

**LANGUAGE AND COMMUNICATION THROUGH  
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**ЯЗЫК И ОБЩЕНИЕ СКВОЗЬ ПРИЗМУ  
КУЛЬТУРНО-ИСТОРИЧЕСКОЙ ПСИХОЛОГИИ**

# The ZPD, Second Language Learning, and the Transposition ~ Transformation Dialectic

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The Zone of Proximal Development (ZPD) held “great practical significance” for education as it identified how instruction can optimally impact learner development: by aligning mediation not to abilities that have already fully formed but to those that are emerging or “ripening” [30]. Despite being one of the most well-known and influential features of Vygotsky’s writings, it has also been subject to critique. For instance, it is [25] suggested that Vygotsky introduced a “methodological paradox” in formulating the ZPD: it endeavors to bring into focus proximal or future psychological functioning by engaging in teaching-learning activity in the present. In their view, this means that direct, empirical study of the ZPD is not possible as it can only be inferred retrospectively, once future abilities have become the new present [25]. Moreover, Valsiner and van der Veer [25] charged that Vygotsky’s depiction of the ZPD did not reflect his commitment to dialectical thinking because the concept does not allow for the creation of anything new but implies “mere transposition from the interindividual to the intraindividual domain” [25, p. 48]. Supporting our arguments with examples from research in our field of second language (L2) studies, we propose that attention to changes in the quality of mediation learners require during ZPD activity offers a means of observing the future as the abilities in question shift from ‘ripening’ to ‘developed.’ In this way, future independent performance is brought into the present during dialectical activity wherein tension between learner actual abilities and the demands of the task are resolved through mediator-learner cooperation. We propose this process as a way of realizing ‘the methodological imperative’ that was sought after by Vygotsky [26]. We then consider the importance of the relationship between learner transposition of ideal language features presented through instruction and the development of the ability to creatively manipulate these features in order to shape how others construe objects and events in accordance with the user’s personal perspective.

**Keywords:** zone of proximal development, methodological imperative, dynamic assessment, prediction, transformation, transposition, creativity, dialectic.

**For citation:** Poehner M.E., Lantolf J.P. The ZPD, Second Language Learning, and the Transposition ~ Transformation Dialectic. *Kul'turno-istoricheskaya psikhologiya = Cultural-Historical Psychology*, 2021. Vol. 17, no. 3, pp. 31–41. DOI: <https://doi.org/10.17759/chp.2021170306>

## Introduction

Vygotsky’s discovery of the Zone of Proximal Development (ZPD) must rank among the most important of psychology in the Twentieth Century. It is certainly among the concepts most closely associated with Vy-

gotsky, and it has influenced theorizing and practice in a number of fields, including education. Indeed, nearly forty years ago, when Western scholars were still becoming acquainted with Vygotsky’s writings, some worried that the ZPD had already been applied so “loosely and indiscriminately” that it risked losing its “explanatory

power” [34, p. 7]. Others lamented that references to the ZPD had become so ubiquitous that it was “one of the most used and least understood constructs to appear in contemporary educational literature” [21, p. 370]. In contrast, it was suggested that the ZPD lends itself to multiple readings and, understood in the full context of Vygotsky’s theory, has broad applications to psychological abilities and their development in children as well as adults [16]. Vygotsky himself wrote of the ZPD’s “great practical significance” for education [30, p. 204].

Divergent interpretations of the ZPD may in part be due to the translations of Vygotsky’s writings into English. Table 1 offers a comparison of one of the most well-known definitions of the ZPD as it appears in *Mind in Society* [28] with a more recently translated paper, *The dynamics of the schoolchild’s mental development in relation to teaching and learning* [32]. The former, which has had considerable influence on how Vygotsky’s ideas have been interpreted in the English-speaking world, is not a monograph prepared by Vygotsky but is instead an assemblage of his lecture notes and papers.

The contrasts in these translations, while seemingly subtle, have reinforced differing ‘readings’ of the ZPD [16]. The phrasing of the 1978 [28] translation, with mention of potential development as an aptitude that is created through mediated interaction, resonates with an interpretation of the ZPD as itself a quality or property of individuals. Indeed, one of Vygotsky’s earliest known discussions of the ZPD was in a 1933 lecture delivered at the Bubnov Institute that examined the observation that IQ measures of young children often shifted over the first year of schooling, with low performers gaining and high performers losing IQ points. Vygotsky explained that through an alternate administration of the test, in which children were offered support when they encountered problems, it was possible to group them not only according to low or high IQ but also on the basis of a large or small ZPD, defined according to how responsive they were to support. This argument inspired a range of procedures referred to as Dynamic Assessment (DA) [14] aimed at uncovering latent potential ability among low performing learners (e.g., [5]; [6]). A concern that arises from this reading of the ZPD, however, is the extent to which abilities are construed as already present in individuals rather than created through cultural

transformation of the natural lines of development, a position Vygotsky argued forcefully.

