

## ART AND INCLUSION IN VYGOTSKY: CULTURAL ACCESSIBILITY IN MUSIC

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### ABSTRACT

In the most diverse cultures, the arts are everyday activities in human life. However, they are still experienced as something for a few – for those who supposedly have a gift or are genetically predisposed. When it comes to diversity, this discussion becomes even more heated, highlighting the issue of exclusion from the artistic experience. Therefore, the present study aimed to reflect on the inclusion of cultural tools for accessibility to deaf people in the field of musical activity. As a methodological bias, bibliographical research was used, as well as the analysis of inclusion projects undertaken both in Universities and in social projects, based on the bases of Historical-Cultural Psychology, from this perspective, it is concluded that the arts are an essential part of human activity, serving as cultural experiences necessary for human development, as well as techniques and tools for expressing emotions.

**Keywords:** historical-cultural psychology; defectology; cultural accessibility; musicality

### Arte e inclusão em Vygotsky: acessibilidade cultural em música

#### RESUMEN

En las más distintas culturas, las artes son actividades cotidianas en la vida del ser humano. Sin embargo, aún son vivenciadas como algo para pocos – para aquellos presuntamente detentores de un don o genéticamente predispuestos. Cuando se trata de la diversidad, tal discusión se vuelve aún más obstinada, evidenciándose la cuestión de la exclusión de la vivencia artística. De esa manera, en el presente estudio se tuvo por objetivo reflexionar sobre la inclusión de herramientas culturales de accesibilidad a las personas sordas en el campo de la actividad musical. Como sesgo metodológico, se hace uso de investigación bibliográfica, así como del análisis de proyecto de inclusión emprendida tanto en Universidades con respecto en proyectos sociales, partiéndose de las bases de la Psicología Histórico-Cultural, de una otra mirada sobre arte, inclusión y accesibilidad cultural. Desde esta perspectiva, se concluye que las artes son una parte esencial de la actividad humana, como experiencias culturales necesarias para el desarrollo humano, como técnicas y herramientas de las emociones.

**Palabras clave:** psicología histórico-cultural; defectología; accesibilidad cultural; musicalidade

### Arte e inclusão em Vigotski: acessibilidade cultural em música

#### RESUMO

Nas mais diversas culturas, as artes são atividades cotidianas na vida do ser humano. Entretanto, ainda são vivenciadas como algo para poucos – para aqueles supostamente detentores de um dom ou geneticamente predispostos. Quando se trata da diversidade, tal discussão se torna ainda mais acirrada, evidenciando a questão da exclusão da vivência artística. Nesse sentido, o presente estudo teve por objetivo de refletir sobre a inclusão de ferramentas culturais de acessibilidade às pessoas surdas no campo da atividade musical. Como viés metodológico, fez-se uso de pesquisa bibliográfica, bem como da análise de projeto de inclusão empreendida tanto em Universidades quanto em projetos sociais, partindo das bases da Psicologia Histórico-Cultural, de um outro olhar sobre a arte, inclusão e acessibilidade cultural. Nessa perspectiva, concluiu-se que as artes são parte essencial da atividade humana, como vivências culturais necessárias para o desenvolvimento humano, como técnicas e ferramentas das emoções.

**Palavras-chave:** psicología histórico-cultural; defectología; acessibilidade cultural; musicalidade

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## INTRODUCTION

The present study had the objective to reflect on the inclusion of cultural tools of accessibility in the field of musical activities for deaf people. In order to do it, there is the presentation and the discussion of studies that relate to the themes of “music” and “inclusion”, as well as the production of a survey on successful tools and experiences in accessibility. Also, as a methodological route, there is the search for these themes in academic databases and research websites with social and university projects, with a theoretical analysis that is anchored on the cultural and historical psychology bases established by Lev Semionovich Vygotsky, which leads to an inclusion perspective regarding access to musical, artistic, and cultural collections.

It is known that music, as a sound phenomenon, despite being culturally present in the lives of people, and in their everyday life activities in different ways - listening to the singing of birds, going to a music concert, listening to the radio, singing, whistling, playing an instrument (Rezende, 2018) etc. -, is still considered to be something related to a gift, or a “natural” predisposition of the chosen ones to have such talents.

