

ARTICLE

**THE BODY AS A DISCOURSE BETWEEN CAPOEIRA AND SCIENCE EDUCATION:
POSSIBLE INTERCULTURAL *GINGAS*¹**

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ABSTRACT: The purpose of this paper was to build intercultural *gingas* between traditional Afro-Brazilian knowledge and science education, considering the educational processes expressed through the body. *Ginga* is a bodily representation that expresses negotiation in capoeira. In this way, intercultural *gingas* constitute dialogues based on the theoretical frameworks of critical interculturalism. They were outlined through research carried out at the Master's level, in a community with remaining African ancestry that receives the intervention of the Green Room, an extension action of the Federal University of Bahia within the scope of Science Education. The territory experiencing the quilombola certification process is São Francisco do Paraguaçu (Bahia) and since 2014 has been affected by this proposal anchored in the assumptions of Science, Technology, and Society. Empirical data were collected through semi-structured interviews with capoeira masters in the region, based on their discursive references to traditional Afro-Brazilian knowledge, and scientific literature. These lenses made it possible to monitor the pedagogical mediations performed by the Green Room with residents, in the course during an ethnographic immersion as conceptualized by Restrepo. The interface of this relationship was conceived from the perspective of the body as a socio-historical discourse in Bakhtin's conceptions, resulting in intercultural *gingas* of dissensus that deny racial-ethnic difference, and mark it based on inferior hierarchical, and *gingas* of consensus that treat cultural difference with reciprocity.

Keywords: Interculturalism, Capoeira, Science Education, Decoloniality.

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O CORPO COMO DISCURSO ENTRE A CAPOEIRA E A EDUCAÇÃO EM CIÊNCIAS: *GINGAS* INTERCULTURAIS POSSÍVEIS

RESUMO: O presente artigo teve como objetivo, ao considerar os processos educativos que se expressam a partir do corpo, construir gingas interculturais entre o saber tradicional de matriz afro-brasileira e a Educação em Ciências. A ginga é uma representação corpórea que expressa negociação na capoeira. Desse modo, as gingas interculturais constituem-se em diálogos assentados nos marcos teóricos da interculturalidade crítica. Os resultados apresentados compõem uma dissertação de mestrado realizada em uma comunidade remanescente de ancestralidade africana. O objeto da análise foi o acompanhamento de uma intervenção do projeto extensonista Sala Verde, uma ação da Universidade Federal da Bahia no âmbito da Educação em Ciência. O território que vive o processo de certificação quilombola é São Francisco do Paraguaçu, Bahia, desde 2014 afetado por tal proposta ancorada nos pressupostos Ciência, Tecnologia e Sociedade. Os dados empíricos foram construídos mediante entrevistas semiestruturadas com mestres de capoeira da região, a partir de suas marcas discursivas remetentes aos saberes tradicionais afro-brasileiros; e literatura científica – lentes que possibilitaram o acompanhamento das mediações pedagógicas realizadas pelo Sala Verde com os moradores locais, no decurso de uma imersão etnográfica amparada em Restrepo. A interface dessa relação foi concebida sob o viés do corpo como discurso sócio-histórico nas concepções de Bakhtin, o que resultou nas gingas interculturais de dissenso que negam a diferença étnico-racial e a marcam em uma base de hierarquização inferior e gingas de consenso que tratam a diferença cultural com reciprocidade.

Palavras-chave: interculturalidade, capoeira, Educação em Ciências, decolonialidade.

EL CUERPO COMO DISCURSO ENTRE LA CAPOEIRA Y LA ENSEÑANZA DE LAS CIENCIAS: POSIBLES GINGES INTERCULTURALES

RESUMEN: El propósito de este artículo fue construir gingas interculturales entre el conocimiento tradicional de origen afrobrasileño y la enseñanza de las ciencias, teniendo en cuenta los procesos educativos que se expresan a través del cuerpo. La ginga es una representación corporal que expresa la negociación en la capoeira. De esta forma, las gingas interculturales constituyen diálogos basados en los marcos teóricos del interculturalismo crítico. Los resultados que se presentan hacen parte de una tesis de maestría realizada en una comunidad remanente de ascendencia africana que recibe intervención del Aula Verde, una acción de extensión de la Universidad Federal de Bahía en el ámbito de la Educación en Ciencias. El territorio que vive el proceso de certificación quilombola es São Francisco do Paraguaçu (Bahía) y desde 2014 se ve afectado por tal propuesta anclada en los supuestos Ciencia, Tecnología y Sociedad. Los datos empíricos se construyeron a través de entrevistas semiestructuradas con maestros de capoeira de la región, a partir de sus referencias discursivas al conocimiento tradicional afrobrasileño y a la literatura científica. Estas lentes nos permitieron monitorear las mediaciones pedagógicas realizadas por la Sala Verde con los residentes locales, en el curso de una inmersión etnográfica apoyada por Restrepo. La interfaz de esta relación fue concebida desde la perspectiva del cuerpo como discurso socio-histórico en las concepciones de Bakhtin, resultando en gingas interculturales de disenso que niegan la diferencia étnico-racial, marcándola sobre una base jerárquica inferior y gingas de consenso que tratan la diferencia cultural con reciprocidad.

Palabras clave: Interculturalidad, Capoeira, Enseñanza de las Ciencias, Decolonialidad.

INTRODUCTION

This article is the result of research carried out at the master's level, the result of which culminated in the construction of intercultural *gingas* – outlined from educational processes experienced in a remaining community of African ancestry, permeated by identity contradictions, which receives the intervention of an extension action of the Federal University of Bahia (UFBA) within the scope of Science Education – which constitute consensual and dissenting intercultural dialogues between different instances of knowledge (Science Education and traditional Afro-Brazilian knowledge).

The territory undergoing the process of self-designation and certification as a quilombola is São Francisco do Paraguaçu (SFP), Bahia, which has been affected since 2014 by the Sala Verde (SV) project, an outreach action anchored in the assumptions of the Science, Technology, and Society (STS) paradigm, with a strong history of action in the dissemination of scientific culture and priority given to science education, teacher training, and scientific dissemination in the rural and urban areas of Salvador in a more civic dimension. The proposal called SV² is part of the Social Program for Education, Vocation and Scientific Dissemination in Bahia, and its mission is explained on its website as follows:

To provide information and support the scientific vocation for Environmental Sciences of children and adolescents in basic education, in need of education in the Municipality of Salvador, Bahia, and develop programs aimed at the appropriation of scientific knowledge in schools and the application of technologies adapted to rural and urban environments, promoting in the community a systemic vision regarding the importance of training scientifically literate citizens (UFBA, [20--]).

