
DISCUSSIONS AND DISCOURSES
ДИСКУССИИ И ДИСКУРСЫ

A Discussion about the Development of Higher Mental Functions in Brazilian Schools: A Portrait of Excluding Inclusion

Sueli Salles Fidalgo

Federal University of São Paulo, Brazil

ORCID: <https://orcid.org/0000-0001-6533-2346> e-mail: susadalgo@gmail.com

Maria Cecilia C. Magalhães

Pontifical Catholic University of São Paulo, Brazil

ORCID: <https://orcid.org/0000-0002-8567-0358> e-mail: cicamaga@gmail.com

Lucineide Machado Pinheiro

Federal Institute of São Paulo, Brazil

ORCID: <https://orcid.org/0000-0002-8114-7308> e-mail: lucineidepinheiro@yahoo.com.br

This paper aims at providing an overview of Brazilian schools focusing on the development of Vygotsky's concept of Higher Mental Functions (HMF), especially in the case of students with disabilities. We often see that a lack of appropriate teacher education leads to further excluding students and others involved in the teaching-learning processes — such as the educators themselves, who feel increasingly overwhelmed by their classes of 45 to 60 students, shortage of money and governmental investment. We can even say that Brazilian official schools are immersed in a conflicted-conflicting, alienated-alienating and oppressed-oppressive contradictory reality that is increased by this exclusion-inclusion dichotomy that hinders teachers' and students' participation in dialogically organized activities [9; 30; 23]. This diminishes students' possibilities for developing HMF, which require an argumentative, critical language organization not often accessible to students whilst they continue to be educated on the receiving end of a system that is based on principles of assistance, as are the teachers. With this in mind, the text aims at answering the following question: To what extent are HMF pursued in classrooms allowing young people with(out) specific educational needs to develop (as close as possible) to their fullest potential?

Keywords: Higher Mental Functions, children and adolescents with disabilities, specific educational needs, context-bound education.

For citation: Fidalgo S., Magalhães M.C.C., Pinheiro L.M. A Discussion about the Development of Higher Mental Functions in Brazilian Schools: A Portrait of Excluding Inclusion. *Kul'turno-istoricheskaya psikhologiya = Cultural-Historical Psychology*, 2020. Vol. 16, no. 3, pp. 87–96. DOI: <https://doi.org/10.17759/chp.2020160310>

First words first

This paper aims at discussing the development of Higher Mental Functions (HPF) in their relation to the education of children and adolescents with (or without) specific educational needs or disabilities in impoverished school contexts mostly in the outskirts of a large city (São Paulo) in Brazil. We show that certain circum-

stances might affect or hinder education, and more specifically the development of HMF, especially in times of the pandemics¹, in a context that encompasses (1) the lack of financial means for families to support their children's distance learning in the current social-educational situation (imposed by COVID-19), for example, and where (2) schools and universities had to interrupt their activities for months in order to search for financial sup-

¹ We refer to COVID 19 that has been considered a pandemic by the World Health Organization (WHO) that have urged everyone to stay at home in the early months of 2020 – and possibly until mid-2020 at least.

port to try to provide students with computers and internet services for some educational work to be resumed. Nonetheless, in the outskirts of São Paulo, most teachers report not having any contact with 50% to 80% of their students during most of the school year, which initiated in March 2020, a couple of weeks before everyone was instructed to stay at home.

Moreover, lack of information about the pandemic and shady political stances, have led to other complications that affect education: teachers' wages can now be cut down on the premise that if they are not going to school, they should not receive some of the benefits to which they were entitled. However, the decision to cut down on salaries does not take into account that teachers are using their own electricity, paying to upgrade their computer (application) software and to have access to improved internet services in order to work with students. There is no financial benefit from the part of the government for this. Let us clarify that we are speaking of people who sometimes earn between one and two minimum salaries per month² for a teaching position of twenty hours per week – which means at least 10 more hours of planning, correcting and marking tasks on a regular week (one that has not been affected by the pandemics). Let us clarify further that the work is greatly increased when everything is carried out by distance learning. And to make matters worse, many (we dare say most) teachers do not know how to use the applications provided on the internet. So, they also need to learn at a rapid pace in order to use them. This may require them to spend some money on crash courses besides the equipment upgrading.

Some teachers, as well as most students attending public schools are in the group 14 million Brazilians that are considered impoverished. These are people that live with less and US\$1.9 per day. Some of the students in this group attend school in order to make their daily balanced meal. With the pandemic, they are not receiving this benefit. So studying or purchasing equipment that might enable learning processes is not an option. In fact, there are school principals and teachers who are themselves campaigning to gather food and clothes for households in need. And they take the bags of groceries and clothes from house to house, sometimes entering and preparing the food for the children, cleaning the houses when the parents are unable to do so for reasons of health, disabilities or even drug/alcohol abuse. These teachers and principals are, therefore, putting themselves at risk to help provide for small children who have no one to take care of them. And many times, they are doing so by going into slums, where houses are built so close together that it is a wonder that the pandemic has not affected every individual, the entire community at once³. Needless to say, some of these teachers and principals are getting sick.

Bearing this context of social exclusion in mind, it is important to also clarify the general situation of stu-

dents with specific educational needs (SEN) in Brazilian schools. Prior to the quarantine, most students with SEN were already excluded from the classrooms where they ought to have been included – a result of poor teacher education, as we have discussed in many other occasions [3; 4; 5; 6; 7; 29; 28]. This is often due to lack of knowledge from the part of the teacher (or lack of education to work with children/adolescents with additional needs), as the data excerpt below informs:

C5: There is no pedagogical meeting for the design of different activities for students of inclusion⁴. Most meetings are used to discuss bureaucratic stuff: absent students, poor behavior, students that are sick and need to receive activities at home, I mean, there are so many things.. we unfortunately don't have time to adapt the curriculum.

Researcher6: Taking into account the changes in educational context and public policies regarding the process of inclusion and the need for the school to guarantee learning to all students, can you tell me what you think is the teacher's role today?