Consequently, musical expression by means of instruments is seen as something exclusive, or a privilege of music schools and conservatories. In this sense, musicians are elevated to a category of mythical entities. On the other hand, music-less is the term used to describe those who do not fit into a body standard that is expected in the context of learning at music schools, that is, those without a suitable muscular tone, or a sense of hearing that is capable of identifying frequencies, or without a physical response that is rapid enough to execute a rhythm. So, they get excluded from the referred context, because they do not have capacities and skills that are considered natural so that they can become musicians. Such conception of the musical gift implies the distancing of people in the musical universe, and leads to a lack of belief in human possibilities, and to exclusion (Pederiva, 2009).

Concerning musical activities for blind, and deaf people, among other atypical developments, their relation with music seems even more distant, especially as an educational or professional activity because, in a society that is organized towards supposed normality, and the tools that belong to cultural life have been constituted by that standard. Thus, in the Kingdom of biology, by the configuration of the dominating species, there is the origin of the model of musicality that underlies social existence.

[...] When we think of human development, we inevitably question the continuous demand for the presence of a standard as the only way that is correct, ideal, acceptable, and positive for being in the world. According to such standard, what does not fit is considered from a perspective of inferiority,

less value, incapacity, and incompleteness. [...] The history of biological determinism leads us to grotesque ideas regarding human beings and their inferior quality [...] the ideas created by biological determinism went through a long trajectory that left Marks and still reverberate at our contemporary times. [...] We are able to observe that the need for normalization was constructed and idealized by dominating powers throughout history. History is dynamic and alive and it can take advantage of the past to change the future and perpetuate its ideals. The representations that we have of others are built daily as life goes on. And it is in this context that our positions need to show and explain that others, with their development specificities, are human, and as human, they need to be seen as unique and not by means of an imposition of social majorities (Paula & Pederiva, 2022, p. 1).

However, as historical beings that are capable of changing the environment and the conditions in which they live, human beings cannot perpetuate the same mistakes of the past, in their attempts to standardize life into a single model of existence, while excluding those who do not fit into the standards, regarding differences as inferior and determining cultural life by the limiting specter of biological laws (Paula & Pederiva, 2022). Thus, it becomes necessary to change the course of this story, based on what is learned in this trajectory, on the studies and trajectories that open new ways for equality, accessibility in cultural life, respect, and dignity when it comes to social differences.

Such way of regarding human beings, no matter what biological configuration they have that is beyond socially imposed standards, has its origins in a theory that was organized in the beginning of the 20<sup>th</sup> century, and still reverberates nowadays, as a possibility of safe foundations for other means of conceiving human beings. It is in the cultural and historical psychology of Lev Semionovich Vygotsky that it becomes possible to outline the conception of human beings as ruled by cultural laws, which are different from the biological laws that limit their action in the environment and hint at equality in social life. It is a theory that gives us hope that, by means of the deconstruction of prejudiced ideas regarding others, it becomes possible to respect differences by means of the wealth they represent. In this sense, this is what gets emphasized in the following lines, presenting cultural and historical psychology and its creator, who makes it possible to follow a different way in cultural human development in general, and also in arts and music activities (Vygotsky, 2001, 2009).

### THROUGH THE LENS OF CULTURAL-HISTORICAL THEORY OF LEV SEMIONOVICH VYGOTSKY

Lev Semionovich Vygotsky (1896-1934) was the creator of cultural and historical psychology. Nowadays, his thoughts are still quite relevant with contributions for

reflections on the development of cultural human beings, including in the arts (Vygotsky, 2001, 2009).

According to the author, human beings are dialectically constituted, and affectionately, intellectually, individually, socially, biologically, and culturally unified. In the field of affection and intellect, both emotion and reason influence our psychological organization, and human behavior, as in scales that lean to both sides and sometimes to one side or other, depending on one's experiences, which can be individual-social, and historical and/or social. To Vygotsky (2001, 2009) We are social individuals because we depend on others since our very beginning in this world, and we keep on depending on others in our existential trajectory, as we internalize what was historically and culturally created before our arrival in this world. Thus, It is possible to take action on this world and on ourselves regarding other people and nature by means of the acquisition of cultural and professional tools.