The primary focus of the project is scientific culture, and the proposal is linked to the Institute of Biology, more specifically to the Department of Zoology at UFBA. The project presents a trajectory of interventions in the territory of SFP specifically, which have been taking place since 2014, with an important basis in scientific productions and educational technologies.

At the time, the metaphor *intercultural ginga* was coined, in view of the negotiation movement implicit in the bodily dimension expressed in *capoeira*, a cultural manifestation that goes beyond sport, is configured in a differentiated logic (Abib, 2004) and organizing vision of the world and is found diluted in territories with African ancestry.

Capoeira is identified from its symbolic universe by the elements that underlie it, such as orality, ancestry, memory, musicality, and rituals with the legitimate representation of knowledge of traditional Afro-Brazilian origin in SFP.

The adjective “intercultural” for *ginga* emerged from the research reference, based on the theoretical frameworks of critical interculturality (Walsh, 2009); and in adherence to the decolonial perspective based on Gonzalez (1984), Mignolo (2003) and Quijano (2005) for the establishment of a

² SV's actions in the community resulted in the production of a collection of publications and artifacts that were organized by study themes and categories, available on a digital platform, “Sala Verde: Ciência, Arte & Magia”. Available at: <https://salaverdeufba.wordpress.com/about/> Accessed on: July 23, 2022.

dialogue – questioning the construct of hegemonic power historically conceived around cultural difference (ethnic-racial dimension) – between the local traditions of the community at the interface with the SV academic project.

In this sense, intercultural *ginga* is proposed as a tool for epistemological, ontological, and pedagogical analysis, forged from *capoeira*, the corporeality implicit in it, and its essence of contestation.

When historicizing *capoeira*, Abib (2006, p. 8) explains that the rebelliousness of the manifestation also resides in the insurgency of the order of speech, in the “inversion of the logic of things” because, by turning upside down, the *capoeirista* subverts the world view and expresses, in this way, the greater meaning of human dialectics.

Therefore, the idea of intercultural *ginga* is worked here as an intercultural dialogue – it is promoted through the relationships that are established in the different contexts of training between peers, in intercultural interactions; it questions the matrices of coloniality; and subsidizes the construction of educational practices and processes that contribute “[...] to the reworking of the structures and orders of society that racialize, inferiorize, and dehumanize peoples” (Walsh, 2012, p. 2).

The analysis was developed from the body perspective, and adopted as a socio-historical discourse (Gomes, 2002; Louro, 2000; Volóchinov, 2017). All the data constructed were organized through narratives and discourses elaborated around the body, considering that, by assimilating meanings represented and interpreted differently in each culture, the body is always mediated in an arena of disputes, classifications, and hierarchies (Louro, 2000).

Therefore, given this proposal, we aim to build intercultural dialogues between traditional knowledge of Afro-Brazilian origin and Science Education, with consideration of the educational processes that are expressed through the body and that contribute to pointing out paths for the construction of more equitable educational processes in the field of Science to promote – in addition to insertion – the problematization, historicization and recovery of Afro-Brazilian knowledge that is factually silenced and subjugated, procedurally, in this field of knowledge. The objective is to answer the question of what would be the intercultural dialogues between traditional knowledge of Afro-Brazilian origin and Science Education when considering the educational processes expressed through the body.

The educational practices developed in SFP by SV, as well as the intercultural *gingas* promoted in the interactions between the academic project and the community, were analyzed through two lenses constructed based on traditional Afro-Brazilian knowledge and the assumptions of Science, respectively represented by *capoeira* – focused as an Afro-Brazilian cultural manifestation imbued with symbolic and identity elements of African matrices diluted in territories of African ancestry – and by scientific literature, scientific knowledge promoted by the SV project throughout its trajectory of local action.

In Physics, lenses are devices, technologies that amplify our way of seeing so that we can perceive objects, and even the reality around us, with greater clarity. In this article, the construction of lenses that are seen through the voice of scientific knowledge learned within the SFP community and the traditional Afro-Brazilian knowledge rooted in this territory, expressed by *capoeira*, is configured in a metaphor, as expressed by anthropologist Benedict (2009) who states that culture is like a lens through which people can see the world.

Such lenses mark the racist deformations based on coloniality, which still accompany

pedagogical processes, and at the same time allow for the adjustment of focus and promote the detachment of the “epidermalization of inferiority” pointed out by Fanon (2008, p. 28), arising from the white gaze towards the black body, as stated by Bhabha (2007, p. 69): “the eyes of the white man destroy the black body and in this act of epistemological violence, his frame of reference is transgressed, his field of vision disturbed [...]”.

The bibliographic review conducted using two databases and an electronic library – Google Scholar, the theses and dissertations database of the Coordination for the Improvement of Higher Education Personnel (CAPES-*Coordenação de Aperfeiçoamento de Pessoal de Nível Superior*), and the Scientific Electronic Library Online website – also legitimizes the imminence of research in this area, given its scarcity. The period designated for the survey refers to the period between 2010 and 2023. The descriptors used in an articulated manner were: “interculturality, STS, ethnic-racial relations”; “science education and interculturality”; and “science and ethnic-racial relations”. In total, 35 works were identified that indicated a trend in scientific production related to the investigation of the milestones of interculturality between the field of Science Education, ethnic-racial issues, and traditional knowledge matrices.

The research agenda on practical theoretical aspects to consider the dialogue between Science Education and Afro-Brazilian knowledge during teaching is still incipient, as also indicated by the panorama outlined by Verrangia (2014) and Verrangia and Silva (2010). The authors advocate the need for investment in studies and research that guide the interface between Science Education and Education of ethnic-racial relations and assertively defend the teaching of science from a civic perspective as a springboard for the promotion of citizenship and a strategy to combat racism.

In this sense, we sought to create border dialogues, between places (Bhabha, 2007), that would reaffirm the power of an education project that looked between cultures, “challenging the colonial traditions” (Freire, 1997, p. 33) that continue to accompany us, producing a disturbing argument to the hegemonic discourses that overestimate science, reason, and cognition of white bodies in opposition to the knowledge produced by black bodies that are guided by the African worldview.

