (Wood et al., 1976) and is widely considered to be a pedagogical adaptation of the ZPD, with Vygotsky himself often erroneously credited with offering instructional scaffolding both as a term and as a classroom practice. Yet, as argued by Xi and Lantolf (2021), the ZPD and scaffolding

> are not synonymous and equating them substantially undermines the significance and scope of the ZPD within Vygotsky's general theory of psychology. Moreover, as we will argue, the ZPD serves a dual function in Vygotsky's approach to psychology: as a theoretical concept through which higher mental functioning develops from the social environment, and as the foundation of his research methodology rooted in Marx's historical dialectic. (p. 26)

Xi and Lantolf (2021) do not position the ZPD as the foundation for pedagogy. Indeed, they note that the ZPD and scaffolding metaphors emerge from very different fields:

> [T]he two concepts are predicated on very different metaphors. Scaffolding is derived from an *architectural* metaphor in which literal scaffolds support the workers as they construct a predetermined edifice. The ZPD, on the other hand, is grounded in an *agricultural* metaphor in which the buds and flowers of fruitbearing trees mature as they are tended by growers. The quality of the fruit that eventually emerges depends on the nature and quality of the care they receive at critical points in the maturation process—an event that is difficult, if not impossible, to capture through the scaffolding metaphor. (p. 26; emphasis added)

In my own work I have made a similar criticism, making the case that the agricultural metaphor of buds and blooms is a long developmental process. In contrast, scaffolding tends to refer to short-term learning. Yet Vygotsky's (1978) reference to independent performance "tomorrow" is designed to point toward the future, not the day after today (Smagorinsky,

2018a, 2024). Scaffolding's immediate instructional payoff thus runs contrary to the developmental emphasis of Vygotsky's research program. Vygotsky's (1997b) pedagogical writing is very general and downright romantic, with all young people avid learners, cooperative with other people, and compliant with the instruction; and all teachers having preternatural patience and a frame of mind to cultivate growth over time without imposing goals or performance demands on children and youth. His attention to schooling is on its broad developmental potential, and his account of what happens in school is deeply idealized. The intent of schooling is to develop students toward Soviet values. There's nothing to suggest attention to the daily planning book.

All of Vygotsky's instructional attention comes in service of promoting the "science of the child" (a.k.a. pedology) as a comprehensive way of understanding human development, one that takes into account any imaginable influence on socially-mediated maturation. His educational ideas are designed to foster cultural growth in the long run, not to use rigid scaffolds to support the construction of a rigid building. It's very much an organic process aimed at the development of a national citizen, which in Vygotsky's case, meant evolving a nation of good Soviet people. This goal was utterly shattered by the purges that Stalin imposed on his people to bring them into compliance with his imposition of his power, including the Pedology Decree that effectively and savagely ended Vygotsky's work in promoting the broad-based "science of the child" to inform educational thinking (Van der Veer, 2002; Smagorinsky, 2024).

Like Lantolf, I was initially seduced by the conflation of the ZPD and scaffolding, only to recognize that Vygotsky's cultural-historical theory was all about lifelong, socially-mediated human development and not daily lesson planning or incremental learning. That realization led me to abandon scaffolding as a Vygotskian conception. Over time, I began to wonder what the fuss about the ZPD was. Of what value was it if it didn't do what educators kept saying it did: serve as a way to structure lessons to help kids learn how to do things on their own?

Plenty, it turns out. Especially if you tweak the translation so that it has a more developmental emphasis.

The Next Zone of Development

I was fortunate to learn about a film that provided a simple but important shift to the translation of what has almost exclusively been called the Zone of Proximal Development. My interest in Vygotsky's defectology (Smagorinsky, 2012, 2016; Vygotsky, 1993) led me to watch the BBC (1990) documentary *The Butterflies of Zagorsk* (Zagorsk was a city near Moscow, now called Sergiev Posad). The grainy version of the film provided by Michael Cole's Laboratory of Comparative Human Cognition features a school devoted to the education of blind and deaf children (the titular "butterflies"), in which they learn how to communicate by rapidly spelling words on one another's hands. This remarkable achievement requires a long and laborious process that begins with alphabetic knowledge and proceeds to recreating letters that are conveyed through touch rather than sight. Producer Michael Dean's narration refers to the instruction as taking place within the *Zone of Next Development*. This phrasing, unlike the ambiguous Zone of Proximal Development, emphasizes long-term development, not classroom lesson planning. I relied on this translation for the writing I did after watching this program.