The cultural constitution of human beings, according to Vygotsky (2001, 2009), is based on biological foundations. However, the biological factor merely launches us into the world as humans who are primarily animals. All we need to do is look at the cases of “wolf-children”<sup>1</sup> (Leite & Galvão, 1999), whose biology did not guarantee humanity – those children were provided with the whole biological apparatus to walk, communicate, and everything else. However, because they had been saved and raised by wolves, they howled like wolves and moved around on all fours. The only thing that realizes us as humans is life among other human beings and the internalization of culture.

Reflection on the human constitution is essential if we want to amplify the discussion on the need to share tools so that everyone can participate in deep cultural immersion. Understanding that need for such cultural submersion means to understand the urgency for immersion into human diversity, which is historically constructed. People come into the world and share equally the possibility to contribute with it by means of singularities, by the way each one looks at things and by the way each individual experiences culture. This is the wealth of human life: a two-way road, in which culture provides us with the means to keep our continuity in a way that is creative and changes the world. Diversity and difference are pillars of human existence on this planet. In the animal Kingdom, such factors lead to

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<sup>1</sup> A record of the story of Victor de Aveyron – a boy who was approximately 12 years old and it was found in the forests in the South of France. The boy displayed animal-like behavior And it was probably due to the fact that the boy had been raised by wolves. By means of this research work it becomes possible to understand the importance of relations in the development of human beings.

the balance in nature. Thus, If one species dominates another, the consequence is loss of balance in the general system of life.

Everything human creation around us, according to Vygotsky(2018a), is the result of countless contributions by anonymous creators. All expressions of arts and sciences are human creations. From the generation of fire with two sticks to electrical light, which was the creation of a scientist, who nevertheless fed from the same source as several other thinkers, by the hands of so many people who did not make it to history books (Vygotsky, 2018a). That is the reason why, among other factors, all life matters. All Human experience is essential for existence. All forms of expression of knowledge are valid, genuine, and deserve respect and dignity.

According to cultural-historical theory, human development is structured and potentialized by means of the collaboration among people, where, In the process of help among peers, there is the internalization of possibilities for action upon the problems of everyday life. Thus, nobody develops alone. There is no existence in total individuality. We ontologically depend on each other. Consequently, any educational, or cultural development process requires the presence of difference, of diversity in the ways of being and existing, and of singularity.

Collaboration among people, regardless of age, gender, ethnicity, or other factors, is indispensable for the transformation of life, for creation, for the overcoming of common problems, for the organization of the word we wish to constitute. This is central when the theme is “education”. If human essence is constituted by the internalization of culture, and by the possibility of each person to contribute as cultural-historical beings in order to change the world, how can educational processes be organized for the effective structuring and materializing of this principle?

Everyone has the right to cultural constitution. Thus, this is what education should care for: for the guarantee to this right, so that everyone will have the opportunity to fill up with history and culture. However, such history must not be dominating and hegemonic. It must be made of diverse histories, which represent the richness of difference that constitutes humanity. It has to be a result of the sharing of different ways of existence in world.

As a result, it becomes urgently necessary to create spaces in classrooms, in society, and in life for the exchange of experiences among people, so that everyone, in a transparent and respectful way, has guarantee of opportunities for cultural expression and modes of existence, regardless of differences in biological constitution, which represent singularities in fact, or differences in ways of being in the world and perceiving it. These differences constitute us. They underlie our existences but we often fail to listen to them. In this

sense, we agree with Pulino (2016) in the belief that education must be “open for mutual attention and for embracing what is different, what is new” (p. 76), in a constant process of childhood condition.<sup>2</sup> Thus, when we think of the newness that underlies human relations, we refer to the Vygotskian perspective, in which “the ontogenetic and phylogenetic development of the human species is a result of a characteristic that only the human species has: the capacity to be different, the capacity to incessantly produce newness” (Santana, 2020, p. 228).