C6: I mean... I try to do something that is close to adapting the curriculum, but I can see that there is no guidance. We miss something that may help us to understand what inclusive education is about (...). I need to learn before I can be requested to do something.

Researcher7: Have you ever had any teacher education regarding inclusive education that might help you to adapt activities for the students?

C7: No. Never.

Researcher 8: And what about here, at school, any course about that theme?

C8 Not that I remember, no. Except for the talk you gave us. [31, p. 133–134].

With the new world order, the situation of students with SEN has become worse, and to a greater degree because parents do not know how to work with their children when they present additional needs. However, we must clarify that most of the data provided here is not from the current moment of home schooling. We mostly discuss data collected from regular classroom periods, involving interactions between students with special educational needs and teachers, but we base our statement that the learning situation has worsened on interviews and research carried out with parents, in which most have similar statements as the one below:

Mother of boy with intellectual disability: I have to admit that it is a challenge... I mean, I am at home and can support him. If I don't, he won't do anything because he gets distracted really easily. But I don't know what I would do if I had to go out to work everyday and had no one to leave him with or to help him with his homework. I can see that he is improving, slowly, but he is. But, for example, I have a niece who also has intellectual disability and she is not doing anything. Her mother can't help because she has to go work. So she just plays the whole day. It's a school year with no learning.

² The minimum salary in Brazil is currently just under US\$184.

³ For more information on the context referred to in this paper, please refer to Fidalgo [4; 5; 6].

⁴ Many educators in Brazil refer to students with specific needs or disabilities as students of inclusion when they attend regular schools.

And teachers' statements, informing that:

*I have about 430 students, but I could only contact about 90 in these last 6 months. No matter how much I try, by phone, email, etc., I receive no answer from most of them*⁵.

After explaining, in a nutshell, the general situation of Brazilian schools and their students, we turn to the questions that we aim to answer here: to what extent are HMF pursued in classrooms allowing young people with and without specific educational needs to develop (as close as possible) to their fullest potential? And how does/should learning take place so as to ensure this development? We begin by discussing the concept of HMF. After that, we discuss the concepts of collaboration and the organization of argumentative texts — showing how they might enable or be linked to the development of higher mental functions. We anticipate that the discussion is likely to be better understood with the examples — data drawn from theses and dissertations that have been completed in graduate programs where we supervise young researchers. And we finish with conclusive remarks, fully aware that it is not by far the end of this discussion.

Higher Mental (or Psychological) Functions

The concept of Higher Mental Functions is one of the most important in Vygotskian work — especially for researchers investigating the teaching-learning processes of people with disabilities. Higher Mental Functions are what makes humans unique as an animal species. One can infer from this that denying people with additional needs the means for developing HMF is denying them at least part of their humanity.

About his studies in this area — which, according to González Rey [12], can be considered the core of the second phase of Vygotsky's work — Vygotsky [37, p. 97] says:

(...) the uniqueness of this process of development of higher forms of behavior that comprises the subject of our research is still inadequately recognized by contemporary psychology. The cultural development of the child, as we have attempted to establish (...), represents a completely new level of child development which not only is still inadequately studied, but usually has not even been singled out in child psychology.

Encompassed in the notion of HMF are such functions as voluntary attention, memory, perception, behavioral control and, more importantly for our studies, language. These functions are socio-culturally and historically developed, i.e., they require socio-cultural-historical relations to take place in order to be developed, and follow a dialectical process: language (speech) as a cultural tool mediates the organization of collaborative

loci that allow for relationships that are socially contextualized to produce cultural experiences through which humans produce meaning of the very experiences that they have and that they enable for others. As González Rey [12, p. 65] puts it, Vygotsky “explicitly presents his idea of higher psychological functions as functions that are regulated by signs that are culturally developed and used for the production of a new type of human behavior (...).” In Vygotsky's own words [35, p. 130], “Just as speech serves as the basis for development, so, too, does the external form of collective collaboration precede the development of a whole series of inner functions”.

However, in so-called bilingual classrooms for deaf students learning Portuguese, we find teaching interactions justified with such explanations as:

I2: *[...] the work we do is really repetitive, you know?*
(...)

I21: *No, I don't think it is only an activity... I mean, it is an activity, but... it has to be that way, repetitive.... Do you understand? You repeat and repeat in several different ways and...so that they can really internalize that... that word, really, learn how it's written you see? Because I know that they have learned the sign, but writing is difficult.*

(...)

I42: *(...) it is pointless for me to show them lots of words if they do not know the sign (...) so it is really a repetitive work, something that you have to do day in, day out, you repeat the words, like you repeat their names, every day, because they know their signs... [25, p. 150].*

The above excerpt was taken from a Reflective Session [16]⁶, in which teachers and teacher educators discuss a lesson that was video recorded. As we can see, it was about deaf students and their teacher's interaction. Students were in Primary School. However, the same approach is seen in a High School classroom with deaf students, as the following data exemplifies:

J4: *We were continuing from the last class, you see? Because the coursebook brings a number of exercises [...] and I require them to do these. [...]. If they don't, you know??? They need to train, they need training. If they are taking a governmental exam and this content is in the test, something... and they don't know how to do the task... So they have to do the exercise. (...). [28, p. 302].*

In such contexts, we can see that the collective collaboration is still dictated, top-down, it is still one in which students will learn how to repeat and copy, and/or learn by translating words from Brazilian Sign Language (Libras) to Portuguese and vice-versa.

However, Vygotsky [37, p. 101] explains that for HMF to be developed, one needs to consider that

Intellectual reaction (...) differs in many essential characteristics of origin and function, cannot be placed in the same order as mechanical formation of habits that arise by trial and error (...)

⁵ The mother and the teacher quoted here have reported their situation during the XVIII Forum in Linguistic Inclusion in Scenarios of Educational Activities; I Colloquium in Social-Educational Inclusion and Teacher Education, II Colloquium Studies in Deaf Identity and Culture and II Colloquium in Inclusion and Accessibility Nucleus — a conference held at the Federal University of São Paulo in September 2020.