The appearance of the terms “guidance,” “cooperation,” and “collaboration” in definitions of the ZPD follow Vygotsky’s maxim that “what the child can do in cooperation today he can do alone tomorrow [33, pp. 199–200]. Therefore, the only good kind of instruction is that which marches ahead of development and leads it.” Aside from passing references to prompts, leading questions, and feedback, Vygotsky did not detail what such cooperation might include, but a theoretical argument that concerns ‘helping’ learners to do more than they can independently was perhaps the most readily embraced aspect of early translations of Vygotsky’s writings. The metaphor of ‘scaffolding’ [36], likely familiar to all educators, expresses this reading of the ZPD, as an adult or teacher possesses the expertise needed to complete a task and acts ‘on’ the learner accordingly (see also [7]). It has also been observed that the relation between successful task completion and learner development of relevant psychological abilities is not always clear in discussions of scaffolding [24]. Moreover, as the metaphor has become increasingly employed to describe assistance offered from one individual to another, less attention has often been given to the basis for determining what kinds of support to offer and when to do so or when to permit individuals to attempt tasks on their own. While scaffolding suggests an engineering endeavor and the effort of an expert to offer something to learners, Vygotsky seems to prefer a gardening analogy that requires the gardener to take careful account of those plants that have already produced fruits and flowers and those that have only buds and to alter his attention and activity accordingly. Indeed, consideration of what is not yet present but could be if properly nurtured is, in our view, a crucial feature of Vygotsky’s conceptualization of the ZPD and one that requires further attention if its significance to education is to be realized [for a critique of the scaffolding metaphor, see 37].

The purpose of this paper is to address two critical and related issues raised by Valsiner and van der Veer [25] in their discussion of the ZPD. The first issue is their critique that the ZPD fails to adequately conceptualize future development. According to these authors, Vygotsky introduced a “methodological paradox” by re-

Table 1

Translating Vygotsky’s description of the ZPD

Source Text	<i>Mind in Society</i> [28, p. 86] (emphasis added)	<i>The dynamics of the schoolchild’s mental development in relation to teaching and learning</i> [32, p. 204] (emphasis added)
Excerpt	“the distance between the actual developmental level as <i>determined</i> by independent problem solving and the level of <i>potential</i> development as <i>determined through</i> problem solving under adult guidance or in collaboration with more capable peers”	“the distance between the level of his actual development, <i>determined with</i> the help of independently solved tasks, and the level of <i>possible</i> development, <i>defined with</i> the help of tasks solved by the child under the guidance of adults or in cooperation with more intelligent peers”
Difference 1	determined by/through = made possible by, dependent on	determined/defined with = the activity is helpful to identifying it
Difference 2	potential development = aptitude or ability to develop	possible development = a glimpse of what might be worked toward

lying upon teaching-learning activity in the present to observe the future because, they maintain, this approach allows for only an interpretation of what might be – an interpretation that can be evaluated after development occurs, that is, retrospectively as inferred future abilities become the new present. The second issue is their further charge that Vygotsky's modeling of the future emphasized a "mere transposition" from the inter-psychological domain of individuals functioning together to the intra-psychological domain of a person functioning independently, effectively delimiting development to the transfer, or reproduction, of existing knowledge and ability rather than the creation of something new. In an attempt to respond to these crucial issues, we consider two studies reported in the second language (L2) learning research literature.

## Background

### 1. The ZPD and L2 studies

The field of L2 studies as a distinct area of research began in earnest with the work of S. Pit Corder [9] and revolved around empirical investigations of errors produced by learners while studying an L2. Many of the assumptions of these early studies were influenced by the arguments proposed by Chomsky [8] to account for processes of first language acquisition. In his view, observed regularities of the timing and sequencing of acquisition of particular language features, as well as children's capacity to extrapolate patterns from impoverished instances of language use they encounter, could only be explained if language acquisition obeyed a set universal constraints determined by our biological endowment. Although Chomsky had little to say regarding L2 development, others (e.g., [35]) proposed a relationship between L2 acquisition and universal grammar that eventually relegated the role of teachers to providing input necessary to set in motion internal processes of L2 acquisition.

As scholarship in L2 studies grew, other theoretical accounts of L2 development gained traction, but the assumption that the field ought to be exclusively concerned with processes internal to individuals predominated. For instance, it was proposed that all learners regardless of first language or whether learning occurs inside or outside of classrooms, adhere to specific developmental sequences as they acquire particular features of an L2 (e.g., German word order, English negation) [22]. Some researchers insisted that L2 development was an internal cognitive process and therefore proposed that the study of L2 acquisition should be considered a sub-field of cognitive science [11].

Against this backdrop interest in Vygotsky's theory grew among L2 researchers, beginning with its introduction to the field through the work of Frawley and Lantolf [12] and continuing with a robust series of studies through the 1990s that employed concepts and principles drawn from Vygotsky's writings to explicate processes of L2 development. A study of L2 English tutor-learner interactions [1], and discussed in more detail later, has been particularly influential in specifying principles of

mediation and learner responsiveness when their performance breaks down. While L2 Vygotsky scholars have carried out studies examining approaches to mediation with diverse populations of learners in a range of instructional contexts [for a recent review, see 19], they have yet to fully explore its implications for future performance – the topic of the discussion that follows.