Vygotsky (2021) argues that difference represents richness when we deal with human beings. In this sense, it is the means by which the new appears, that is, the force that qualitatively moves human life on Earth. New creations, new interpretations, new ways of looking at the problems of social life. Thus, observing difference re-dimensions the individualistic sense and the predominating attempts at homogeneity. That is the reason why this author dedicated himself to the study of defectology.

### DEFECTOLOGY

Vygotsky (2021) recognizes the existence of defect<sup>3</sup>, but he affirms that disability is socially constructed. That is a result of a flaw-oriented way of looking at things, which is reductionist and is imposed on people along with cultural limitations. This, therefore, is not an individual matter in beings whose defects become social problems, which are related to one’s means of conceiving defect as well as to the organization and access to signals, tools, and the opportunity to work with culture.

In face of defect, Vygotsky (2012) does not label, does not classify, does not segregate and does not segregate either. He makes his position clear when he defends that development affected by this defect cannot be considered, regarding his peers, to be inferior. It is rather a single form of development. It is a different way to reach goals while respecting the law of diversity. The existence of defect does not represent in itself a problem. The problem is the consequence of defect that is manifested in the social environment because prejudiced attitudes towards defect happen within a system that is standardized towards a type of normality (Paula, 2017, p. 93).

To Vygotsky (1996), in the lives of cultural human beings there is a social situation of development, which is “the system of relations between a child of a certain age and a social reality” (p. 265). Development, to the author, is the appearance of the new. It is creation that gets

internalized and provides the structure of each person, which is based on this system of relations with other people and the environment, in which the possibilities for a human being to develop are directly connected to opportunities and to access to everything that was historically and culturally organized for life in culture, that is, power rather than limitation. In order to do that, we have the possibility to overcome the limitations of biological conditions and expand our own biological bodies with the help of cultural tools.

Disability “does not only modify the relation between man and the world. Most importantly, it manifests itself in the relations between people” [...] It is in the social experience that misfortunes and barriers that are experienced by those who have any disability materialize themselves, the world (with its instruments and signals) organizes itself towards a typical and idealized human identity. Access to cultural assets and to the semiotic elements that compose the sphere of human creation is limited when development is hindered by some condition of biological order (Abreu & Pederiva, 2021, p. 4).

In his comprehension of the consequences of life with defect as something connected to a social situation of development rather than a personal attribute, Vygotsky (2021) Relocates the fact towards a responsibility for all society, in face of living conditions, to guarantee development for everyone. In other words, we are all invited not only for responsibility in face of such phenomenon, but also for action in order to protect conditions and rights for the development of all human beings, including in arts and music in particular. The bodies of cultural human beings with defect seek a process of compensation with the environment.

Compensation is an organism’s adaptation to defect or to any other obstacle along human development. It is the search for new ways that are only possible because they have, concerning people with defects, the obstacle that leads to the necessary drive to overcome the limitations imposed by normality. While compensation is part of the process of human development because during this process, if there is some failure, organisms seek for alternative ways in order to continue their flow. Regarding people with defects, compensation is the reaction of that personality to such existence [...] Because it constitutes a response by a personality with defect, compensation does not have a universal meaning. Human development, even when it presents a certain regularity in the process, happens in a unique way for each person. In addition, compensation is not always successful, but whatever result it reaches, the important thing is to consider the fight that is implicit in the process (Paula, 2017, p. 91-92).

<sup>2</sup> According to Pulino (2016), the childhood condition is a means to position oneself in the world and look at it always as if it were the first time, regardless of chronological age.

<sup>3</sup> It is important to emphasize that the word “defect”, which is repeatedly used in the text, corresponds to an expression that was used at the time by L. S. Vygotsky. We chose to preserve it in order to respect the historical context in which his studies were produced.

Such compensation process is a response to the needs and demands of social life. They are alternative routes that can be found in the cultural experience<sup>4</sup>, and which can overcome the conditions of biological limitation, integrating people and the environment, so that life can go on in full functionality. In agreement with this perspective, Kelman and Queiroz (2016) believe that children who are deaf, in face of the challenges presented by the environment in which they live, Seek for alternative =ways which are different from the conventional ones. Consequently, “the atmosphere that was created by the different social cultural contexts in which the child is immersed interferes a lot in their development process” (p. 249). In this sense, such interactions will play a pivotal role in the processes of compensation in order to potentialize learning because, according to Vygotsky (2011), “the development of superior psychological functions is only possible because of the routes of cultural development” (p. 869). This is also possible in experiences with musical activities, as a tool for cultural accessibility.