More recently, Kellogg and Veresov (2019) have improved on this translation. They provide another shift, calling it the *Next Zone of Development* because

> the meaning of the Zone of Proximal Development cannot be derived, as has too often been done in educational research, from the constituent parts: "zone" does not refer to a level but rather to the relationship between two different pedologically defined levels; "proximity" must be measured in developmental years rather than in calendar or "passport" years[3]; and "development" is never reducible to learning to do some task without some outside help. . . . something we often see in educational research: the ZPD becomes little more than the belief that the child will learn to do alone whatever he or she is able to do with assistance (something that is both trivial and manifestly untrue of many important interactional skills such as conversation). (pp. vii-viii; p. 2)

Kellogg and Veresov (2019) argue that Vygotsky's cultural-historical theory does not allow for the reduction of a great developmental psychology to a classroom planning practice. The developmental emphasis means that

> Vygotsky's zones of proximal development are not age periods themselves: they are the zones that link and separate the age periods—the zones of potential or possible development for a given child or a group of children and for a given social situation of development. This zone between age periods is likewise measured in years (and this is another detail which often escapes those who have tried to use the ZPD in educational work), but these years are likewise not "passport" years but developmental years. (pp. 153)

The Next Zone of Development is consistent with Vygotsky's developmental theory. It refers to developmental periods that are mediated by the social environment as a whole. Vygotsky was a pedologist, not a pedagogue. As the "science of the child," pedology sought to investigate virtually any possible factor that influenced child and adolescent development. Scaffolding, as described by Bruner and colleagues (Wood et al., 1976), in contrast, is a metaphor that describes short-term teaching and learning in which a teacher's top-down instruction in a strategy is taken up by students to learn a new skill or procedure to be applied soon after being modeled and practiced.

Vygotsky himself only used a scaffolding metaphor once, employing it to describe how toddlers use furniture for support when first learning to walk (Vygotsky & Luria, 1993, p. 202; reported in Van der Veer & Valsiner, 1991, p. 226). In this usage, the furniture is not deliberately arranged to promote walking, but rather is a found object in the toddler's navigation of a room and efforts to stand upright on two legs. Those who credit Vygotsky with Wood et al.'s (1976) account of instructional support have not read Vygotsky in much detail, or at all. I suspect that most educators who reference *Mind in Society* for scaffolding are going

[3] Passport years refer to calendar years, and thus a person's age. A passport was required of Soviet citizens for purposes of identification.

entirely from secondary sources, and that those sources are written by people who also haven't read the translations in much detail, or at all.

I am not criticizing teaching and teachers who scaffold students' learning to promote their independent performances. Teachers who help students learn skills and knowledge that enable them to act effectively on their own are promoting metacognition—i.e., learning to learn (Brown, 1978)—and so are helping them develop procedures and ways of learning them that will serve them with those skills well beyond the bounds of the instruction. I have relied on such instruction in all of my pedagogical writing (e.g., Smagorinsky, 2018b; Smagorinsky et al., 2010). Effective scaffolding is good teaching. I just don't find it to be Vygotskian.

Vygotsky's (1978) notion of the *zona blizhayshevo razvitiya*, like many key ideas, has lost its meaning through its popularization and resulting trivialization, a problem in much educational writing (Compton-Lilly et al., 2021). Early in the field's "discovery" of Vygotsky, Wertsch (1984) was concerned that uninformed use of the ZPD as an explanatory construct would lead it to "be used loosely and indiscriminately, thereby becoming so amorphous that it loses all explanatory power" (p. 7). That, I believe, is what has happened.

But why? I will propose three reasons, all admittedly impressionistic from my reading of education scholarship. First, people who refer to the ZPD have often only read selectively from *Mind in Society* or from second-hand accounts written by those who themselves may be relying on other people's superficial reading of Vygotsky. They thus take the chapter out of the context of Vygotsky's main interest in long-term, socially-mediated human development, converting it to a teaching practice. This reductive shift produces the second reason: It suits teachers who are concerned primarily with short-term learning rather than long-term human development, in spite of claims that they are teaching for the future. Teacher accountability is not based on long-term human development, but on fast results, leading Vygotsky to be retrofitted to serve the ends of production-oriented education.