### 2. The ZPD and future development: A paradox and a conundrum

In their analysis of Vygotsky's discussions of the ZPD (or ZBR in Russian), Valsiner and van der Veer submit that his use of the concept in the situations we have reviewed were each predicated upon a single "underlying causal system" of development, a system that in their view he did not fully specify [25, p. 45]. The system in question is imitation as reflected in the ideas of Baldwin on *persistent imitation* [3]. Vygotsky understood imitation not as a form of copying or mimicry but as a creative act [32]. For example, a person with no musical training might carefully watch the movements of an orchestra conductor and reproduce them, but it cannot be said that this person is conducting. Without an understanding of the meaning behind the various movements made by a conductor – the direction of strokes, their timing, the musicians to whom they are oriented, and so on – the person is only copying what the conductor has done and cannot go beyond it (i.e., offer direction to a real orchestra as they play the same piece of music or indeed a different one). Imitation, continuing with this example, would pertain to an apprentice conductor honing his/her abilities through careful observation of the master's moves, and observation with an understanding of the signification of each move. By imitating the master, an apprentice conductor gains experience leading an orchestra and through this process develops his/her ability to conduct other pieces and other orchestras in the future. It may also be that the apprentice conductor introduces variations that the master did not produce, leading the piece to be performed in a recognizable but distinctive manner.

Creative experimentation that transforms the model is a crucial feature of development as it is what enables individuals to function in changing circumstances and to meet as yet unknown problems and challenges. It is also central to Vygotsky's commitment to dialectical thinking, in which change entails a merging of thesis and antithesis and the emergence of something new, a process that brings the present into the future in a manner that retains elements of what has been while creating what not yet is. However, it is precisely in this way that Valsiner and van der Veer believe that the ZPD "falls out of the [sic] line with most other ideas of his [Vygotsky's] theoretical heritage" [25, p. 48]. Those authors describe what we term a paradox and a conundrum in Vygotsky's analysis of the ZPD and how it reveals the future.

The "methodological paradox" concerns the matter of predicting future abilities based on observable performance in the present [25]. To be sure, predicting the future is of interest to psychologists and educators, but the originality of Vygotsky's proposal is that the evidential

basis for making predictions is expanded beyond observations of learner independent performance to include their performance guided by someone else. Focusing on the implications of the ZPD for education, the authors note that teaching-learning (*obuchenie*) was proposed by Vygotsky as the central driver of development, the activity that must precede development such that it targets abilities that are ripening and pushes them toward maturity. In their view, while *obuchenie* creates the ZPD in the present, “there is no way in which anybody can study that process directly, within the present” [25, p. 46]. Moreover, while “it is relatively easy to observe the presence of those psychological functions that are well formed,” functions “that are only in the process of approaching their recognizable final forms” cannot be observed directly [25, p. 47]. Those latter psychological processes can only be explicated as the present shifts to the nearest past and the nearest future becomes the present. Valsiner and van der Veer point out that because of the irreversible nature of time empirical research can only be conducted in the present and any efforts to understand the future occur only as predictions that cannot be evaluated except retrospectively. The inability to locate “where development happens” resulted in what Valsiner and van der Veer characterize as a “crisis in psychology” [26, p. 152].

Vygotsky recognized the crisis and consequently established as a “methodological imperative” that diagnosis of development cannot be limited to analysis of actual development (i.e., it fruits) but it must also analyze what is in the process of emerging (i.e., it buds and flowers), with the link between *obuchenie* and the ZPD seen as the key to realizing the imperative [26, p. 157]. Accordingly, Vygotsky proposed that it is possible to “get a glimpse” of emerging development by investigating the process of joint problem-solving activity whereby collaborative “guides the functions involved toward their final forms of the future” [26, p. 159]. As far as we can determine, Vygotsky did not provide explicit evidence of the methodological imperative at work. The only predictions that he made were in conjunction with his frequently cited research regarding IQ and the ZPD [33] which represented a purely quantitative interpretation of the concept [26, p. 158]. Van der Veer and Valsiner point out a problem with regard to the predictability of the quantitative interpretation [27]. A child with a chronological age of 4 and a mental age (determined by IQ test) of 4.5 and who is able to solve problems with hints and prompts at mental age of 7 the child was considered to have a ZPD mental age of 2.5, meaning that within 2.5 years that child’s independent performance would match her collaborative performance at age 4 [27, p. 342]. The problem is that Vygotsky assumed that despite the passage of time, everything in the child’s life remained as it was when she was 4. Presumably, however, others would continue to interact with the child and by the time she reached the age of 5, the collaborative performance of the child could have presumably improved resulting in a ZPD mental age beyond the original projected mental age of 7.

We would like to propose a possible way of addressing Vygotsky’s “methodological imperative” based on

some research carried out in second language development. Before doing so, we will first discuss the Valsiner’s and van der Veer’s conundrum, which is related to the predictability paradox of the ZPD.