### CULTURAL ACCESSIBILITY IN MUSIC

Thinking of social accessibility in music, based on Vygotsky’s Cultural-Historical Theory, is to create conditions for the musical development of everyone, in spaces that are intentionally organized for such ends, in their perception, comprehension, expression and/or creation, under the basic presupposition that somehow we are all musical and we are all able to develop musicality for the full cultural experience in this activity, regardless of biology.

Musicality, on the other hand, is a dimension of human beings that belongs to our inner capacity to relate to the sound phenomenon – a frequency, a noise, a natural sound, a musical gesture, a culturally structured musical sound etc. –, constituted in our phylogenetic history, as human beings and that, in human ontogenesis, was transformed and understood as a gift for the privileged (Pederiva, 2009).

Everyday life experiences – individual-social, intellectual-affectionate, emotional – since our time in the uterus that we internalize by means of the cultural relations that surround us (people, nature, things in general), are the things that organize and constitute our musicality. In the uterus, the vibrations reach our skin and ears by means of the amniotic fluid.

<sup>4</sup> The “cultural experience” term constitutes the greater complex, which was designated by Vygotsky, as the person-environment relation. Therefore: “Experience is the unit in which there is a representation, in an invisible way, on the one hand, the environment, what is being experienced – experience is always related to something that is outside a person - and, on the other hand, how I experience it” (Vygotsky, 2018b, p. 78). Thus, the cultural experience is probably the relation between people and the cultural tools that can be found in society and that make it possible for human beings to amplify their experiences with others.

Diving in our mothers’ intrauterine aquatic world, we started measuring out important aspects, always having in mind the importance of the skin in a baby’s constitution, especially in the embryo period and then in the fetal period. Thus, we end up in the formation of the motor and sensitive apparatus, which makes skin even more important. In other words, we are all skin! The skin is the primary receptor of pulses, sounds, sensations, and experiences we go through while we are still in our mothers’ bellies. Music, as a human activity, also pulsates, vibrates, and provides balance to our emotions. The musicality of babies, for example, develops by means of processes of appropriation of culture, outside the womb (Amorim, 2017, p. 48).

Our coming into the world takes place in the midst of the musical traditions of our forefathers, by means of songs, rhythms, instruments, dances, and other musical manifestations. There is a universe of sounds to be presented to children; the sounds of nature, sound landscapes (Oliveira & Pederiva, 2021), of the wind, of birds, of running water, of the rain; of materials that are part of our everyday lives – of wood, of glass in different recipients, of paper, of plastic, of metal –, those sounds are all part of life.

All these materials can also be used to make musical instruments, which are present at different periods of our musical and cultural history, and are part of musical expressions and creations, which were and will always be a process before they are presented as a product. Thus, introducing children to such dimension is first and foremost based on the action of providing authentic experiences involving everything that acquires new meaning to us with experience. For example: a guitar, before becoming a musical instrument that we see, hear and feel in a certain way, was and still is just a combination of different materials such as wood, strings, plastic, and metal. Before technique, it is something that produces sound with the historically modified use that, as possibility, in terms of frequency, can be experienced in diverse ways, by means of vision, hearing, and touch.

However, musical education and the social modes of experiencing music have been designed strictly in terms of hearing, for example, as an experience that is exclusive for the ears, but the sense of hearing. If the sound phenomenon is much more than a hearing phenomenon, how can it be amplified as an experience for all people, regardless of their biologies? And also: how can we organize cultural life in music, in terms of accessibility, for experiences that go beyond the standards of normality?