Finally, many people rely on educational psychology textbooks where Vygotsky is selectively referenced to make points congenial to information processing concepts that are not developmental in nature, rather than to the historically-grounded, socially-mediated, long-term developmental process that Vygotsky intended. It has thus been characterized as a "cognitive region" (Wilhelm et al., 2001, n.p.) rather than "on the *social system* within which we hope children learn, with the understanding that this social system is mutually and actively created by teachers and students" (Moll, 1990, p. 11; emphasis in original) in a "'collective' Zone of Proximal Development" (Moll & Whitmore, 1993, p. 20).

The translation as the *Zone of Next Development* per *The Butterflies of Zagorsk*, and the *Next Zone of Development* per Kellogg and Veresov (2019), emphasizes the role of historically-developed social contexts in mediating development. Through engagement with a succession of settings, people experience stages or periods (zones) of development over the course of time, rather than during the contained parameters of an instructional episode.

Vygotsky's (1978) most widely-referenced account of the ZPD comes from *Mind in Society*. According to this translation, the ZPD consists of

> 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. The Zone of Proximal Development defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state. These functions could be termed the "buds" or "flowers" of development rather than the "fruits" of development. . . . what is in the Zone of Proximal Development today will be the actual developmental level tomorrow—that is what a child can do with assistance today she will be able to do by herself tomorrow. (pp. 86-87).

Interpreting any one aspect of Vygotsky's writing requires situating it in relation to his broader developmental concern. Isolating passages from this context enables selective readings that fit the reader's needs without matching them with Vygotsky's emphasis. A very different conception follows from adopting the translation as the *Next Zone of Development*. The functions are *embryonic*, a developmental notion requiring long-term growth toward cultural *maturation*, which requires time and socialization. He uses season-long developmental language rather than instructional terms in referring to the *buds* or *flowers* of *development* rather than the *fruits* of *development*. Today and tomorrow don't literally refer to 24-hour periods, but instead to the current developmental level and one that awaits in the future. That literal reading of "tomorrow" has become embedded in the metaphor of instructional scaffolding, however. This metaphorical use of "tomorrow" to refer to "the future" and not "on the very next day or very soon, when I have to issue a grade" leads to a very different conception of what he was proposing. Vygotsky (1987) made this point himself, saying that "our research demonstrates that these sensitive periods [in which instruction is most likely to have effect] are associated with the social processes involved in the development of the higher mental functions" (p. 213) that take years to develop through extensive experience with a culture's values and practices.

Intersubjectivity is a factor in both instruction and socially-mediated development. It refers to the degree to which people interpret social situations in the same way. The field abounds with examples in which a lack of intersubjectivity can produce deficit conceptions of the student or teacher as easily as it can promote new understanding (Murphy & Brown, 2012). In what I consider to be an intellectually humble and responsible recognition of her own lack of intersubjectivity and the need to address it, Ballenger (1999), a teacher-researcher working with an international population, acknowledges that she initially misunderstood her students, and only became an effective teacher for them when she attempted to reorient her thinking to adopt their perspective. To Lantolf and Poehner (2023), intersubjectivity is critical when people try to understand one another from different cultural perspectives:

> [C]ultural–historical theory is psychologically oriented and emphasizes the development of individuals as a consequence of their participation in particular cultural practices that their community has evolved over the course of history. It argues that members of different cultures think differently than members of other cultures because they have inherited different mechanisms of verbal thinking (Toomela, 2008). Toomela (2008) concluded—and we concur—that "the sociocultural school oversimplifies the human mind when it proposes that all humans are at the same level of development," when in fact the evidence

> "suggests that they are not" (p. 62). Missing from the term and from the orientation of sociocultural is the importance of history, which Vygotsky—as a Marxist thinker—not only saw as central to the development of human mental processes on the phylogenetic, cultural, and ontogenetic time scale but it also provided the basis of his research methodology. The human species and individual cultures within the species over the course of history evolved distinct collective ways of acting and interacting with those aspects of nature they confronted and lived within, which in turn affected the formation of their modes of thinking. Any individual raised in a specific culture will take on those modes of thinking as well. (p. 5)