⁶ Reflective session is moment in teacher education in-service programs in which participant's actions are looked at and challenged.

Thus, according to Vygotsky's work, what makes humans unique are features that they do not have from birth, nor do they develop naturally; features that are constructed within the individual's dialectical interaction with the environment where s/he lives, works, studies, i.e., with his/her communities of practice, considering that

Every higher psychological⁷ function occurs twice during the process of behavioral development: first, as a function of collective behavior, as a form of cooperation or cooperative activity, as a means of social accommodation (i.e., on an interpsychological plane) and, again, a second time, as a means of a child's individual behavior, as a means of individual adaptation, as an inner process; that is, on an intrapsychological plane. [36, p. 192].

These are functions that differ from the Elementary Mental Functions as the latter are biologically, organically developed. It does not seem to us that HMF are usually developed by copying, repeating and translating in between languages – the latter being a skill whose pre-requisite is having a lot of intercultural knowledge, and the formers being tasks (i.e., copying and repeating) usually carried out individually rather than collectively.

The HMF are then merged with the person's natural features, converging to form his/her unique sociobiological personality. Again, in Vygotsky's [34, p. 42] words:

A normal child's socialization is usually fused with the processes of maturation. Both lines of development – natural and cultural – coincide and merge one into the other. Both series of changes converge, mutually penetrating each other to form, in essence, a single series of formative socio-biological influences on the personality. Insofar as physical development takes place in a social setting, it becomes a historically conditioned biological process.

It seems therefore, that by requesting the child and adolescent to endlessly copy, for at least 8 years (from 5th grade – Primary and Mid-School – to 3rd year High School), our educational system is trying to promote the development of HMF as if these were biological, at the tip of the students' fingers.

If we consider that, in the case of our work, that led us to investigate the HMF and write this paper, was Vygotsky's [35] statement that the general principles that lead the development of children with disabilities are the same that guide any human development, we see that there is something terribly incorrect in the classrooms depicted here. The tasks provided to deaf students focus on the disability, focus on the assumption that, if a child or adolescent is deaf, they will only learn Portuguese from repeating, copying and translating

However, a child with disabilities is not simply that, i.e., s/he is not simply *the disability*. Vygotsky [35, p. 123] states that

It is impossible to be guided only by what a given child lacks, by what he is not. On the contrary, it is necessary to have some conception, even if the most vague understanding, of what his capabilities are and what he represents. In this vein the bourgeois school accomplished exceedingly little.

And he claims that the same misleading idea is used to understand children without disabilities, when he states that

All methods used thus far for studying the behavior of the normal and the abnormal child, regardless of the great variety and differences that exist between them, have one common characteristic that links them in a certain respect. This characteristic is the negative description of the child that results from existing methods. All the methods speak of what the child does not have, what the child lacks in comparison with the adult, and what the abnormal child lacks as compared to the normal child. (...) Such picture tells us nothing about the positive uniqueness the child from the adult or the abnormal child from the normal child. [37, p. 98].

In many Brazilian schools, this statement still holds true, i.e, children are assessed as per what they lack in comparison with the adult. For this reason, sometimes, we will find schools that teach by filling up a board with information or by lecturing as if trying to squeeze as much information inside the child's seemingly "empty" mind:

S17: So, in this lesson, I actually was continuing to explain the content of last class because it's in the 9th grade planning; we have to teach grammar aspects such as subordinate clauses and adverbial subordinate clauses. How was I supposed to do that without reminding them of what an adverb is? (...)

S18: So, I thought of a lecture, you see? With the objective of reteaching them the concept, in a more superficial manner because, in fact, I was just reminding them. (...). [27, p. 299].

Contrary to this teaching methodology, Vygotsky's work seems to show us that to understand the child's capabilities and how children make sense of the world, we need to understand that the general human processes of development are socially derived, and later internalized, and further understand the responsibility that this statement alone poses for the school, the teachers and everyone who works with children and adolescents with(out) additional needs. If, as stated by Vygotsky, the development of higher forms of behavior is the key for the social development of all children, and if social development is achieved in social interactions and engenders psychological advancement, then, the organization of collaborative relationships is also the key to developing HMF, as we discuss next.

Collaborative settings and argumentative language frame: enhancement of HMF

Based on Marxist tradition, Vygotsky sees the role of collaboration as a central element for the construction of loci that may allow shared participation in schools. This is clear, for example, when the author argues that

Only with the increasing socialization of the child's speech and all of the child's experience does development of the child's logic occur. It is interesting to note that in the development of the child's behavior, the genetic role of the

⁷ Same as Higher Mental Functions.

group changes, higher functions of thinking are manifested in the beginning in the group life of children in the form of arguments and only later lead to the development of reflection in the behavior of the child himself. [37, p. 103].

As we can see from the quotation, another fundamental element in Vygotsky's view is language, since it is the blend that enables shared participation and allows reasoning to be revisited and re-signified many times throughout life. However, as the excerpt below shows, for many students who are deaf, the bilingual school — despite its limitations as we have shown here — is the first moment in which they will have contact with any language, i.e., prior to their first day at school, deaf children who are born in hearing families, whose members often do not know Sign Language, will have no contact with a language *per se*⁸. Until then, these children and their families develop some signs (in Brazil, these are called family signs) that will enable them to ask for their basic needs (water, food, having a shower, etc.).

B34: I think that it is the first language, it is the language in which... in which they will have knowledge of the world. Because they arrive here, and they, especially the children who have never had any contact with the language, with Libras, you see? They live in a world of hearing people, and for them the world has no meaning (...) then they come here, they discover a world, "now I can communicate, now I can... now... I have found my language, right?" [25, p. 156].