Based on this brief introduction, we aim to indicate possible intercultural movements that are configured in decolonial gaps, resulting from the articulation between traditional Afro-Brazilian knowledge and science teaching, in a critical intercultural perspective (Walsh, 2009), from the perspective of the body; and share the main findings of the investigation.

GINGA, DODGE, ATTACK: THE BODY MOVING IN THE CIRCLE – CAPOEIRA AND THE TEACHING OF SCIENCE

[...]
 The men who civilized me arrived on the beaches of my country
 In the infected holds of slave ships and were sold
 and branded like cattle in the market.
 I was civilized by the beating of mysterious drums,
 by the sound of São Bento Grande on the gourd berimbau,
 by the defiant dance of the Obá of Obás,
 by the dance of the owner of the afefé – sacred wind –
 and by the xaxará of the lord of smallpox,
 whom I revere and ask for calm so as not to make the world strange:
 Atotô!

The opening verses of Luiz Antonio Simas draw our attention to “the greatest of all scandals; the one that surpassed any other in the history of humanity: the enslavement of black African peoples” (Nascimento, 2020, p. 57).

Due to a diaspora forged cruelly and violently that served the trafficking of human beings, led by Portuguese colonizers, millions of African men, women, and children crossed the Atlantic towards Brazil, in the fetid holds of slave ships.

However, in this excerpt from Simas (2013) that we have just presented, it is possible to simultaneously observe that, even though the enslaved African peoples had their bodies branded with iron like animals, they faced – armed with their cultural legacy safeguarded in their bodies – in a vehement manner the perverse effects of colonialism and coloniality.

The colonialist dynamic understood as the removal of the economic and political power of a people (Candau, 2010) – in this case, specifically, the subjugation of African peoples by European colonizers – was legitimized, according to Quijano (2005), by the idea of race and phenotypic differences. In addition, it was also conditioned by the matrices of coloniality that refer to a symbolic, intersubjective, and epistemological context (Candau, 2010; Mignolo, 2003).

In these terms, the prohibition of black bodies did not only occur on a material level but was correlated with the *epistemicide* of the forms of knowledge produced by these bodies and consequently the denial of their human status.

According to Soares (2004), *capoeira* is a notable practice that emerged in the context outlined in Brazilian soil, emerging from the broth of African references. In his extensive study on the subject, the author presents the historical trajectory of *capoeira* specifically in the city of Rio de Janeiro at the beginning of the 19th century, and calls it slave *capoeira*, to express it as a rebellious tradition with an immanent slave root that exerted great fascination due to its *maneuverability* and *resistance*.

Capoeira weaves into its essence the strengthening of black identities, and black bodies, and assimilates a symbolism of struggle in this oppressive scenario for the perpetuation of values, meanings, and traditions, with a libertarian character in terms of the use of the body “as an instrument of sociocultural resistance and as an emancipatory agent of slavery [...]” (Munanga; Gomes, 2016, p. 152).

A cultural and intangible heritage of humanity (Castro; Fonseca, 2008), with a legitimate representation of Afro-Brazilian knowledge, *capoeira* manifests itself through tacit and corporeal knowledge. A cultural expression that occurs through corporeality, a perspective that goes beyond the incarnated body, but is configured as an *attitude*, an *experience*, “understandable through its integration into the social structure” (Moreira, 2012, p. 135).

This art is a purposeful cultural expression going beyond the most commonly known and accepted sporting practice (Silva; Ferreira, 2012). It is a manifestation whose core invites us to think about educational processes from an Afro-perspective and emancipatory perspective, to curb stereotypical and folklorized views, legacies of Eurocentric rationality strongly rooted in schools (Abib, 2004).

As an example of this Eurocentric rationality, we observe Science formatted in a Eurocentric

knowledge policy through educational institutions – a policy designed in the scope of biological sciences and science teaching based on the silencing of scientific racism; on the mistaken understanding of Darwinian evolution theory; on Medelian heredity; and the construction of ideas about race, miscegenation, ethnicity, gender and sex, eugenics, among other issues (Dutra, Castro, Monteiro, 2019; Nascimento, 2020).

Although the concept and idea of biological race have been discredited by modern science, according to Guimarães (1999, p. 153), they are “fully present in the social world, products of ways of classifying and identifying that guide the actions of human beings”. Schucman (2014, p. 81) corroborates this assertion by highlighting:

In this sense, it is important to note that the category of race that operates in the population's imagination and produces racist discourses is still the idea of race produced by modern science in the 19th and 20th centuries. It classifies human diversity into physically contrasting groups that have common phenotypic characteristics, which are considered responsible for determining the psychological, moral, intellectual, and aesthetic characteristics of individuals within these groups, placing them on a scale of unequal values.

Such theories still reverberate under the aegis of coloniality and permeate the curricular matrix; everyday school life; and science teaching, which is not exempt, continues to reproduce this rationality and reflect such logic through its lenses.

Dutra, Castro and Monteiro (2019) point in this direction, when they argue that Science Education presents in its genesis the reproduction of the matrices of coloniality of knowledge, being, and power within a society permeated by frequent tensions, in which science teaching has several purposes, in which configures as an instrument of endorsement of legitimization of relations of inferiority of certain social and ethnic groups.

According to Moreira (2012), modern rationality also endorsed the dichotomous idea of body and mind, influenced by Cartesian, Eurocentric, and positivist logic, culminating in a universal conception of the human being. According to Hall (2006), the individual began to be exalted for his cognitive, reflective, and reasoning capacity.

When criticizing scientism, Capra (1982, p. 29) already corroborated this idea and indicated some of its implications: “[...] the effects of this division between mind and body are felt throughout our culture. As we retreat into our minds, we forget how to ‘think’ with our bodies, and how to use them as agents of knowledge”.

The discussions converge on excerpts from semi-structured interviews conducted with one of the great Brazilian masters, a reference in *capoeira*, *Mestre Angola*³, who, when contributing to this research, refers to the *capoeirista's* body and argues:

It doesn't have a shape. I wrote one day what I called a deformed shape, contradicting the Cartesian ideas, which give form to everything [...] it is the body and mind forming the whole. You know that this idea of body and mind being separate is a Western thing. In the case of the African, which is confused with Eastern cultures, the body and mind merge to form the whole.

³ The names of the testifying *mestres* are fictitious to preserve the integrity of the participants and the research's ethical commitment.