This long-term process of achieving intersubjectivity was part of the developmental emphasis of the whole of Vygotsky's career project. The scaffolding metaphor, however, relies on cold, inert scaffolds and buildings, ignoring the ways in which the instructional exchanges rely on emotional bonds to work. Lantolf and Poehner note that

> Vygotsky proposed word meaning as a unit of analysis for studying consciousness. The unit is comprised of a material component (i.e., sound waves) and a symbolic component (i.e., meaning). Later, he realized that the unit needed to be revised to take account of the volitional contribution emotions make to consciousness: "There exists a dynamic meaningful system that constitutes a unity of affective and intellectual processes" (Vygotsky, 1987, p. 50). (p. 7)

With these concerns in mind, let us return to Vygotsky's (1978) description of the ZPD, with the NZD replacing what Kellogg and Veresov maintain is a misleading translation of the concept. With this shift, Vygotsky's meaning changes dramatically from a temporary means of formal instructional support to a long-term developmental process mediated by social and cultural means:

> The Next Zone of Development defines those functions that have not yet matured but are in the process of maturation, functions that will mature tomorrow but are currently in an embryonic state. These functions could be termed the "buds" or "flowers" of development rather than the "fruits" of development. . . . what is in the Next Zone of Development today will be the actual developmental level tomorrow—that is what a child can do with assistance today she will be able to do by herself tomorrow. (pp. 86-87).

The buds don't mature overnight, but transform into their next stage of development over the course of a season. As Xi and Lantolf describe it, "It is difficult to capture the developmental process as envisioned by Vygotsky through the scaffolding metaphor and for this reason we have argued that it has no place in his theory of general psychology" (p. 45). I am confident that they are right in arriving at this conclusion, which suggests that much of what Vygotsky is referenced for—the ZPD and scaffolding—relies on a mistranslation of the

original and corruption of the construct in order to contort it to fit the Procrustean bed of daily lesson planning.

Discussion

I greatly appreciate this opportunity to explore some ideas I engaged with in reading Lantolf's recent articles in which he outlines how Vygotskian cultural-historical theory has informed and enriched his work. Given my limited knowledge of second or additional language learning pedagogies, and admitted shortcomings in trying to add a few national languages to my English repertoire, I have focused on areas that are of mutual interest to us.

By reading scholarship in a discipline other than my own field of English or literacy education, I have engaged in a dialectical process. I have also engaged the work of scholars who have squabbled on journal pages, e.g., Kellogg (2017) and Poehner et al. (2018), to find a way through their disagreements and find common ground. Although this effort did not quite involve the union of opposites, it did require me to read somewhat uncomfortably. I have found that taking on the reading of ideas that are new or dissonant to me to be very beneficial. The object of such reading is not to figure out the winner of a dispute, but to try to synthesize difference into something more sophisticated.

I admire Lantolf not only for the quality of this thinking, but for his willingness to grow through his engagement with the obstacles of opposing thoughts. My own exposure to translanguaging, and reconsideration of the notion of an L1, might illustrate this process. Although I have no real way of understanding an I-language that provides a tumbling mix of language systems, I can see theoretically how that might work when I consider Vygotsky's proposition of inner speech that is a consequence of appropriating the speech of more mature members of a culture, and of appropriating the concepts that accompany the speech. To Vygotsky, inner speech would not be possible to transcribe, instead representing an inchoate tumult of thoughts that only achieve coherence through articulation into speech; or in more modern multimodal conceptions, any appropriate semiotic sign system. The inner speech, the I-language, of a person without an L1 would be all this and more.

I also am aware that many Europeans speak multiple languages, perhaps elevating one to L1 status but perhaps not always (e.g., the Welsch context of Williams, 1994). I wonder how the inner speech of Van der Veer (1997), among Vygotsky's most distinguished translators and interpreters, would sound when Van der Veer, a native of the Netherlands, relates that after translating, from Russian to English, Vol. 3 of the *Collected Works*, "I carefully checked my translation against the German and Spanish translations of the same volume" (p. *v*). That's five languages working simultaneously on the same project. Try transcribing that.

Lantolf has spent many decades seeking to understand language teaching and learning, cultural mediation, dialectical thinking, human development, and much else related to Vygotsky's project. He is a provocative thinker and writer whose international experiences have made him an applied thinker as well as applied linguist, yet one whose understanding of practice relies on a sophisticated theory. I'm glad to have had this opportunity to engage with his work and relate it to my own and that of others, and hope that readers come away with something new and challenging to consider.