The conundrum arises as Vygotsky’s examples of adult-child or teacher-learner interactions appear to limit development to approximation of the target or ideal model that is provided and do not take adequate account of creativity [25]. Indeed, Valsiner and van der Veer read Vygotsky’s depiction of internalization as a “mere transposition from the interindividual to the intraindividual domain,” a process in which “no dialectical construction of novelty is implied” [25, p. 48]. They continue, “the nearest-future state of development cannot be predicted from the child/social context interaction, although the latter undoubtedly plays a role in the synthesis of (unpredictable) future of the psychological functions” [25, p. 48]. In what follows, we draw on evidence from two studies of L2 teaching and learning to offer a possible resolution of the paradox and a viable way out of the conundrum. We are not asserting that our proposals are ironclad; however, we believe that they are worth considering and could serve as a basis for additional research and commentary.

### Predicting the Future and the Methodological Imperative

While not directly addressing the prediction paradox, Aljaafreh nevertheless formulated a procedure that we believe has some promise in achieving its resolution [1]. As a first step in our proposal, consider the ‘hierarchy of mediation’ (see Table 2) deployed by Aljaafreh [1] and reported in Aljaafreh and Lantolf [2]. The hierarchy, arranged from most implicit to most explicit, reflects the various types of mediation Aljaafreh used when interacting with three ESL learners as he helped them revise some of the written work required in their ESL course. His assumption was that the quality of mediation is as important, if not more so, for diagnosing and promoting learner development than is quantity of mediation. In this regard he concurs with researchers [see 4; 39; 26] who suggest that the quality of assistance provided by others may be the most significant feature in promoting development in the ZPD, as reflected in the following comment: “The quality of mediation matters: For one person a slight prompt or hint is sufficient while another has to have things clearly shown and explained” [4, p. 52]. Our proposal with respect to the methodological imperative is that the quality of mediation may not only promote development, it may also serve as a means of glimpsing the future.

For the most implicit level of mediation 0 the learners were asked to locate and correct any errors in their texts prior to a tutorial session, while for the most explicit level (12) the tutor illustrated correct use of a given language feature. The justification for counting level 0 as mediation is predicated on the assumption that without such a request from the tutor, the learners most likely would not have reviewed their work prior to a session.

Level 1 is also quite interesting, because learners would often state that they could not find errors when asked to do so prior to a session, but once they sat next to the tutor but before any interaction was initiated some were able to identify and even occasionally correct an error. This indicates that a learner's orientation to the text changed once the social situation changed from doing something alone to the opportunity to collaborate with another person [1; 29].

Learners who produced appropriate language as a result of more implicit mediation were considered to be more advanced in their linguistic development than were learners who required more explicit mediation [1]. Aljaafreh devised a schema for ranking the developmental trajectory of learners based on their responsiveness to mediation. This schema is presented in Table 3 below.

The column marked as Level indicates what Aljaafreh considered to be the developmental state of a given learner for a given language feature ranked from 1 lowest to 5 highest. The next column shows whether or not learners were able to notice or identify errors they produced in their original performance. Level 1 learners were unable to notice an error, while those at levels 2 through 5 did so. The third column indicates whether or not a learner was able to correct an error with level 1 and 2 learners unable to do so, while those at levels 3 through 5 displayed the ability to make a correction. The final, and most revealing column, indicates whether or not the learners were able to respond appropriately to a tutor's mediation. Level 1 learners were unable to respond in anyway to tutor mediation, while those at the remaining four levels were capable of correction under appropriate mediation.

To fully appreciate the significance of learner performance reflected in Table 3, it is necessary to read across

the four columns. Thus, a learner at level 1 was unable to notice or correct an error even with mediation whether implicit or explicit. This implies that at this point the feature is not within the learner's ZPD. A Level 2 learner was able to notice an error, but could not correct it even with explicit mediation. The implication here is that the learner was at the very early stage of development. In Vygotsky's ZPD metaphor, the feature was just beginning to bud. A learner at Level 3 was able to notice an error and correct it but only with a high level of explicit mediation, while a learner at Level 4 noticed and corrected an error in response to implicit mediation. Finally, Level 5 learners functioned independently in that they noticed and corrected an error without mediation. The process reflected in this category in terms of Vygotsky's metaphor manifests full flowering of a plant but does not yet bear full fruit because learners are still incapable of error-free performance. Nevertheless, when they do falter, they can detect and correct a problem.

To illustrate how the schema given in Table 3 figures into predicting a learner's developmental future/trajectory, consider the evidence concerning use of Tense by learner N given in Table 4 and the same learner's use of articles presented in Table 5.

Learner N clearly had problems controlling English tense marking and required a good deal of mediation from the tutor to identify and correct his performance. The key column in terms of future development is the ZPD column, where the numbers correspond to the levels presented in Table 3. Indeed, the mean of this learner's performance is 2.6, which means that control over the feature of tense was only in the budding stage. Therefore, we would predict that independent performance for the tense feature for this learner is not in the near future. On the other hand, if we now consider the same learner's

Table 2

**Hierarchy of mediation [2]**

0. Ask learner to find and correct errors prior to session
1. "Collaborative frame" prompted by presence of tutor as dialogic partner
2. Focused scan of utterance with error
3. Tutor indicates something is problematic in sentence, clause, line...
4. Tutor rejects unsuccessful attempts at identifying error
5. Tutor narrows focus — repeats or points to segment with error
6. Tutor indicates nature of error — "something wrong with tense marker"
7. Tutor identifies error — "you can't use auxiliary here"
8. Tutor rejects learner's unsuccessful attempts at error correction
9. Tutor provides clues to help learner arrive at correct form (It is not really past but is still ongoing)
10. Tutor provides correct form
11. Tutor provides explanation
12. Tutor provides examples of correct use