Contrary to the linear discourse of science, *capoeira ginga*, given that the body, in this field of knowledge, is taken as a set of dissociated parts, as a kind of machine, in allusion to Descartes when he compares it to a clock that denotes adjustments or repairs (Sobreira; Nista-Piccolo; Moreira, 2016).

Through the lens of *capoeira*, the body is revealed as the primary reference for knowledge, and its genesis is essentially corporal. The body is revealed as a powerful constituent element of cultural identity and is configured as a dimension of experience in the world (Nóbrega, 2010).

Sobreira, Nista-Piccolo and Moreira (2016) discuss the dimension of the body present in *capoeira* when they approach corporeality as the body in movement in the search for life in a historical and cultural time; and they affirm – when considering as a premise that experiences do not happen without our body – the importance of overcoming the dichotomy between sensitive thought and rational knowledge.

The paradigm of science pointed out, historically, blatantly avoided other ways of knowing the world that were not scientific and governed by its epistemological and methodological assumptions (Santos, 2008).

However, an alternative defended in *attack*, confronting issues linked to the hegemonic character of science and its developments in the educational field, refers to the citizen aspect in dialogue with the STS perspective and scientific literacy. Such approaches have been guided since the 1970s and oppose scientism, the suppression and devaluation of knowledge from local culture to deconstruct the idea of a science that is closed in on itself (Santos; Mortimer, 2002).

The provocation of the work performs this scope to highlight the dialogues between traditional Afro-Brazilian knowledge and Science Education as indicators of bridges for the construction of educational processes thought and structured based on decoloniality and critical interculturality, as also indicated in the work *Intercultural dialogues between traditional knowledge and scientific knowledge in a Geraizeira community: a Freirian perspective on the Degree in Rural Education - Diálogos interculturais entre conhecimentos tradicionais e conhecimentos científicos em uma comunidade geraizeira: um olhar freiriano na Licenciatura em Educação do Campo* (Kato; Sandron; Hoffmann, 2021).

Thus, the educational practices developed in SFP were focused on the interaction between the community and university students, through the lenses of both traditional Afro-Brazilian knowledge and scientific knowledge, respectively represented by *capoeira* and SV. We verified the indication of paths for the construction of more inclusive pedagogical actions in the field of science, focusing not only on the STS perspective but also on the rescue of Afro-Brazilian knowledge that has been silenced and subjugated throughout history, with the imperative of affirming the wealth of knowledge produced by the SFP community, without delegitimizing the theoretical-scientific framework produced by SV – which reiterated the need to unveil the supposed universality of science and historicize the hierarchical power relations expressed between the different instances of knowledge.

Thus, we will present the locus of interactions in which the negotiations expressed in the intercultural *gingas* identified during this research were established and we will contextualize it methodologically.

METHODOLOGICAL CONSTRUCTION IN THE CIRCLE

In this qualitative research, the data were constructed from the ethnographic approach (André, 1995). We understand ethnography not only restricted to Anthropology, or even considered a heritage of this field of studies, but also configured in a versatile approach with other possibilities of use, including the educational area (Restrepo, 2018).

According to Restrepo (2018), one of the most unique and definitively relevant activities during ethnographic immersion refers to the direct experience lived by the researcher in the field and, consequently, the construction of data in the interaction with this environment and its systematization during the work. For this reason, a field notebook and guiding questions were used to conduct the semi-structured interviews.

As the work aims to be decolonial, we constructed two lenses for analyzing the events in SFP, supported by the theoretical references of the scientific literature, the trajectory of SV's work within the community and a genuinely Afro-Brazilian tradition, present in SFP and safeguarded by the great *capoeira* masters of the largest stronghold of the manifestation in Brazil, which is the city of Salvador, Bahia, located 116 km from SFP.

As we delve into the SFP community, a remaining quilombo territory, we meet men, women, young people, children and elderly people, mostly descendants of the most varied African peoples, observing potential for building more consensual dialogues that value local knowledge.

The recognition and certification of a quilombola territory occurs through “the presumption of black ancestry related to the resistance to historical oppression suffered” (Brazil, 2003), and the process of self-definition is also based on the presence of elements that residents consider significant, “such as values, symbols and traditions, often codified in rules and standards of conduct and rituals” (Oliveira, 2018, p. 1), which is the case in this scenario.

We know that the identity issue is a fundamental condition in the process of self-recognition and, therefore, in the recognition of the *quilombola* community by the State. The construction of intercultural *gingas* is configured as an important tool for community articulation for *quilombola* populations.

The construction of the *capoeira* lens occurred through semi-structured interviews with two of these masters: *Mestre Angola* and *Mestre Regional*, both of whom live in Salvador and have deep knowledge of *capoeira*. One of them was a PhD student in Culture at UFBA, with an estimated age of approximately 60 years old; the other is around 45 years old. Both identify as black.

The interviews aimed to gather information about the cultural manifestation “*capoeira*” as an organizing vision of the world: its symbolism, its identity aspects, its assumptions in the body, its gestural memory and its corporeality.

The script for the semi-structured interviews had the following themes as guidelines: *Capoeira* as knowledge, *Capoeira* as learning, *Capoeira* as resistance, *Capoeira* as a brand.

The body within this perspective is adopted as a socio-historical discourse as a way of being, positioning oneself and relating politically in the world. By grasping this dimension of the body, which is not given but rather constructed culturally and discursively and appropriates the marks of culture (Louro, 2000), anthropologically, we can confirm the body as a discourse, a social construction

conditioned by a historical context and particular worldviews, which go beyond anatomy and physiology (Gomes, 2002).

Gomes (2002) argues that the black body only acquires meaning when it is thought of from the core of the Brazilian racial classification system and that, as it is also related to an aesthetic dimension, it can be considered or not as an ancestral African reference.

Therefore, *capoeira*, as Afro-Brazilian knowledge linked to the body, holds evidence of how this way of seeing the world can be expressed through the body as discourse, which we call here body-discourse.

In this context, we identified discursive marks – from contact with the masters, guardians of *capoeira* knowledge – as a path to construct a notion of body that is more articulated with the African worldview. The aim was to distance ourselves from the stereotypes typical of colonial discourse that reiterate the submissive body. This path allowed us to use the metaphor of lenses, in allusion to the artifact that allows for the improvement of the act of seeing in situations of deficiency that distort the colonial vision, in this case.