Concerning sound, it is commonly believed that it is an activity that is only possible to be experienced by people who can hear. However, deaf people also relate with the sound phenomenon in different ways. In the studies by Paula (2017) and Paula and Pederiva (2018) on the musicality of deaf people, for example, several people with different degrees of deafness were interviewed, and

they are reported their experiences regarding noise, sound in general, and musical compositions that were culturally organized as such, which can be experienced not only by the ears, but also by means of vision, and touch, and movement. It was possible to find the evidence, in those investigations, that musicality can be experienced by deaf people in different ways, in addition to the opening of new routes for amplification of the musical experience among people without the need of any organic means.

The experience of musicality by means of dance, of the playing of an instrument, of watching videos on YouTube, and of observing other people playing, dancing, and feeling the vibration and the emotion with music is a way to experience musicality that comprehends all means of perception in an organism, the whole organism. Dance plays with the tactile perception of vibration, of rhythm, and of the pulse of music, by the visual perception of movement, and in this context, all other means of perception interact when we experience musicality. It is a clear sign that the means to experience musicality for deaf people are not connected to the sense of hearing. The results of this research work point at the necessity for musical education to think of other forms of organization of the musical experience, in order to comprehend the infinite possibilities for the development of musicality in people, whether they are deaf or not (Paula, 2017, p. 131).

In another research work concerning the musical education of deaf people, Paula (2022) demonstrates the process of development of musicality in a deaf child, in an educational context in an inclusive school. In addition to doing the research work, she also had a relation of educator and interpreter for the child who was participating in the investigation. She provides evidence that it is possible to organize the educational environment in music, by providing examples of how it was thought out in a partnership made up of the researcher, the teacher, and the children in the social context of the school, which, by means of new perceptions that were engineered by Cultural-Historical Theory, helped in the structuring of the environment for this specific type of development, and the development of all other people.

The child in the investigation, demonstrating all other possibilities for development as a cultural being, with access to the educational process in music, participated in all activities that were proposed by the educator, in partnership with the interpreter and researcher, in an individual way, by means of the possibilities that were allowed by the body, regarding sound, by means of rhythm, translated and materialized by body movement, visually and sensorially perceived by other means (Paula, 2022).

Paula and Pederiva (2022), quoting Caldas, Schafer and Gesser (2012), affirm that it is possible to experience music by means of the language of signs, which opens the way to the experience of musicality, for a example by means of rhythm, of movement, of rhymes, of body and facial expression, among other possibilities.

Looking at the musical experience by means of lenses that aim at amplifying the modes of experiencing musicality means opening way for cultural accessibility; it means respect for the individuals that share social life, in the richness of their differences, of their diversity, from which, in fact, we have lot to learn about the ways created by those who have to invent new ways of being in the world, as full-fledged humans.

In fact, the development of human musicality in culture is not only a possibility for everyone. It is rather a right, as education and as cultural tool. That is the logic behind the musical band from Brasília named, "Surdodum" – a project that has been developed since 1995, at the Centro Integrado de Ensino Especial (CIEE), or Integrated Center for Special Education, where children with hearing disabilities can develop their musicality by means of sign language and the vibration that is felt by our bodies (Shimosakai, 2011).

It is known that there are specific tools for the amplification of the accessibility in question. In the case of blind people, braille music, for example, has for decades made it possible for people with hearing disabilities to get formation at the Escola de Música de Brasília (EMB), Brasília Music School, as they advance in the development of musicalities (Tomé, 2007).

*Music and Def* (2024) is a project from a non-profit organization in the United Kingdom. The project aims at sharing musical activities with deaf people. The purpose is to include people from all ages in the world of music. The organizers believe that musicality helps in the social, emotional, and intellectual development of people, including those who are deaf and not deaf as well, in an attempt to amplify musical inclusion for the whole community and promote the sharing of musical experiences among they always can hear and the ones who cannot hear.

Another example of musical inclusion is the INFRA Project – a space that was created in order to explore the relation that deaf people establish with the sound and vibration, where each person develops experiences that correspond to their necessities (INFRA, 2024; Sonandes, 2024).