Since most deaf children in Brazil are born in hearing families who do not know Sign language, and since medically, deafness is still treated as a disease — i.e. it needs to be cured — parents do not learn Sign language even after discovering their child's deafness. They treat the child for the "disease" and, in some cases, force them to speak Portuguese, while, in others, simply rely on the "family signs" created in order to communicate the basics. In both cases, the deaf child is educated to believe that s/he is never going to be able to live a "normal" life. They only realize that this is not true when they go to school and meet other children and adults who are also deaf. Then they begin to socially construct a different idea of themselves and to understand the world differently. "Through others, we become ourselves", says Vygotsky [37, p. 105]. This reinforces the relation between the interpsychological and the intrapsychological planes in the learning-development process, but it also clarifies that "(...) cultural development is based on the use of signs and that including them in the whole system of behavior occurred initially in a social, external form [37, p. 103].

Nonetheless, as the excerpt shows, many teachers see the language that is taught to the deaf child as having solely the function of communicating. This function, i.e., language used for communication, which the hearing child masters at a very early age, the deaf child will begin to learn when they go to school (and if their parents find a bilingual school for them, i.e. one that can teach them Bra-

zilian Sign Language)⁹. Until then, as mentioned earlier, they will have created a few signs that will allow them to request what they need, but most of the communication that takes place in a family will not include the deaf child — for lack of a shared language *per se*. So, for example, during the pandemics, the child may not even know the reason why s/he is not leaving the house, why no one visits. If s/he has started to attend school, but stopped due to the period of social isolation, s/he may not even know the reason why. Further developments in/with language, such as, for example, the child's ability to negotiate senses and meaning or challenge points of view (i.e., the person's argumentative skills), thus developing critical thought may not be the focus in the early years¹⁰.

It is decisive that collaborative work is part of the school environment, so as to create a place where everyone feels at ease to discuss themes as broad and ideologically set as the political role played by school agents (the teachers, for example) in decision making moments of theoretical-methodological paths, of school material and the classroom organization itself. In Brazil, since 2016, schools are told to avoid discussions that are ideological because ideology has been considered as synonymous to political party activism. Therefore, many schools, many classrooms are becoming even more dictatorial establishments, i.e., places where there is no room for discussion and difference of opinion, which means no room for the students to learn how to think argumentatively. As a matter of fact, the number of militarized public schools in Brazil had increased 212% by mid-2018.

The school — the environment *par excellence* to create the possibility for the child to access cultural tools, thus developing cognitively — may do so by vertical, and therefore dictatorial, organization, or by a more collaborative environment, i.e. more horizontal decision-making and task distribution, one that will cross fragmented cultural borders of individualism. In both cases, language plays a very important role: in the latter situation, the kind of language that circulates and is taught is argumentative, allowing students to see the pros and cons of each position taken by those that participate in the activity. In the former, language is used to make announcements, not for communication [9], it is used to tell others what to do, how to act; language is a power-related tool and a strong power-enabler.

Brazil has been failing to recognize that this misleading duality exists both in schools and in school policies. There is still very little work on how children learn; their skills are not taken into account, while their shortcomings are. In other words, their limitations are often pointed out to justify the reason why the children are excluded even within the so-called inclusive school. Therefore, their zone of real development, as well as their often background of scarcity are pivotal to forming an

⁸ School age in Brazil is from 6 to 14 years of age. Some children may go to pre-primary schools, but this is not compulsory.

⁹ There are only seven in São Paulo.

¹⁰ In São Paulo, deaf children stay the initial 4–5 years in a Bilingual school — if there is one available and if there are vacancies in this school. Then, they go to a regular school — preferably one with a bilingual classroom, if there is one available. In the latter, they learn Portuguese. It is understood that they will have learnt how to communicate in Sign Language at the end of the fifth school year.

image of the child that will stay with him/her for the rest of their school years. What they could develop within the school, collaboratively and argumentatively is not considered. In this environment, teachers will inevitably feel frustrated – even angry – because they feel (or maybe they were taught to think) that it is their duty to deal with the “problem” they have in the classroom. This is clearly seen from the choice of words used by the teacher in the excerpt below:

*E2: I still think that inclusion is **only seen on paper**. In practice, despite our attempts, this **creature** will be **kept separately**. I may bring specific material to work with him; I may flexibilize the material, and he is being treated differently. I think that inclusion should make him equal to others, and if I have to do something specific, different for him, I am not making him equal. On the contrary, if I do things differently, then he really is excluded like a **vase** in the classroom. (...) even if we try (...) I still think that they **remain excluded** (...) they are still there, in **their own little world**. We don't have the necessary time to give them the necessary attention with these classes with forty students, (...) and the **teacher's role, unfortunately is not only to explain content, but to take care, keep an eye on them, make sure they don't kill themselves**. When I sit to do something different, (...) I have to use at least 20 minutes from my 50-minute lesson with this student... so I have to reduce everything to make him understand in 20 minutes (of which, ten will be used to ask the class for silence: “People, please stop! I'm trying to speak here.”) It's complicated. I think that inclusion is a **fallacy**; we have it on paper; we try, but we actually don't have inclusive classes yet. [31, p. 85].*

This considered, one would think that more studies would be taken into account to think of educational policies. This is not the case. Few studies are carried out focusing on how students deal with their specific needs or disabilities, and there is a blatant disregard for these studies from a political point of view. More often than not, there is very little consideration given to the many cultures that congregate in the same classroom. All teaching is provided following a top-down and transmissive perspective, designed for an ideal student and what he/she should be able to accomplish in each given term. Therefore, in a class of 40 non-ideal students, as the one depicted in the excerpt, one would expect a great deal of frustration and a strong dose of disbelief in policies.