The assumption was that the trajectory of struggle and resistance in SFP – a territory whose surroundings are home to seven other quilombos, which held Afro-Brazilian knowledge – could be analyzed with the help of this characterization of the body-discourse through *capoeira* expressed in the speech of the masters, safeguards of this worldview; and of schooled science (in the marks of the speeches and in the proposition of SV activities).

We can see the weighted body as a sign and an ideological expression from the Bakhtinian perspective. In these terms, it carries a set of values, beliefs and worldviews, produced amidst social interrelations, and it is not possible to understand it only as a biological fact. Furthermore, it is also essential to understand the specific codifications that the body holds within a social group – without generalizing its different forms of expression in different cultures – as well as the historical, social and ethnographic context in which it is inserted (Gomes, 2002).

We found – when focusing on the phenomena in SFP during the mediations and in the implementation of pedagogical activities with SV, both through the interpretative key of *capoeira* and science – that the intercultural *ginga* is materialized, therefore, in the discursive marks produced on the body.

INTERCULTURAL *GINGA*: ANALYSIS AND RESULTS

The relationships established in the space-time of the SFP community – through the pedagogical intervention of UFBA university students and the use of their work methodologies – with the residents of the remaining quilombo territory, who experience the impasse of safeguarding their oral traditions and rites and defending the memory of their ancestors, will be detailed here through intercultural *ginga*.

In the context of research, intercultural *ginga* proposes connections and analogies and points out disagreements and possible consensuses in the face of the extraverbal context, a determining component for us to understand the meaning of the speeches given, following the studies of the Bakhtin

circle: “no matter how much value is given to the purely verbal part of the statement [...] not a single step will be taken towards understanding the total meaning of the colloquium if the extraverbal aspects are not considered, since the extraverbal context makes the locutions full of meaning” (Volóchinov; Bakhtin, 1976, p. 5).

In these terms, Cereja (2012) argues that the attribution of meaning to the theme occurs beyond the literal meanings indicated in the dictionary, given that it assumes, in the act of enunciation, the identity and role of the interlocutors as well as the domains through which the signs transit.

The intercultural *gingas* observed through the two aforementioned lenses, *capoeira* and Science Education, supported by literature and the discursive marks found in the masters, will be highlighted from the perspective of the body-discourse.

Thus, when we look at the body, we visualize dialogues between the instances of knowledge analyzed, after focusing on the differentiated status in each of them: the meanings attributed to the body in Afro-Brazilian knowledge expressed by *capoeira*; and the historical and cultural processes outlined in Science Education.

The lens of *capoeira* was constructed from the elements underlying its symbolic universe, expressed in the discursive marks of the masters. These elements, which integrate a kind of worldview—with a differentiated logic of operating and producing knowledge—are found diluted in remaining quilombo territories and are corporeality, ancestry, musicality, and orality.

THE GAME, KNOWLEDGE, AND LEARNING THROUGH THE *CAPOEIRA* LENS

During the ethnographic immersion period, SV developed a training proposal centered on games that took place in a large hall, but with deficient infrastructure, given the lack of bathrooms, covering on the roofs, and the faded paint. The location was the *Associação dos Remnescentes do Quilombo de São Francisco do Paraguaçu*, located in the most rural region, with little paving.

When investigating the use of games by SV, the proponents were anchored in this pedagogical strategy, as they considered it a teaching element with a playful and integrative character that provides the opportunity for the dialogue of knowledge with actions and practices and can assist in the intellectual development of children through scientific concepts (Lira-da-Silva, 2008).

As proposed by Kishimoto (1996), the game was made viable in that reality as a means for proposing pedagogical content and borrowed recreational actions so that children and young people could appropriate the knowledge they were interested in learning.

The activities took place on the floor covered with tarpaulins – the university students organized small groups and placed some toys, sheets of paper and colored pencils to be used during the activities. Each group had approximately four children, accompanied by two university students.

The games initially consisted of questioning the children about their preference for themes and possible content to be mobilized during the playful propositions that greatly stimulated competition: the observed games explored physical aspects and motor performance and favored writing and logical reasoning, given the mediation carried out by the university students who incited these aspects.

In one of the approaches, the SV mediators referred to some children as “limited”, “because they were not literate”, and suggested that these children were unable to recreate the games or had intellectual difficulty in understanding the instructions of a card game that had been proposed.

The children who won the competitions were awarded toys. The others received their prizes at the end of the general program of the activity carried out by SV.

Huizinga (1999) addresses games as one of the oldest facts of humanity and a mark of the great archetypal activities in societies. Among the categories of games pointed out by the author, one of them would be the competition related to the Greek *agón*, a word associated with struggle, combat, dispute.

Based on this author's work, Alborno (2009) states that a significant part of Greek culture was *agonistic*; and the lives of the Greeks and their practices were endowed with competition, with their culture modulated around forms of struggle. Related to the concept of *agon*, in Portuguese, the term “agony” remained, which means that this type of game was carried out until the path of death.

The Brazilian professor states: “it seems evident that also in our time and in our predominant culture in the post-industrial global society, the agonistic impulse remains central and very strong” (Alborno, 2009, p. 81).

Huizinga (1999) states that competition can be considered a significant mark of the entire evolution of scholasticism and universities, with traces of this agonistic dimension observed in the scientific and philosophical planes.

The scientific lens highlighted these aspects during data construction and demonstrated that pedagogical mediations regarding the content and articulation of games endorsed successes, rewarded or overvalued those who achieved the proposed objectives in terms of victories, with a flow towards a more individualistic and competitive aspect.

Taking the game as a parameter from the *capoeira* perspective, it is important to make considerations based on the discursive marks of the *mestres*, which demonstrate distinct conceptions of the game in the paradigm that underpins the actions of the SV.

The game in the African matrix dimension expressed in *capoeira* is consolidated in a relationship of proximity and horizontality, as *Mestre Angola* states:

[...] I don't know if you've ever heard that in a capoeira circle the student can't take the berimbau from the master's hand? I don't know if you've also heard that the student can't call the master... the student can't do this, can't do that, can't do that other thing, okay... And they justify these impositions, these determinisms, they justify it with tradition. These people don't know that traditionally the oldest in some African cultures, bends down to talk to the child... which is to establish a relationship of identity... so establishing a relationship of identity in "capoeira knowledge" is to use... elements that they have in the 'matrix' cultures and here we are talking about African cultures... the behaviors, whether they are inclusive, not exclusive, are inclusive, of joining the new with the old, logically paying attention to the meaning, of being old in African cultures, but being old is not, is not a characteristic... of authoritarianism. Authority and authoritarianism are different things, okay?... and then we go to Eastern cultures, I'll give an example of the game of chess: in the capoeira circle you can't trip the master, you can't headbutt the master, you can't do this, you can't do that, but specifically in the game, do you play chess? I usually ask people who play chess if there is any move on the board that they can't make when they're playing with a chess master... now the game, can't it be a game in which only the king, only the king can beat or defeat the opponent? That doesn't exist.