The project aims at strengthening collective reflection on the theme, by means of task forces that organize themselves in order to generate collaborative meetings for the musical inclusion of people who are deaf and people who are not deaf as well – the collaborations include Argentinians, Bolivians, Chileans, Colombians and Uruguayans. It is a great investigation laboratory with several communities and huge diversity. The

objective is to promote new ways of listening and musical accessibility. The participants directly explore sound and vibration while amplifying their experiences by means of a diversity of visual, tactile, space, and body manifestations, among others. There, laboratories refine their activities with open presentations in order to share the experiences with the communities, and be rewarded with the sharing of collective information and experience.

Advancing in vibration technology – a form of “hearing through the skin” –, the University of Liverpool develops a project whose objective is to make music accessible for people with hearing disabilities at schools, by means of live music and musical productions studies, and using vibration as the main focus (Musical Vibrations, 2024). Vibro-tactile technology promotes the feeling of vibrations through the skin, with the objective to share this system at all possible spaces, and increasingly include deaf people into the world of music.

In addition to the projects in question, there are several technologies that are developed in order to connect deaf people with the world of music. Besides sign language, as a means to enjoy music, there are nonprofit platforms that provide musical accessibility for people who cannot hear. There are also applications with the objective to amplify such access. The Ludwig Application, for example, promotes musical by means of tactile vibrations and a bracelet that is connected to a tablet or a smartphone (Tagiaroli, 2015). Likewise, the M:NI Technology (*Music: Not Impossible*) promotes musical experiences by means of vibrations that can be felt throughout the body, and can be interpreted in rhythmic and melodic form (Music: Not Impossible, 2024a; 2024b). By means of the same technological route, there is another device named Zappos. Illuminet translates sound into light: a technological device created by deaf people by means of their own musical experience, where the system interprets sounds, tones, rhythm, and volume. The device converts these elements into light by means of the *Light-Emitting Diode* (LED) technology (Fauzi, 2018).

In addition to previously mentioned technologies, there is the Bone Conductor Helmet, which transmits sounds by means of vibrations directly into the auditory nerve through the cranium. The vibrations become sounds without having to go through the eardrums.

In a nutshell, the aforementioned projects are some of the integrating possibilities in music, and they prove that musical activity can be experienced in multiple ways. Therefore, biological limitations do not infect restrict the cultural life with quality and dignity that all people deserve to have. Access to tools, to sign language, and to cultural activities are the means to new ways of establishing relations and social insertion. Such education is capable of changing lives with the help of integrating perspectives.

## CONCLUSION

Approaching the issue of cultural accessibility by means of experiences and possibilities in music as an artistic language is based on the affirmation that cultural humans are powerful when they have equal opportunities for access to development. In fact, disempowerment, which happens when people are denied the tools, signals, and activities, is the factor that makes life limited.

Thus, it is extremely important to reflect on how far we can go when we think of projects of musical accessibility. The collective projects are a great opportunity for sharing cultural and musical experiences because they overcome territorial barriers, remote cooperation, and create spaces for learning, development, and musical experiences in the most universal and egalitarian way possible. The technological devices are tools that aim at amplifying spaces for compensation and creating new fruitful waste for development, which lead to other possibilities for educational activities.

However, it is necessary to recognize that the technologies are not accessible to everyone. Thus, we return to Vygotsky (1996) in order to remember that “social reality is the true source of development, the possibility for the social to become individual [...] The social situation of development, which is specific for every age, determines and regulates strictly all children’s lifestyles and social existence” (p. 264). So it becomes indispensable to consider the social situation of people with disabilities when we think of musical tools and inclusion projects, and it becomes necessary to amplify social and material resources in the lives of people, in addition to creating spaces that are even richer in experiences and cultural tools.

It is also important to provide actions towards the affirmation of cultural humans, that is, people without the labels and limitations that are imposed by society. Plenty of research works are also necessary in addition to educational processes that lead to full development, especially in music.

In fact, the Cultural- Historical theory provides different lenses towards the transformation not only of prejudiced and biologically based opinions, but also towards a perspective that is capable of finding new ways for a more egalitarian social experience. Thus, we have a new perspective for the conception of ethics, by means of relations that are built in different contexts and lead us to understand the importance and the beauty of heterogeneity in our human constitution.

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## **Note**

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## **Data availability**

Research data are available in the document.

## **Section Editor**

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