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References

Alneyadi, M., Aljanaahi, A., Alhammadi, E., Almarzooqi, K., & Alhammadi, K. (2023). English in global commerce: Understanding its role, benefits, and impediments. *Research Studies in English Language Teaching and Learning*, *1*(5), 245-258. https://doi.org/10.62583/rseltl.v1i5.31

Arievitch, I. M. (2017). *Beyond the brain: An agentive activity perspective on mind, development, and learning*. Sense. https://doi.org/10.1007/978-94-6351-104-9

Ballenger, C. (1999). *Teaching other people's children: Literacy and learning in a bilingual classroom*. Teachers College Press.

BBC. (1990). *The butterflies of Zagorsk*. (M. Dean, Producer). Author. http://lchc.ucsd.edu/Movies/Butterflies_of_Zagorsk.mp4

Brown, A. L. (1978). Knowing when, where and how to remember: A problem of metacognition. In R. Glaser (Ed.), *Advanced in instructional psychology* (pp. 77–165). Plenum.

Cole, M. (2009). The perils of translation: A first step in reconsidering Vygotsky's theory of development in relation to formal education. *Mind, Culture, Activity: An International Journal*, *16*(4), 291–295. https://doi.org/10.1080/10749030902795568

Compton-Lilly, C., Lewis Ellison, T., Perry, K., & Smagorinsky, P. (Editors). (2021). *Whitewashed critical perspectives: Restoring the edge to edgy ideas in literacy education.* Routledge. https://doi.org/10.4324/9781003087632

Dafermos, M. (2018). *Rethinking cultural-historical theory: A dialectical perspective to Vygotsky*. Springer. https://doi.org/10.1007/978-981-13-0191-9

García, O., & Wei, L. (2014). *Translanguaging: Language, bilingualism and education*. Palgrave Macmillan. https://doi.org/10.1057/9781137385765

Graham, S., & Perin, D. (2007). A meta-analysis of writing instruction for adolescent students. *Journal of Educational Psychology*, *99*(3), 445–476. https://doi.org/10.1037/0022-0663.99.3.445

Hillocks, G., Jr. (1986). *Research on written composition: New directions for teaching*. National Conference on Research in English/ERIC Clearinghouse on Reading and Communications Skills.

Kellogg, D. (2018). The 'D' Is for development: Beyond pedagogical interpretations of Vygotsky's ZPD. *Applied Linguistics*, *39*, 241-246. https://doi.org/10.1093/APPLIN/AMX006

Kellogg, D., & Veresov, N. (2019). Setting the stage. In L.S. Vygotsky, *L.S. Vygotsky's pedagogical works: Volume 1: Foundations of pedology* (pp. v-xx). (D. Kellogg & N. Veresov, Trans.). Springer.

Krashen, S. D. (1981). *Second language acquisition and second language learning*. Pergamon Press.

Krashen, S. D., & Terrell, T. (2000). *The natural approach: Language acquisition in the classroom*. Pearson Education Limited.

Lantolf, J. P. (2022). A cultural-historical perspective on Digital Language Learning. *Bilingualism: Language and Cognition*, *25*, 390–391. https://doi.org/10.1017/S136672892100081X

Lantolf, J. P., & Poehner, M. E. (2023). Sociocultural theory and classroom second language learning in the East Asian context: Introduction to the special issue. *The Modern Language Journal*, *107*, 3–23. https://doi.org/10.1111/modl.12816

Lantolf, J. P., Xi, J., & Minakova, V. (2021). Sociocultural theory and concept-based language instruction. *Language Teaching*, *54*, 327–342. https://doi.org/10.1017/S0261444820000348

Lewis, G., Jones, B., & Baker, C. (2012). Translanguaging: Origins and development from school to street and beyond. *Educational Research and Evaluation: An International Journal on Theory and Practice*, *18*(7), 641–654. https://doi.org/10.1080/13803611.2012.718488

Lowe, C. (2001). *The trouble with tribe*. https://www.learningforjustice.org/magazine/spring-2001/the-trouble-with-tribe#SnippetTab