In his words, it is noticeable that there is an interaction in which dialogue is the basis of

support, without the player's experience being underestimated or disregarded in the conduct of the game. Difference is assimilated as a prerequisite for the construction of knowledge in a relationship woven from reciprocity.

There is no hierarchical or coercive relationship in the *capoeira* circle, as there is a significant social dimension based on collectivity and horizontal knowledge, without different experiences being superimposed in the conduct of the game.

We also note the connection between ancestry, in the figure of the elder; and youth, which highlights the physical dialogue in the game that exceeds cognitive criteria and endorses a learning that permeates historical constitutions developed among peers.

In this sense, Abib (2004) states that the bodily dialogue in *capoeira* occurs in the form of ancestor worship. It originates from when *capoeiristas* crouched at the foot of the berimbau, listened to the drums of musicians and – to celebrate the history of struggle – the *ladainha* as a way of invoking the past of struggle and suffering and rescuing the memory and tradition of a people who remained in resistance for centuries in the face of colonial rule.

Other relevant dimensions of the game in *capoeira*, which provide a perspective of resignification of Westernized perspectives and are highlighted in *Mestre Angola's* speech, refer to the ethical and educational dimensions. The interaction based on mutual respect – as the *Mestre* points out: “*traditionally, the elder, in some African cultures, crouches down to speak to the child [...]*” – is demonstrated in the crouching position, when the elder bows down on an equal footing with the child as a bodily gesture of humility, as in the case of the *ojigi*, another example of reverence from Eastern culture, albeit Japanese. *Mestre Angola* continues:

[...] in the 'matrix' cultures, and here we are talking about African cultures, the behaviors, whether they are inclusive, not exclusive, are inclusive, combining the new with the old, logically paying attention to the meaning of being old in African cultures, but being old is not, it is not a characteristic of authoritarianism. Authority and authoritarianism are different things, okay?

Capoeira is defended as a game that is played together with others and not against others, as Oliveira (2007, p. 182) states: “*Capoeira* from Angola is an open totality (otherness), and its structure is ancestry (sacred). Ancestry is not a rigid set of moral sanctions, but a way of life”.

In this vein, Machado and Araújo (2015) state that, when considering the educational dimension of *capoeira*, we can think about its teachings in terms of forms of intrapersonal and interpersonal relationships, because teaching through the game of *capoeira* is deeply linked to the process of human formation of those involved and encourages them to constant self-reflection and self-evaluation.

The authors list as examples of triggering these processes the relationship with their peers, with themselves and with the community when they say that “the commitment we learned to have with our group comrade, or with our elders, we need to learn to have with ourselves, first and foremost. We learn to broaden our view of things, of each situation, of life and the world” (Machado; Araújo, 2015, p. 99).

When we return to the excerpt from *Mestre Angola's* testimony, in which he reports the establishment of a “*relationship of identity*” during the circle, we observe that his speech expresses that

among peers, during the game of *capoeira*, there is a greater intentionality that is the search for recognition and affirmation of the values implicit in the cultural manifestation, which indicates that, when playing *capoeira*, the goal is not an individualistic goal in which the player carries out a dispute, a competition so that, upon winning it, he becomes the winner.

The central meaning is that of the players' shared responsibility for the perpetuation and preservation of this knowledge; ancestry is an indelible mark on *capoeira*, represented in the figure of the master, who is responsible for protecting and safeguarding the traditions of the rite to share with his successors.

When we look at the emerging indications of traditional Afro-Brazilian knowledge, it becomes clear that, rather than focusing on learning concepts from different areas of knowledge through games in a playful way, we can focus on the relationships between residents, considering the assumptions set out by the masters and emphasizing an interaction that is based on duet and not duel.

Master Angola also refers to the political dimension in the game of *capoeira*:

That question you asked: how do you learn capoeira? Practice. It's good that it doesn't happen only during festive moments; Laughs... it's good that it becomes part of the process of freedom of that social group that wants to assert itself as a quilombo. Then, bring together the knowledge, the fighting strategies, right? There are two terms for fighting in English, which are "Fight" and "Struggle", and this fight is not "Fight", it's "Struggle". "Fight" is a symbol and "Struggle" are the actions of resistance against oppression. So as long as something is being done solely, solely, it is... based or supported by playfulness, it is not capoeira. Because playfulness brings joy to those who are watching.

SFP refers to this place that the Master talks about in his speech. As described, it is a territory that is in the process of consolidating Afro-Brazilian identity. The fight expressed by him in *capoeira* does not occur in the sense of competition, rivalry or brawl – as the English term “fight” suggests, or the spirit of the games organized by SV during the project – nor does it rely solely on the recreational principle.

The political dimension has a character of confrontation, of effort, of overcoming challenges, expressed in the other English term, “struggle”, and the games conceived from this perspective can reaffirm and value the local history of the residents of this community and contribute to the process of positive *quilombola* self-recognition, a conduct that goes beyond playfulness and fun or the assimilation of academic concepts.

The view expressed by university students in their speeches – linked to the limitation or possible deficit regarding the scientific literacy of young black men and women and children – may need to be darkened in this sense: in this *ginga* we observe that the nature of the game within this context may focus not on an individualistic perspective, but on another logic of thinking about the same, to resist ethnocentric views.

Aligning himself with Fanon and taking up his ideas, Mbembe (2018, p. 84) draws our attention when he says that

Frantz Fanon is, however, right in suggesting that the Negro was a figure or even an “object” invented by the White and “fixed” as such by his gaze, gestures and attitudes, having been woven as such “through a thousand details, anecdotes, stories”. We should add that, in turn, the White is, in many respects, a fantasy of the European imagination that the West has striven to naturalize and universalize.

This perception is fundamental as a way of undertaking a racialized reading, in a black territory, and evoking the clarity made possible by the lenses of analysis that enable the epistemic strategy of intercultural *ginga*, which allows not to fixate on where the focus of racism is – by principle of race, subtending itself in a spectral way of human difference, to mobilize, for the purposes of stigmatization, the exclusion and segregation of what is read as black, as also defended by Mbembe (2018).