Table 3

**Responsiveness to mediation [1]**

Level	Notice	Correct	Intervention
1	-	-	-
2	+	-	+
3	+	+	+ (high)
4	+	+	+ (low)
5	+	+	Self-repair

performance regarding use of the English articles, given in Table 5, we see a greater degree of control over this feature when compared to tense. Again, the key evidence comes from the ZPD column in which the learner scores 4 and 5 with a mean of 4.3, a clear indication of more advanced development, or in Vygotsky’s terms, not just a bud but a full flower that is close to producing fruit.

An important aspect of the proposal regarding prediction of future development has to do with how development is conceptualized. It has been generally assumed that development is manifested only in terms of change in an individual’s independent performance in a particular domain, whether it be language, mathematics, or musical ability. However, the claim that we are making with regard to the ZPD is that development can also be observed in changes in mediation required for learner performance to improve. In other words, improved performance resulting from implicit mediation is indicative of greater development than is performance that requires explicit mediation. This is documented in the comparison between Tables 4 and 5. Learner N’s responsiveness to implicit mediation with regard to English articles shows that his development was more advanced than tense, which required more explicit mediation. If we determine development solely on the basis of independent performance, it is likely that we would miss the opportunity to observe the future in the making, because N’s independent performance with regard to tense marking and article selection was by and large problematic. The key to observing the future then rests on how individuals respond to mediation.

As for the matter of how to evaluate a prediction other than retrospectively, it is our view that responsiveness to mediation in the present is a likely indicator of the future in the making. Recall that van der Veer and Valsiner suggested that Vygotsky seemed to assume a static environment when he made his predictions regarding IQ and ZPD [27]. One could make a similar assumption

with respect to the current proposal. However, we must also keep in mind that Vygotsky linked the diagnosis of development in the ZPD with *obuchenie*—the teaching-learning dialectic that should occur in educational settings. If indeed instruction is organized to take account of learners’ ZPD [see 32], teachers will continue to guide development based on the maturational level displayed by learners. In the case of learner N, because his ability to use tense appropriately is less mature than his ability to use articles, instruction will need to be more explicit and take up a longer span of time for the former than the latter feature of English. In other words, a possible way of realizing Vygotsky’s methodological imperative to glimpse the future is through the quality of mediation necessary to support learner performance. In terms of the gardening metaphor, for N tense is budding while articles are flowering. Of course, future empirical research will need to verify our proposal.

### Transformation and Creativity

In this section we address the conundrum of predicting the future and at the same time allowing for transformation and creativity to emerge. We begin with a quote from Vygotsky that shows his commitment to the importance of creativity for what it means to be a human being: “It is precisely human creative activity that makes the human being a creature oriented toward the future, creating the future and thus altering his own present” [31, p. 9]. The basis of creativity is imagination, which is what enables “artistic, scientific, and technical creation” [31, p. 9]. Creativity is the result of “forms of imagination that are directed toward reality”, whereby the “boundary between realistic thinking and imagination is erased.” In fact, an accurate cognizing of reality requires an “element of imagination, a certain flight from the immediate concrete, solitary impressions in which

Table 4

**Learner N tense performance [1]**

Tense	Week	Moves	Move Sequence	Resolution	ZPD
	1	8	2,3,4,5,6,9,9,8	L (I will never forget)	3
	3	14	2,4,5,6,8,9,9,10,10,10 11,11,12,12	T	1
	3	1	1	L	4
	4	6	2,7,8,9,10,11	T	1
					Mean = 2.6

Table 5

**Learner N article performance [1]**

Article	Week	Moves	Move Sequence	Resolution	ZPD
	5	2	3,6	L	4
	5	3	2,3,7	L	4
	5	1	2	L	4
	6	4	2,3,2,2	L	4
	6	0	--	L	5
	6	0	--	L	5
					Mean=4.3

this reality is presented ... the processes of invention or artistic creativity demand a substantial participation by both realistic thinking and imagination. The two act as a unity" [31, p. 49].

Creativity is not limited to works of genius as represented in the art of Michelangelo or the equations of Einstein. Indeed, everything we use in our daily lives results from the "crystallized imagination" of anonymous and "unknown inventors" [31, pp. 9–10]. Without creativity and imagination humans would be limited to "reproduction of the old" and would consequently be unable to "adapt to the future" unless it merely "reproduced the past" [31, p. 9]. It is important to note that the quality of this transformation differs from what may occur in imitation, which we mentioned earlier. While imitation is a potentially transformative process, this transformation does not result from deliberate or intentional action. One can believe that imitation of a model is accurate even if the imitative act transforms the model, as in the example we discussed of conducting an orchestra. This process no doubt plays an important function in cultural and psychological change. The type of transformation we consider in this section, however, is different because it involves a conscious, intentional attempt to create something new. We suggest this is an approach to considering the conundrum that, to our knowledge, has not been fully considered and that merits additional research. The L2 examples we provide are intended to initiate such a line of research.