The language used mirrors what Gee [11, p. 42] explains when pointing out that the language organization usually seen in schools is one that is “disconnected from the transformations of society and supported by systems based on an authoritarian and pyramidal hierarchy (...).” And we can add that teachers themselves are often dealt with in a pyramidal relationship by policy makers, principals, heads of educational departments, among others. Therefore, the process of shared and collaborative knowledge production, organized in the form of questioning, challenging, negotiating meaning – advocated by Vygotsky, as well as Freire [9] and the followers of his Critical Pedagogy (McLaren, Giroux, Kincheloe, among others) – is denied the student, especially if s/he has ad-

ditional needs. As we could see in the previous excerpt, the teacher sometimes has twenty minutes to talk to the student who has specific needs, and even these might be cut short. Students, therefore, are often granted the right to copy from the board and complete repetitive tasks aimed at educating people who will repeat actions rather than delve in challenging the *status quo*, as well as problem-solving and creative ideas, which would require, according to Freire [10], that schools turn from the narrative by the teacher to the involvement of students in critical actions that challenge unsubstantiated power and seek social justice. They need to regard the students' life stories as stories of possibilities rather than of determination [10]. And in the case of children with additional needs, schools, policy makers, and everyone that is involved in education, need to remember that any disability is “miniscule in comparison with the colossal areas of wealth which handicapped children possess” [33, p. 68].

By the same token, the dialogical approaches of Vygotsky's late works (1930–1934) and Freire's critical dialogue (which he considers central for the development of students' critical thinking) stress the key role of argumentation in the organization of classrooms teaching-learning and development. In the classroom, collaborative relationships and argumentative organization of language use enables participants to act so as to place their points of view in relation to what others have said, thus agreeing, disagreeing, expanding ideas, requesting that ideas be expanded to further the understanding. This involves contradiction of senses that have been put forward, since these senses have been socio-historically constituted in and through the several experiences that each individual has lived. Therefore, collaborating requires the creation of cognitive and affective conflicts that are inseparable from each other, leading to the organization of critical dialogues [9] which, in turn, allows for a collaborative process to take place, besides shared internalization, productive interdependency, construction of new and shared meanings that may transform the object under discussion.

One could call this, as does Mateus [24, p. 9], a pedagogy of argumentation, since knowing how to use the argumentative text “broadens the potential for democratic participation when it allows for differences to be openly discussed and positions reviewed.” Besides, in these environments, differences (or positions) can also be safely discussed, since the debate is not sought as a means for defeating one's opponents, but for jointly constructing new meaning and knowledge. In other words, even though the teacher (or the principal, the coordinator, the policy maker) may be stronger in the position they occupy, the collaborative environment, contrary to the dictatorial environment, will have to make room for other arguments to be evaluated as more appropriate *as per* the situation discussed.

It is important to emphasize that this critical-collaborative language organization requires the involvement of everyone – the teachers and the students (regardless of age or of the specific needs that they may have). It aims at intentionally listening to and understanding the

senses that are put forward by the others (peers, teachers, anyone), and requesting-providing clarification before another point of view is presented. In Bakhtinian terms, this was called responsive listening. Participants must listen attentively so as to probe into words with a view to clarifying them and thus, better collaboratively constructing the meaning/knowledge under discussion. As a coordinator of the whole teaching-learning process, the teacher, rather than providing answers, will (even with students from very early ages) pose questions that are organized to request clarification and argumentative support — which could be presented in the form of theories that support the meaning being constructed, or explanations, examples (any of the known forms of support in an argumentative text). Liberali [14], discussing Adam and Bonhomme's [1] forms of argumentation, concludes that one may also provide arguments by describing something and by telling a story, which will evidently differ in the textual organization.

In other words, "the concept of collaboration has always a critical co-participation focus, since it is organized by means of a dialectical process that shapes participants' relationships through the argumentative language [19, p. 5].

It is thus our premise that a collaborative language organization, achieved by means of argumentation, may create interdependent cognitive and affective conflicts that allow for shared internalization of the object being discussed, with a view to developing a collective and transforming view of this object. John-Steiner [13, p. 188] illustrates the key importance of collaboration for knowledge production when stating that: «Through collaboration we can transcend the constraints of biology, of time, of habit, and achieve a fuller self, beyond the limitations and the talents of the isolated individual.»

Along the same lines, the work carried out by Magalhães and followers [8, 17; 18; 19; 15; 20; 21; 22; 26], in the last 30 years highlights the understanding that collaboration is a process, placing activities (in this case, activities carried out in schools) under constant review and requiring participants to work together so as to comprehend and transform the world whilst transforming themselves in the world, both the specific and the broader collective contexts in which they are involved (including the transformation of society *per se*), i.e., collaborative work is constant, it is a co-construction of the world, and one that requires a language organization.

However, collaboration requires that teachers also be collaboratively educated. The excerpt below exemplifies this. It is data collected in a reflective session. Questions asked here allow the teacher to clarify what she is doing. They also should allow the teacher and the teacher educator to create an atmosphere in which the teacher can confront her senses about teaching, education, her students. The teacher educator (here also the researcher) cannot be the ole knowledge producer and provider. So, challenging what is said is a process leads to confronta-

tion of senses whilst avoiding the researcher from taking a top-down position.

N¹³: *I am very anxious all the time. I want to see results quickly. I would like to be different, but perhaps because **I have been just like them**, I try not to raise a lot of barriers between us, do you see?*

S4: *What do you mean... **why do you think you have been like them?***

N4: **POOR!** *Just like them because...(…) there are some colleagues that think they are superior and don't get involved with the children. And this ... this makes me... a little...I try to... I may make mistakes because I think that sometimes **I am not playing my role as a teacher**. Sometimes, I am a mother and I think this may jeopardize teaching. I think I should keep a bit more of a distance, but I can't. So, I think this is where I am wrong. I wish I could improve.*

S5: *But.... if you **think of the lesson that you taught...** the one I recorded, in which moments do you think you did not act as a teacher? Or, in other words... **what do you consider to be the roles of a teacher?***

N5: *Ah! Moments in which I see that a child did not do her homework (...) I call them, I talk to them and I ask them what is happening. I talk to each one, do you see? I try to raise their awareness. I would like to bring them to the coordinator's room, but then... I think: "talking to them might be better."*

(...)