The intercultural *ginga* constructed reveals to be dissident as the games in the community are viewed through the lens of science, contemplating a sphere that is more of confrontation and dispute. Although it uses the desires and interests of the residents, the mediation of these processes could use and emphasize the dimensions of the game in Afro-Brazilian knowledge, in the social, ethical, educational and political aspects, to contribute to a teaching that moves through dialogue and the decoloniality of educational processes, both in Science Education and in pedagogical actions related to any other field of knowledge.

THE MARKS OF A DENIED BODY AND RESISTANCE

The learning situation shown in Figure 1 below was proposed by university students, and undergraduates at SV, involved focusing on and analyzing aspects related to human anatomy through the presentation of a game developed by the monitors, with the title: “Getting to know the human body”.

Figure 1 - Game “Getting to know the human body”



Source: created by the authors in 2019

The children participating in this group of activities drew a card with biological information corresponding to the organs of the body and handed it to the monitor so that, based on the information

read by the monitor, the children could guess the corresponding body part and later locate it in the figures. The descriptive information used the discursive genre and codes of scientific language.

In this sense, we can address the next intercultural movement of dissent identified between traditional Afro-Brazilian knowledge and Science Education.

As we observe the scene, some colonial discourses echo that dialogue with the larger scope of events highlighted here as a backdrop for discursive analysis, starting with the title of the activity: “Getting to know the human body”.

Thus, we ask: what body paradigms are presented as the norm in this activity? How are the gestural relationships and interactions established between children from the community and university students during the proposal? What body is this to be known: one, fragmented?

In the scene, there are three non-white girls and two white adults (a man and a woman) around posters that represent two human bodies: a white boy and a white girl.

They are all located in a rural community, where most of the residents are black. These children are very enthusiastic about the monitors' invitation to participate in the SV project. More than that: the monitors in this scene, specifically, are some of the most popular among the group of children and adolescents: young white men with straight hair.

The gender identity of the figures used is shown by the colors pink and blue, culturally established references as determinants for the construction of femininity and masculinity, which contributes to the maintenance of fixed and binary identities. Again, we observe the dialogue with the studies of Hall (2014) when the author problematizes and (de)constructs identity perspectives, based on the concepts of identity and identification, contrasting consensus engendered in society that such processes are characterized solely by the recognition of origin and common aspects shared between groups, with fixity in these patterns.

The marker “race” points to whiteness, which converges with the identification of monitors who are also white and, in this context, represent Science that has also been whitened. These are not random criteria. During the course of the research, we noticed how the construction of bodies conceived within the cultures of Science and the traditional Afro-Brazilian matrix, in this case, occurs in the discourse plan; and the hierarchical and conflicting arrangement between both in the symbolic plan.

In a country of cultural diversity and the legend of racial democracy, it is common to hear the discourse that we live immersed in a multicultural Brazilian society, without any kind of problematization regarding this supposed democracy in the sense of focusing on the asymmetries and tensions implied in this reality. Apart from this issue, “the white, heterosexual, urban middle-class, Christian man” (Louro, 2000) has the status of standard reference for other identities. Because he does

not have a defined identity, but rather a supposed and presumed one, it is represented as a prerogative.

They were children constructing their identities mediated in their relationships with other peers who, on a hierarchical scale, assume a normative identity: white as synonymous with human. When criticizing the idea of rigid and unified identities, considering theorists such as Lacan, Foucault, Butler, Bhabha, among others, Hall (2014) delved deeper into the concept of identity constitution forged at the core of power relations, based on difference and not outside it, through discursive constructions.

Regarding the focus of the proposal associated with the anatomy and physiology of the body during the game, as we said, we perceive a kind of dismemberment of its parts still present in science teaching. According to Trivelato (2005, p. 122), “[...] there is a problem of size in including the human body in biology teaching”. This fact is mainly due to “[...] because of its size, the human being fits into teaching, only in pieces” (p. 122).

In Natural Sciences, knowledge of the body is related to the separation and analysis of its anatomical parts and physiological systems, and the body is treated in a biological manner both at school and in textbooks that present it outside of a social context, without discussing the power relations that permeate that scenario (Matos, 2007; Verrangia, 2014).

In traditional Afro-Brazilian knowledge, as already demonstrated, we observe a different conception of the body, incongruent with that focused on Science Education. This Euro-Western duality between body and soul – a discursive mark of science and its ramifications as we have noted throughout the discussion – can be problematized in the face of more integrative views, such as in the African and Afro-Brazilian matrix (Verrangia, 2014).

Mestre Angola indicates that the *capoeirista's* body can be touched, but *capoeira*, the traditional Afro-Brazilian knowledge produced by the body, cannot. Because it is a body that reacts, resists, fights, communicates, it is plural, a body that enters the circle and is not fixed or bound by binarisms: white or black, man or woman, man or nature.

The following excerpt from the interview with *Mestre Regional* highlights a vision of the totality of the body as a reference for Afro-Brazilian knowledge.

[...] when I talk about capoeira, I only play capoeira when my body tells me to, I will train and play at the right time. There are days when I feel like playing but I don't feel like talking to anyone... Sometimes I'm upset, I go to the beach, swim far away, relax, when I feel good I come back, see if I feel like it, see if there's a good atmosphere in the capoeira circle, in the game, the atmosphere is good, I play, I play [...] if at the moment, it calls me in my blood, inside me I go there and get inspired and play, but if I don't feel good I go home, and stay at home and I will only play when I feel good, when I'm well spiritually in all aspects.

The *Mestre* in his speech about the game of *capoeira*, expresses the idea of corporeality and says that the body dialogues with him, as an autonomous, totalitarian instance, with desires and wishes, as reiterated by Moreira (2012, p. 145): “Corporeality is a sign of presence in the world. It is the breath

that became a verb and was incarnated”. The body IS.

At the same time, the young SV monitors expressed their concern about conducting pedagogical action based on the lens of science, through the premises of STS. Although the scientific knowledge disseminated was focused on playfully, there was a methodological and procedural organization linked to conceptual content, which establishes a commitment to some important elements that support Science Education from this perspective.