Imagination/creativity does not arise as a pure flight of fantasy but is in fact strongly linked to our previous experiences of reality, which we transform by combining aspects of these experiences in novel ways [31, p. 13]. This extends from fairy tales to technical objects that make our external life easier. Importantly, however, it also includes symbolic works of art, literature, music, etc. which influence our internal intellectual and emotional life [31, p. 23].

Vygotsky did not limit what counts as experiences of reality to those that are first-person encounters with the world. He also allowed for our ability to participate vicariously in the experiences of others [31]. This occurs, for instance, in school as we read and hear about events of the past, such as the French Revolution, or about places that we are not likely to visit, such as the African Desert [31, p. 16]. Contrary to what many may believe, adults on the whole, have the potential for more creative imaginations than do children. Given that imagination/creativity emerges from our direct and vicarious experiences of reality, it stands to reason that because adults have experienced more of reality than children, they have a far richer resource to draw upon. This occurs whenever when we confront novel circumstances that we are unable to adapt to by using our existing capacities and thus face an emotional or practical need to create something (internally or externally) new [31, p. 29].

According to Vygotsky "true creative imagination in all areas of creativity belong only to those who have achieved maturity. As maturity approached [sic], the imagination also matures" [31, p. 32]. While Vygotsky had in mind the maturation that occurs when we move

from childhood into adolescence and adulthood, we propose that the concept of maturity also applies to the accretion of conceptual knowledge that takes place in any domain as our experiences of that domain grow and expand. As an example, consider the process that unfolds in gastronomic development. Knowing how to fry an egg or follow a recipe, does not make one an expert chef with the skill to prepare novel culinary dishes. To do so minimally requires deep knowledge of how various ingredients combine to enhance taste, texture and appearance. This can only be achieved, with few exceptions, through a great deal of experience and education. Applying for a chef position in a restaurant, normally entails a demonstration of one's culinary ability. This includes a demonstration of such a basic skill as making an omelet as well as the ability to create a quality dish from a set of ingredients not seen prior to the job interview. To become an expert chef, as in any domain of human endeavor, requires an accumulation of experience that begins at the novice level where basic abilities such as following a recipe are established.

Analogizing from the culinary to the language domain, we argue that before one is able to use language with imagination it is necessary to first establish understanding of, and control over, the features and concepts of the language. To prepare a creative linguistic offering entails control over its essential concepts. In fact, verbal creativity indeed requires "a very high level of accumulated experience" [31, p. 43]. An indispensable contribution to the accumulation of necessary experience is made by formal education [31, p. 50]. Accordingly, education has the responsibility to build the foundation for creativity, which means it must broaden what a student "sees, hears, and experiences" because the more students experience the more productive will be their imagination [31, p. 15].

As an example of what we have in mind with regard to linguistic creativity we consider some evidence from a classroom study on the teaching of Spanish as a foreign language in a U.S. university setting. The study by Yáñez-Prieto [38] engaged a third-year (low-advanced) Spanish class focused on the relationship between everyday and literary language, including how figurative and creative language is used in both domains. One of the topics addressed in the course was how verbal aspect, a typically difficult area for speakers of English to master, can be manipulated to create emotional effects on interlocutors or readers of texts. To appreciate this process, we first provide a brief account of the conceptual meaning of verbal aspect as manifesting different temporal perspectives on events.

The key to verbal aspect is the concept of "boundedness." Objects and events in the world are said to be naturally bounded or unbounded. Thus, water, by its nature is an unbounded entity because it does not have specific boundaries. It can, however, become bounded when it is put into a container, such as a glass, bottle, river, or lake. It takes its form from the container. On the other hand, an object such as an apple, by its nature, is bounded by its outer skin. If we place apples in different containers, the individual apples retain their original form regardless of the shape of the container. Similarly, events that

occur in the world are by their nature either bounded or unbounded. Thus, walking and talking are unbounded because they do not have an inherent end point or conclusion. In theory, one could walk or talk ad infinitum. Events such as throwing an object or jumping are by their nature bounded because they have a definite end point. In the act of throwing a ball, for example, the act is completed as soon as the ball leaves the thrower's hand.

Spanish, along with many other languages, not including English, grammatically marks the distinction between bounded and unbounded events with different verbal suffixes. Thus, unbounded events are marked with grammatical forms referred to as imperfect endings, while bounded events are marked with grammatical forms referred to as perfective (or preterit) endings. This distinction, however, only holds when referring to past time events. Spanish does not mark the distinction for present or future events. To indicate that someone engaged in the activity of walking in the past, an imperfect suffix is normally used, as in Ayer, Juan *caminaba* por el parque 'Yesterday, John was walking through the park', where *-aba* indicates that the event is unbounded. To communicate that a bounded activity such as throwing a ball occurred, a preterit suffix is used, as in Juan *tiró* la pelota 'John threw the ball'.