N8: *I could have used the book, right? And then, I think... "Am I right?"*

S9: *So, again... **in order to answer this question, we need to go back to that question about roles**. What role does the course book have for you? When you say "I could have used the book" but decided not to. When you say that you decided to ask them to create their own math's problems, why are you in doubt about acting correctly? **Do you think that the book is sovereign?** [20, p. 335–336].*

As the dialogue shows, it is a matter of going back and forth in one's knowledge construction process. So, it may take a few extra turns for the questions to be raised again. We believe that by teaching about collaboration and argumentative reasoning, we are educating teachers. However, by using collaborative tools and argumentative reasoning with them (in the teacher educator's meetings and programs) we are modelling what this rather difficult organization can be employed. Both moments are important to allow teachers to go from a repetitive, top-down, transmissive lesson organization to one that might allow students to exercise their critical thinking and thus critically develop their HMF, regardless of whether they have students with or without specific needs in their classrooms. After all, the data discussed here shows that they are educating all students to solve exercises, but not problems, to repeat tasks, but not think about the roles that these tasks have in their education. And when a teacher uses a little bit of creativity — as does the mathematics teacher above — she feels guilty that she is not conforming.

¹¹ N is a Mathematics teacher; S is Sueli Fidalgo.

In lieu of conclusion

We aimed, in this text, to discuss, albeit briefly, the concept of Higher Mental/Psychological Functions, more specifically that of language, in its relation to concepts such as collaboration and argumentation. We also aimed at looking at school practices and the language used in school environments, discussing the extent to which this may allow for HMF to be developed. We argue that if we want children to go beyond the practices of repetition, and to have the possibility of social inclusion, it is necessary that these children be educated

within a collaborative, argumentative perspective, one in which language is not taught with a view to simply allowing for communication to take place, but also to analyze, assess practices, negotiate senses/meanings, resignify points of view, supporting one's ideas and taking into account those of others. Unfortunately, data shows that this type of linguistic practice is rarely seen in the Brazilian school environment today. We do, however, remain truthful and strongly supportive of education because it is our strong belief that even if education alone does not transform the world, without education, there is no change at all [9].

References

1. Adam J.M., Bonhomme M. *L'argumentation publicitaire: rhétorique de l'éloge et de la persuasion [Advertising arguments: rhetoric of praise and persuasion]*. Paris: Nathan., 1997.
2. Camporez P. *Número de Escolas públicas "militarizadas" no país cresce sob o pretexto de enquadrar os alunos [Number of "militarized" public schools in the country grows under the pretext of framing students]*. Goiânia: Epoca. July 23rd, 2018. Available at: <https://epoca.globo.com/numero-de-escolas-publicas-militarizadas-no-pais-cresce-sob-pretexto-de-enquadrar-os-alunos-22904768> (Accessed 19.15.2020). (In Portuguese).
3. Fidalgo S.S. Cultural-historical psychology and activity approach in training specialists in special education. Brazilian teacher education for inclusive work (or lack thereof). In Yangicher E.V. (ed.), *The materials of international symposium. Scientific School of L.S. Vygotsky: Traditions & Innovations*. Moscow, 2016, pp. 76–84.
4. Fidalgo S.S. (Teacher) education in contexts of exclusion-inclusion dichotomy: an experience. *International Scientific and Practical Conference: transformation of human potential in the context of the century*. Nizhnii Novgorod, 2017, pp. 46–53.
5. Fidalgo S.S. Social compensation and the development of higher psychological functions: theoretical path and methodology for teacher education. *The Geography of Childhood: An Interdisciplinary Synthesis of Research Approaches and Practices*. Vladivostok, Saint. Petersburg, 2018a, pp. 13–16.
6. Fidalgo S.S. A linguagem da exclusão e inclusão social na escola [The language of social exclusion and inclusion at school]. São Paulo: Editora Unifesp., 2018b. 270 p.
7. Fidalgo S.S., Magalhães M.C.C. Formação de Professores em contextos de inclusão: a discussão vygotskiana do conceito de compensação social [Teacher education in contexts of inclusion: the Vygotskian discussion of the concept of social compensation]. In Celani M., Medrado B. (eds.), *Diálogos sobre inclusão: das políticas às práticas de formação de professores em línguas estrangeiras [Dialogues about inclusion: from policies to practices in the education of teachers of foreign language]*. Campinas, SP: Pontes Editora., 2017, pp. 63–96.
8. Fidalgo S.S.; Magalhães M.C.C. The method in Vygotsky: social compensation to achieve higher psychological functions and social changes. In Tanzi Neto A; Dafermos M., Liberali F.C. (eds.), *Revisiting Vygotsky for social change: bringing together theory and practice*. New York: Peter Lang, in print.
9. Freire P. *Pedagogia do Oprimido [Pedagogy of the oppressed]*. Rio de Janeiro: Paz e Terra, [1970], 2000.
10. Freire P. *Pedagogia da Autonomia [Pedagogy of autonomy]*. Rio de Janeiro: Paz e Terra, 1996.
11. Gee J.P. New people in new worlds: networks, the new capitalism and schools. In Kalantzis M., Cope B. (eds.), *Multiliteracies: Literacy learning and the design of social futures*. London: Routledge, 2000, pp. 41–66.
12. González Rey F.L. O segundo e terceiro momentos da obra de Vigotsky: história e desenvolvimento das funções psíquicas superiores: a afirmação de uma teoria histórico-cultural sobre a psique [The second and third moments of Vygotsky's work: history and development of higher psychological functions: the affirmation of a cultural-historical theory about the psyche]. In González Rey F.L. (ed.), *O pensamento de Vygotsky: contradições, desdobramentos e desenvolvimento [Vygotsky's thought: contradictions, outcomes and development]*. São Paulo: Hucitec Editora., 2013, pp. 63–110.
13. John-Steiner V. *Creative Collaboration*. Oxford: Oxford University Press, 2000.
14. Liberali F.C. Estudos sobre argumentação e suas implicações para contextos escolares: uma visão panorâmica [Studies about argumentation and its implications for school contexts: a panoramic view]. In Liberali F.C. (ed.), *Argumentação em contexto escolar [Argumentation in the school context]*. Campinas: Pontes, 2013, pp. 17–40.
15. Liberali F.C. Transforming Urban Education in São Paulo: Insights into a Critical-Collaborative School Project. *DELTA [online]*, 2019. Vol.35, no. 3, pp. 1–26. Available at: <https://doi.org/10.1590/1678-460x2019350302>. (Accessed 19.15.2020). (In English).
16. Magalhães M.C.C. A linguagem na formação de professores reflexivos e críticos [Language in the formation of reflective and critical teachers]. In Magalhães M.C.C. (ed.), *A formação do professor como um profissional crítico [A formação do professor como um profissional crítico]*. Campinas, SP: Mercado de Letras., 2004, pp. 59–86.
17. Magalhães M. C. C. O método para Vygotsky: A zona proximal de desenvolvimento como zona de colaboração e criticidade criativas [The Method for Vygotsky: ZPD as a zone of creative collaboration and critical reasoning]. In Schettini R.H., Damianovic M.C., Havi M.M., Szundy P.T.C. (eds), *Vygotsky: Uma revisita no início do século XXI [Vygotsky: a revisit in the early 21st Century]*. São Paulo: Andross., 2009, pp. 53–78.
18. Magalhães M.C.C. 'Intervention Research in a Public Elementary School: A Critical-Collaborative Teacher Education Project on Reading and Writing'. *Outlines – Critical Practice Studies*, 2016. Vol. 17, no. 1, pp. 39–61.
19. Magalhães M.C.C. Formação Contínua de Professores: A Organização Crítico-Colaborativa para transformação [Continuing teacher education: the critical-collaborative organization for transformation]. *Linguagem: Estudos e Pesquisas = Language: Studies and Research*, 2019. Vol 22, no. 2. DOI: 10.5216/lep.v22i2.57502. (In Portuguese).