Makalela, L. (2015a). Moving out of linguistic boxes: the effects of translanguaging strategies for multilingual classrooms. *Language and Education*, *29*(3), 200-217. https://doi.org/10.1080/09500782.2014.994524

Makalela, L. (2015b). Translanguaging as a vehicle for epistemic access: cases for reading comprehension and multilingual interactions. *Per Linguam*, *31*(1), 15-29. https://doi.org/10.5785/31-1-628

Makalela, L. (2016). Ubuntu translanguaging: An alternative framework for complex multilingual encounters. *Southern African Linguistics and Applied Language Studies*, *34*(3), 187-196. https://doi.org/10.2989/16073614.2016.1250350

Makalela, L. (2022). *Not eleven languages: Translanguaging and South African multilingualism in concert*. De Gruyter Mouton. https://doi.org/10.1515/9781614515067

Moll, L. C. (1990). Introduction. In L.C. Moll (Ed.), *Vygotsky and education: Instructional implications and applications of sociohistorical psychology* (pp. 1–27). Cambridge University Press.

Moll, L. C., & Whitmore, K. F. (1993). Vygotsky in educational settings: Moving from individual transmission to social transaction. In E. Forman, N. Minick, & A. Stone (Eds.), *Contexts for learning: Sociocultural dynamics in children's development* (pp. 19-42). Oxford University Press. https://doi.org/10.1093/oso/9780195067156.003.0002

Murphy, M., & Brown, T. (2012). Learning as relational: Intersubjectivity and pedagogy in higher education. *International Journal of Lifelong Education*, *31*(5), 643–654. https://doi.org/10.1080/02601370.2012.700648

Newman, D., Griffin, P, & Cole, M. (1989). *The construction zone: Working for cognitive change in school*. Cambridge University Press.

Noske, M. (2016, February 19). Multilingualism and language choice in Sub-Saharan Africa. *Multilingual*. https://multilingual.com/articles/multilingualism-and-language-choice-in-sub-saharan-africa/

Paradis, M. (2009). *Declarative and procedural determinants of second languages*. John Benjamins. https://doi.org/10.1075/sibil.40

Poehner, M. E., Kinginger, C., van Compernolle, R., & Lantolf, J. P. (2017). Pursuing Vygotsky's dialectical approach to pedagogy and development: A response to Kellogg. *Applied Linguistics*, 1-6. https://doi.org/10.1093/applin/amx033

Salomone, R. (2021). *The rise of English: Global politics and the power of language*. Oxford University Press.

Schmal, J. (n.d.). How many languages are spoken in Mexico? *Indigenous Mexico*. https://www.indigenousmexico.org/articles/how-many-languages-are-spoken-in-mexico

Smagorinsky, P. (2012). Vygotsky, "defectology," and the inclusion of people of difference in the broader cultural stream. *Journal of Language and Literacy Education* [Online], *8*(1), 1-25. http://jolle.coe.uga.edu/wp-content/uploads/2012/05/Vygotsky-and-Defectology.pdf

Smagorinsky, P. (Ed.). (2016). *Creativity and community among autism-spectrum youth: Creating positive social updrafts through play and performance.* Palgrave Macmillan.

Smagorinsky, P. (2018a). Deconflating the ZPD and instructional scaffolding: Retranslating and reconceiving the zone of proximal development as the zone of next development. *Learning, Culture and Social Interaction, 16*, 70-75. http://dx.doi.org/10.1016/j.lcsi.2017.10.009

Smagorinsky, P. (2018b). *Teaching English by design: How to create and carry out instructional units, 2nd Edition.* Heinemann.

Smagorinsky, P. (2024). *L. S. Vygotsky and English in Education and the Language Arts.* Routledge & International Federation of Teachers of English. https://doi.org/10.4324/9781003374848

Smagorinsky, P., Johannessen, L. R., Kahn, E. A., & McCann, T. M. (2010). *The dynamics of writing instruction: A structured process approach for middle and high school*. Heinemann.

Smagorinsky, P., Cook, L .S., & Johnson, T. S. (2003). The twisting path of concept development in learning to teach. *Teachers College Record, 105*, 1399-1436. https://doi.org/10.1111/1467-9620.002

Toomela, A. (2008). Vygotskian cultural-historical and sociocultural approaches represent two levels of analysis: Complementarity instead of opposition. *Culture & Psychology*, *14*, 57–69. https://doi.org/10.1177/1354067X07085812

Van der Veer, R. (1997). Translator's foreword and acknowledgements. In L.S. Vygotsky (Ed.), *Collected works* (Vol. 3: Problems of the theory and history of psychology, pp. v–vi, R.W. Rieber & J. Wollock, Eds., R. van der Veer, Trans.). Plenum.