Although verb endings often match the nature of events (i.e., imperfective for unbounded and preterit for bounded events), speakers and writers manipulate grammatical markers so that naturally unbounded events are treated as if they were bounded (similar to putting water into a glass), and bounded events can likewise be expressed as if they were unbounded (analogous to smashing an apple against a wall, resulting in its loss of boundedness as it smears across the surface of the wall). Thus, a speaker/writer can impart the fact that John walked to a particular place by combining a preterit suffix with a naturally unbounded event, thereby placing a boundary around the activity of walking, as in Juan *caminó* a la escuela 'John walked to school'. In a similar way, a speaker/writer can express the fact that John was in the act of throwing a ball, and therefore uses an imperfect suffix with a naturally bounded event, as in Juan *tiraba* una pelota 'John was throwing a ball'. Things become a bit more complicated in this case, as the example can mean either that John was in the act of throwing or that he threw the ball repeatedly (against a wall or with a friend).

Yáñez-Prieto [38] first presented her students with a visualized explanation [see 18] of the meaning of aspect followed by a one-page short story written by the Argentinian author Julio Cortázar. In the story, Cortázar plays with verbal aspect to create a different sense of how events can be made to unfold in ways that draw readers into the story in imaginative and unexpected ways. The short story demonstrated the fact that language features can be manipulated to produce particular effects on interlocutors/readers and that one does not need to always reproduce so-called "correct forms." Indeed, in his discussion of the grammatical and psychological structure of speech, Vygotsky presents a quote from a Pushkin poem to illustrate his belief that "what is a mistake from the perspective of [grammatical] language, may have

artistic value if it has an original source: 'Like rosy lips without a smile, I would not love Russian speech, without grammatical errors'" [33, p. 252].

Below is an excerpt from a story produced by one of Yáñez-Prieto's students with the pseudonym Emma that illustrates creative use of aspect. In the excerpt Emma's mother and father reveal to their children that their mother has been diagnosed with a serious illness. In the first part of the excerpt Emma uses imperfect aspect where one would normally anticipate use of preterit aspect. We translate the story into English and indicate verbal aspect with words instead of morphological endings:

But that night, my dad *did-imperfect* not bother us with his questions and my mom *did-imperfect* not even raise her eyes from her plate. That night silence was-*imperfect* not comfortable; it was-*imperfect* heavy and strong. It filled-*imperfect* the room, sinking my family, and my sisters and I crossed-*imperfect* worried glances. Something was-*imperfect* not right.

In the second part of the excerpt Emma recounts going to visit her mother in her room following dinner. In this case she used a mixture of imperfect and preterit suffixes:

I went-*preterit* down the stairs slowly, without feeling the treads under my feet. With each footstep towards her room my heart beat-*preterit* louder. When I arrived-*preterit* at her room, it was-*imperfect* dark and quiet and my mom was-*imperfect* in bed, with her eyes closed.

Emma explained her use of aspect as follows:

Although a lot of my paper could have been written in either imperfect or preterit, I tried to use each tense [sic] strategically to convey different meanings. For example, when I was talking about the moments when we were in the dining room in silence, I used imperfect to depict everything as if the reader was there in the middle of the action, seeing everything as it was happening. When I went to my mom's room to see her after I found out that she was sick, I used preterit for all the verbs. This time I wanted to show each action as a complete act.

Emma's use of aspect in the second excerpt is closer to what we might expect from a speaker/writer relating a typical story. She used the preterit to describe her movements toward her mother's room and the imperfect to describe the state in which she found her mother.

Commentary from another student reveals the insight he had regarding how grammar entails more than using 'correct' forms and that it can be manipulated creatively to tell stories:

It's kind of funny how you can have a grammar st ... the gram ... grammatical structure actually tell a story. I'd not really noticed that or seen that before. I mean, the words are telling the story and the grammar is telling the story, which is kind of weird. Yeah, I'd never seen that before. Interesting.

The comment from yet another student evidenced the conflict some experienced between reproduction, in which students are indoctrinated to believe that language use is about rule-following behavior, and creative ways to express oneself as intimated in Pushkin's poem:

This week we learned about aspect and perspective. I feel that I am starting to understand that there are many more uses for the preterit and imperfect than those in-



troduced in textbooks. It is *confusing* however to grasp the idea that the preterit can be used to describe something in the past, when we have been taught the “rules” that the imperfect is used for description in the past.

## Discussion

### *Reconciling the paradox and the conundrum*

The question that we are left with is how to reconcile the conflict between predicting future development while at the same time promoting imagination and creativity. We believe the answer lies in understanding the dialectical relationship between the two processes. A dialectical relationship entails a “a union of two or more internally related processes that are simultaneously supporting and undermining one another” [19, p. 49]. On this view reproduction is in conflict with the creative use of language in that creativity undermines yet depends on reproduction, for without the latter process there would be nothing to transform. On the other hand, creativity produces new possibilities of use that are potentially appropriated and reproduced by others in a constant developmental cycle. Reproduction is “a form of moveability by which one practice is constantly rebuilt and reproduced from its former form, with the variations” similar to our conductor example [17, p. 367]. A key moment in this process is what Hegel labelled *Aufhebung* ‘sublation’ in which components of the contradiction are simultaneously retained and transformed as a new totality emerges [17, p. 369]. As Vygotsky states:

the essential feature that distinguishes imagination from other forms of mental activity is that it does not repeat combinations of accumulated impressions but builds a new series of impressions from them. The very foundation of the activity that we refer to as imagination is the introduction of something new into the flow of our impressions, the transformation of these impressions such that something new, an image that did not previously exist, emerges. [33, p. 339]