20. Magalhães M.C.C., Fidalgo S.S. The role of methodological choices in investigations conducted in school contexts: Critical research on collaboration in continuing teacher education. In Riika A.; Pöyhönen S. (eds.), *Language in action: Vygotsky and Leontiev legacy today*. Cambridge: Cambridge Scholars Publishing., 2007, pp. 329–352.

21. Magalhães M.C.C., Fidalgo S.S. Critical collaborative research: focus on the meaning of collaboration and on mediational tools. *Revista Brasileira de Linguística Aplicada [Brazilian Journal of Applied Linguistics]*, 2010. Vol. 10, pp. 773–797.

22. Magalhães M.C.C., Fidalgo S.S. Reviewing Critical Research Methodologies for Teacher Education in Applied Linguistics. *D.E.L.T.A.*, 2019. Vol. 35, no. 3, pp. 1–19.

23. Marx K., Engels F. A ideologia alemã: teses sobre Feuerbach [German Ideology: Theses on Feuerbach]. São Paulo: Centauro Editora., [1844] 2004 2005. 1485 p.

24. Mateus E. Prefácio [Preface]. In Liberali F.C (ed.), *Argumentação em contexto escolar [Argumentation in the school context]*. Campinas: Pontes., 2013, p. 9.

25. Matos D.S. *O ensino da língua portuguesa escrita para a criação surda em uma perspectiva bilíngue [Teaching Portuguese written language to deaf children in a bilingual perspective]*. Master's Thesis. Graduate Program in Education and Health in Childhood and Adolescence. Guarulhos, SP: UNIFESP, 2017. 199 p.

26. Ninin M.O.G., Magalhães M.C.C. A linguagem da colaboração crítica no desenvolvimento da agência de professores de ensino médio em serviço [The Language of Critical Collaboration in High School teachers' agency development]. *Alfa: Revista de Linguística [Alpha: Journal of Linguistics]*, 2017. Vol. 61, no. 3, pp. 707–732. DOI:10.1590/1981-5794-1711-7 (In English).

27. Pinheiro L.M. Adaptações curriculares na “inclusão” escolar de alunos surdos: intervenções colaborativas [Curricular adaptations in the school “inclusion” of deaf students: collaborative interventions]. Doctorate Dissertation Thesis. Graduate Program in Education and Health in Childhood and Adolescence. Guarulhos, SP: UNIFESP. 2018. 422 p.

28. Pinheiro L.M., Fidalgo S.S. Adaptações curriculares na “inclusão” escolar de alunos surdos. [Curricular adaptations in the school “inclusion” of deaf students: collaborative interventions]. *Revista Brasileira da Pesquisa Sócio-Histórico-Cultural e da Atividade [Brazilian Journal of Socio-Historical-*

Cultural Research and Activity], 2019. Vol. 1, no. 1, pp. 1–15. Available at: <http://revistashc.org/index.php/shc/article/view/32/1> (Accessed 14.05.2020). (In Portuguese.)

29. Pinheiro L.M. A “inclusão” escolar de alunos surdos: colaborações para pensar as adaptações curriculares [School inclusion of deaf students: collaborations to think about curricular adaptations]. Curitiba: Appris, 2020. 317 p.

30. Rieber R.W. (ed.), *The collected works of L.S. Vygotsky: Vol. 2. Fundamentals of Defectology*. New York and London: Plenum Press, 1993. 349 p.

31. Silva E.P.D. As discussões de Vygotsky sobre defectologia: necessidades para a formação de professores na perspectiva da educação inclusiva [Vygotsky's discussions on defectology: needs for teacher education from the perspective of inclusive education]. Doctorate Dissertation Thesis. Graduate Program in Education and Health in Childhood and Adolescence. Guarulhos, SP: UNIFESP, 2018. 180 p.

32. United Nations. Universal Declaration of Human Rights, 1948. Available at: <https://nacoesunidas.org/wp-content/uploads/2018/10/DUDH.pdf>. (Accessed 20.05.2020).

33. Vygotsky L.S. Principles of education for physically handicapped children. In Rieber R.W. (ed.), *The collected works of L.S. Vygotsky: Vol. 2. Fundamentals of Defectology*. New York and London: Plenum Press., [1924] 1993, pp. 65–75.