Van der Veer, R. (2002). Editor's introduction: Criticizing Vygotsky. *Journal of Russian and East European Psychology, 38*(6), 3-9. https://doi.org/10.2753/RPO1061-040538063

Van der Veer, R., & Valsiner, J. (1991). *Understanding Vygotsky: A quest for synthesis*. Blackwell.

Vanthemsche, G., & DePeuter, R. (2023). *A concise history of Belgium*. Cambridge University Press. https://doi.org/10.1017/9781139018005

Vygotsky, L. S. (1971). *The psychology of art.* (Scripta Technica, Inc., Trans.). M.I.T. Press.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes.* (M. Cole, V. John-Steiner, S. Scribner, & E. Souberman, Eds. & Trans.). Harvard University Press. https://doi.org/10.2307/j.ctvjf9vz4

Vygotsky, L. S. (1987). Thinking and speech. In L.S. Vygotsky, *Collected works* (Vol. 1, pp. 39–285). (R. Rieber & A. Carton, Eds.; N. Minick, Trans.). Plenum. https://doi.org/10.1007/978-1-4613-1655-8

Vygotsky, L. S. (1993). *The collected works of L.S. Vygotsky. Volume 2: The fundamentals of defectology (abnormal psychology and learning disabilities).* (R.W. Rieber & A.S. Carton, Eds.; J.E. Knox & C.B. Stevens, Trans.). Plenum. https://doi.org/10.1007/978-1-4615-5401-1

Vygotsky, L. S. (1997a). *The collected works of L.S. Vygotsky. Volume 3: Problems of the theory and history of psychology*. (R.W. Rieber & J. Wollock, Eds.). Plenum. https://doi.org/10.1007/978-1-4615-5893-4

Vygotsky, L. S. (1997b). *Educational psychology*. (L.S. Vygotsky & V.V. Davydov, Eds.; R. Silverman, Trans.). St. Lucie Press. https://doi.org/10.4324/9780429273070

Vygotsky, L. S. (1998). *The collected works of L.S. Vygotsky. Volume 5: Child psychology*. (R. Rieber, Ed.; M. J. Hall, Trans.). Plenum. https://doi.org/10.1007/978-1-4615-5401-1

Vygotsky, L. S., & Luria, A. R. (1993). *Studies on the history of behavior: Ape, primitive, and child*. (V.I. Golod & J.E. Knox, Eds. & Trans.). Erlbaum. https://doi.org/10.4324/9780203772683

Wertsch, J. V. (1984). The zone of proximal development: Some conceptual issues. In B. Rogoff & J.V. Wertsch (Eds.), *New directions for child development: No. 23. Children's learning in the "zone of proximal development"* (pp. 7-18). Jossey-Bass. https://doi.org/10.1002/cd.23219842303

Wertsch, J. V. (2007). Mediation. In H. Daniels, M. Cole, & J. V. Wertsch (Eds.), *The Cambridge companion to Vygotsky* (pp. 178–192). Cambridge University Press. https://doi.org/10.1017/CCOL0521831040.008

Wilhelm, J. D., Baker, T., & Dube, J. (2001). *Strategic reading: Guiding students to lifelong literacy*. Heinemann.

Williams, C. (1994). *Arfarniad o Ddulliau Dysgu ac Addysgu yng Nghyd-destun Addysg Uwchradd Ddwyieithog*, [*An evaluation of teaching and learning methods in the context of bilingual secondary education*]. Unpublished doctoral thesis, University of Wales, Bangor. https://research.bangor.ac.uk/portal/files/20574535/null

Wood, D., Bruner, J. D., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry, 17*, 89–100. https://doi.org/10.1111/j.1469-7610.1976.tb00381.x

Xi, J., & Lantolf, J. P. (2021). Scaffolding and the zone of proximal development: A problematic relationship. *Journal of Theory Social Behavior, 51*, 25–48. https://doi.org/10.1111/jtsb.12260