Earlier we observed that Vygotsky considered a key to creative development to reside in the educational process. We argue that Yañez-Prieto’s project represents an important and to a degree successful attempt to realize Vygotsky’s contention. In her case, the experiences were provided by the reading of literature and then linking how language is used by recognized authors to how language can be used in everyday communication. It is essential to highlight that to move students to the creative stage of language use, Yañez-Prieto first had to guide

them into understanding the meaning potential carried by verbal aspect, and to mediate them into reproducing how it is typically used in everyday spoken and written communication. Then she exposed them to creative variations and how these can be used to impart an array of impressions of reality to interlocutors and readers. As a final step the students were provided with the opportunity to experiment with how the meaning potential can be manipulated to create particular impressions during communicative activity.

Clearly there are other means open to educators to promote creative language use, including the use of drama [see 10; 23], especially improvisational theatre [see15]. Through dramatic and improvisational theatre, the disturbances in equilibrium that Vygotsky saw as essential for stimulating imagination can lead to the emergence of creative activity. If there are no challenges confronting an individual there is no basis “to exercise creativity” because the individual would be “perfectly adapted” to the environment and “would not have anything to strive for, and, of course, would not be able to create anything” [31, p. 29].

## Implications

In our view, the dialectical contradiction between reproducing and transforming the future argues for a reconceptualization of the ZPD as comprising two components: a reproductive component and a transformative, or creative, component. While this goes beyond Vygotsky’s statements concerning the ZPD, we believe that he had to understand that the ZPD could not have been limited to reproduction, especially given the importance he assigned to imagination and creativity in an individual’s development. At this point, it is not clear that the two processes must occur in a fixed sequence such that in language development complete reproduction of all features of a language must take place before creative thinking and performance can emerge. It could be that instruction might focus on reproductive ability for a set of features while at the same time focusing on creative use of another set of features. How a diagnosis of development, the aim of DA, might take account of both reproduction and transformation, is another matter in need of further consideration. It may be that eliciting learner verbalization of reasoning underlying their performance might provide an opportunity to jointly explore possibilities for creative language use. Only future research can resolve this important issue.

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## Зона ближайшего развития, изучение второго языка и диалектика транспозиции/трансформации

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Зона ближайшего развития (ЗБР) имела «большое практическое значение» для образования, поскольку показала, как обучение может оптимально влиять на развитие учащегося — путем ориентации опосредования не на полностью сформированные способности, а на те, которые только формируются или «созревают» [30]. Несмотря на то, что это одна из самых известных и влиятельных идей в работах Выготского, она тем не менее подвергалась критике. Например, некоторые авторы предполагают, что Выготский ввел «методологический парадокс» при формулировке ЗБР [25]: ЗБР фокусируется на ближайшем или будущем психологическом функционировании, действуя через обучение в настоящем. По их мнению, это означает, что прямое эмпирическое исследование ЗБР невозможно, так как оно может быть выведено только ретроспективно, как только будущие способности станут новым настоящим [25]. Более того, Валсинер и ван дер Веер [25] утверждали, что описание Выготским ЗБР не согласуется с его приверженностью диалектическому мышлению, поскольку эта концепция не допускает создания чего-либо нового, а подразумевает «простой перенос из интериндивидуальной во внутрииндивидуальную область» [25, с. 48]. Подкрепляя наши аргументы примерами из исследований в области изучения второго языка (L2), мы предполагаем, что внимание к изменениям в характере опосредования, которое требуется учащимся в рамках ЗБР, позволяет нам наблюдать за будущим по мере того, как рассматриваемые способности переходят из «созревающих» в статус «развитых». Таким образом, будущая самостоятельная деятельность учащегося переносится в настоящее в диалектическом процессе, в ходе которого противоречие между фактическими способностями учащегося и требованиями задачи разрешается посредством сотрудничества между посредником и учащимся. Мы видим этот процесс как способ реализации «методологического императива», к которому стремился Выготский [26]. В завершение мы рассматриваем важность взаимосвязи между переносом учащимся идеальных языковых характеристик, представленных в процессе обучения, и развитием способности творчески манипулировать этими характеристиками, чтобы формировать то, как другие конструируют объекты и события в соответствии с личной точкой зрения пользователя.

**Ключевые слова:** зона ближайшего развития, методологический императив, динамическая оценка, прогноз, трансформация, транспозиция, креативность, диалектика.

**Для цитаты:** Понер М., Лантольф Дж. Зона ближайшего развития, изучение второго языка и диалектика транспозиции/трансформации // Культурно-историческая психология. 2021. Том 17. № 3. С. 31–41. DOI: <https://doi.org/10.17759/chp.2021170306>

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Получена 10.08.2021

Принята в печать 09.09.2021

Received 10.08.2021

Accepted 09.09.2021