34. Vygotski L.S. Introducción: los problemas fundamentales de la defectología contemporánea [Introduction: The fundamental problems of contemporary Defectology]. In Vygotski L.S. (ed.), *Obras escogidas V: Fundamentos de defectología*. Madrid: Visór., [1929] 1993.

35. Vygotsky L.S. Compensatory processes in the development of the retarded child. In Rieber R.W., Carton A.S. (eds.), *The collected works of L.S. Vygotsky: Vol. 2. Fundamentals of Defectology*. New York and London: Plenum Press, [1931a] 1993, pp. 122–138.

36. Vygotsky L.S. The collective as a factor in the development of the abnormal child. In Rieber R.W., Carton A.S. (eds.), *The collected works of L.S. Vygotsky: Vol. 2. Fundamentals of Defectology*. New York and London: Plenum Press, [1931b] 1993, pp. 191–208.

37. Vygotsky L.S. Genesis of higher mental functions. In Rieber R.W. (ed.), *The Collected works of L.S. Vygotsky*. New York: Plenum., [1931]1997, pp. 97–120.

К вопросу о развитии высших психических функций в школах Бразилии: портрет изолирующей инклюзии

Суэли Саллес Фидальго

Федеральный университет Сан-Паулу, Бразилия
ORCID: <https://orcid.org/0000-0001-6533-2346> e-mail: susadalgo@gmail.com

Мария Сесилия Камарго Магальяэс

Папский католический университет Сан-Паулу, Бразилия
ORCID: <https://orcid.org/0000-0002-8567-0358> e-mail: cicamaga@gmail.com

Лусинеиде Мачадо Пинеиро

Федеральный институт Сан-Паулу, Бразилия
ORCID: <https://orcid.org/0000-0002-8114-7308> e-mail: lucineidepinheiro@yahoo.com.br

В статье представлен обзор бразильских школ с точки зрения их роли в развитии высших психических функций у учеников, в особенности у учащихся с ОБЗ. Очень часто мы видим, что отсутствие

качественного образования у педагогов приводит к эксклюзии детей и других участников образовательного процесса, в том числе самих педагогов, которые ощущают постоянную перегрузку, работая в классах по 45–60 человек, в условиях систематического недофинансирования сферы образования. Можно даже сказать, что государственные школы Бразилии перманентно погружены в противоречивую реальность, одновременно и раздираемую конфликтами, и порождающую их, отчужденную и отчуждающую, угнетенную и угнетающую; и дихотомия «эксклюзия/инклюзия» лишь усиливает эти противоречия, препятствуя диалогическому выстраиванию деятельности педагогов и учеников. Подобная ситуация мешает полноценному развитию высших психических функций, для которого важна дискуссионная, критическая языковая организация, зачастую недоступная ученикам, пока их продолжают обучать по системе передачи знаний, как когда-то и их учителей. Принимая во внимание все вышесказанное, в данной статье мы постарались ответить на вопрос: в какой же степени современная бразильская школа способствует развитию ВПФ и позволяет как здоровым ученикам, так и детям с ОВЗ раскрывать свой потенциал настолько полно, насколько это возможно?

Ключевые слова: высшие психические функции, дети и подростки с ОВЗ, специальные образовательные потребности, контекстно-зависимое образование.

Для цитаты: Фидальго С.С., Магальяэс М.С.К., Пинеиро Л.М. К вопросу о развитии высших психических функций в школах Бразилии: портрет изолирующей инклюзии // Культурно-историческая психология. 2020. Том 16. № 3. С. 87–96. DOI: <https://doi.org/10.17759/chp.2020160310>

Information about the authors

Sueli Salles Fidalgo, A professor at the Portuguese and English Teaching undergraduate Program and currently coordinating the Graduate Program of Education and Health in Childhood and Adolescence, both at the Federal University of São Paulo (Unifesp), Brazil, Sueli holds a Doctorate degree in Applied Linguistics and Language Education, and investigates works with a focus on social-educational inclusion and teacher education, ORCID: <https://orcid.org/0000-0001-6533-2346> e-mail: susadalgo@gmail.com

Maria Cecilia Camargo Magalhaes, holds a Doctorate degree in Education from Virginia Tech, and is currently Full Professor at the Linguistic Department and the Applied Linguistics and Language Studies Graduate Program at the Pontifical Catholic University of São Paulo, Brazil. She works with theoretical-methodological issues in Teacher Education, mainly focusing on critical collaborative research within the theoretical frame of the Socio-Historical-Cultural Activity Theory, ORCID: <https://orcid.org/0000-0002-8567-0358> e-mail: cicamaga@gmail.com

Lucineide Machado Pinheiro, holds a Doctorate and Master's degree in Education and Health in Childhood and Adolescence from the Federal University of São Paulo and is a Professor at the Federal Institute of Education, Science and Technology of São Paulo, Brazil, Orcid: 0000-0002-8114-7308, e-mail: lucineidepinheiro@yahoo.com.br

Информация об авторах

Суэли Саллес Фидальго, доктор прикладной лингвистики и языкового образования, профессор, координатор бакалаврских и магистерских программ в области преподавания языков, обучения и здоровья в детском и подростковом возрастах, Федеральный университет Сан-Паулу, Бразилия, ORCID: <https://orcid.org/0000-0001-6533-2346>, e-mail: susadalgo@gmail.com

Мария Сесилия Камарго Магальяэс, доктор образования, профессор факультета лингвистики, Папский католический университет Сан-Паулу, Бразилия, ORCID: <https://orcid.org/0000-0002-8567-0358>, e-mail: cicamaga@gmail.com

Лусинеиде Мачадо Пинеиро, доктор образования, профессор, Федеральный институт образования, науки и технологий Сан-Паулу, Бразилия, ORCID: <https://orcid.org/0000-0002-8114-7308>, e-mail: lucineidepinheiro@yahoo.com.br

Получена 22.05.2020

Received 22.05.2020

Принята в печать 01.06.2020

Accepted 01.06.2020