When reflecting on the multiplicity of approaches to the concept of Scientific Literacy (SC), Sasseron and Carvalho (2011) present the work of Bybee (1995) in the article “Achieving Scientific Literacy”, in which the author describes what he calls “dimensions of SC” and divides them into some extensions. Among them, we highlight functional SC and conceptual and procedural SC – and the scope of both in the dissemination of scientific knowledge.

Although these dimensions are focused on teaching scientific knowledge in the classroom, these categories are in line with some of the premises of the SV. The children had access to scientific terminology and language mediated by the pair of monitors.

Bybee (1995) explains the functional AC extension and its correlation with the fact of considering the use of science vocabulary by scientists and technicians and advocates the relevance of such use and correct employment by students in the development of the activities carried out, so that they become literate through this language - which we also configure and understand as discursive marks of Science Education.

When explaining conceptual and procedural AC, Bybee (1995) guides on the importance of these same students understanding how concepts are consolidated and, in particular, how knowledge about the world is constructed, in the logic of science.

Therefore, the empirical experience in SFP has been pointing out intercultural *gingas* that sometimes indicate approximations and sometimes divergences potentially capable of creating gaps for an in-between place (Bhabha, 2007), an articulation of differences that aims to overcome elements of colonialism that remain and reverberate, by prohibiting bodies and inferiorizing other forms of knowing that do not belong to its rationality.

Science education committed to decolonial practices in the search for a citizen dimension of science challenges modes of action permeated by a mentality in which the simple act of interacting and establishing exchanges between cultures – ignoring the social locus occupied by the subjects and the hierarchical relationships experienced by those involved in a given pedagogical action – will contemplate the oppressed voices. Likewise, it questions the unequal social structure instead of feeding it with actions that confine learners to teaching that is functional to the system (Walsh, 2009).

An important aspect to be highlighted also refers to the perceptions that the researcher obtained regarding her formative process, especially during the immersion period, when interacting with *Mestre Angola*.

At the time of her meeting with the *capoeira mestre*, the researcher in training acted as a representative of the academy, which historically is ideologically crossed by Western culture and modern science and constitutes a hegemonic discursive locus to the detriment of other spaces and knowledge.

Mestre Angola was the research participant who, in this crossing, presented himself as a

representative of the ancestral knowledge of Afro-Brazilian origin “*capoeira*”.

Although the *Mestre* had already signaled, since the invitation, his desire to contribute and reference the research, in the first meeting with the researcher, in an unusual way, he asked her some interesting questions to investigate what her real perceptions and interests were about *capoeira* and to evaluate its premises and values – at the same time, during this discursive *capoeira* game, he took her to a traditional fair, located on the outskirts of the city of Salvador, known as *Feira de São Joaquim*.

When faced with the environment, the researcher realized that – even though she was committed to seeking a praxis that moved towards a decolonial, anti-racist and intercultural pedagogy (Candau, 2008) – her system of representing values was organized based on an ethnocentric power construct.

This perception arose when the researcher, upon observing the territory, its weaknesses and its odors, identified that her lens and the way in which she focused on that space-time were permeated by feelings of tolerance and respect as conservative ethical dimensions, given that, most of the time, these are feelings that appear to be generous, but deep down they demarcate superiority and essentialism, because many times we accept others because we have the idea that their difference is fixed, their culture is stereotyped, and that all we can do is accept them (Mantoan, 2015).

Dussel (2005) argues that our lives are organized based on a construct of an ethnocentric power system. The author presents this ontology as an emerging process from another concept, which he calls totality: Western philosophical thought, which organizes the world and our experiences of being, in an assimilationist dimension of European reality. The counterpoint, according to the author, would occur through what he calls proximity: the overcoming of hierarchical relationships in search of an approximation in justice, in the shortening of distances, “acting for the other as the other” (Dussel, 2005), through fraternity, an anachronistic connection.

In this sense, the bond through experience – demonstrated in this study, as in SFP – between traditional Afro-Brazilian knowledge in the figure of the residents and Science Education, in the role of the SV members, signaled that, although at times the feeling of strangeness emerged, there was a movement towards overcoming the view that focused only on the gaps in the surroundings; there was a desire for sharing and mutual resignification in the interactions, based on the principle of reciprocity.

These moments were configured as bridges, intercultural experiences, based on cultural difference as an aggregating element for mutual enrichment.

FINAL CONSIDERATIONS

Through the constructed lenses, we verified concrete elements that the black bodies that form a *diasporic community, the diasporics*, were the basis for the construction of the country not only through the strength of their manual labor but also, and above all, through the production of a vast repertoire of ancestral knowledge that kept them connected to their land of origin, perpetuating values and negotiating their existence, in various dimensions of social life, such as *capoeira*.

This implies thinking that these bodies were not only subjected. In addition to the country having been forged and founded on black corporealities, there was a production of these political actors that is cultural and symbolic and whose status is immaterial and intangible with the potential to resignify

meanings, construct other critical versions of history.

Capoeira, as a lens of traditional knowledge of Afro-Brazilian origin, provides us with this perspective by being present in diluted forms in territories with black ancestry and being identified through its symbolic universe with elements such as corporeality (orality, ancestry) and memory to evoke knowledge and learning and transcend the rituals of the circle to confront and resist the colonial discourse that reverberates and throughout the historical process insists on erasing, subordinating and silencing these Africanities, materialized in the body as language.

The hegemonic resources of colonial discourse operate across black and white subjects and, as explained in our text, consequently, educational processes and practices in the field of Science Education, given the implications of the area in its historical consolidation and the support of structural racism present in society.

We observed such information in the face of interference and interventions by SV, a project recognized for its history of developing pedagogical practices and actions in the STS scope, in the SFP community, a remnant of *quilombos*.

Through the units of analysis, we identified the characterization of some intercultural *gingas* based on the educational processes emerging from the encounter between the SFP territory and the SV project.

The proposition of some games that articulated aspects commonly observed in the school context due to the transmissive bias and also moved through models of reproductive and assimilationist practices, preserving signs of a science still permeated by colonialist discourse, pointed to retreat and dissent.

The practices described and manifested by educational processes – which enabled the crossing of the intercultural border and promoted the creation of an in-between space triggered by the recognition of cultural difference as a reciprocal enriching element – culminated in consensual movements for access to scientific language. As it moves, it transitions from a pedagogical strategy based on a positivist philosophical perspective – whose view conceives scientific knowledge as linear and cumulative – to a mediation based on traditional Afro-Brazilian knowledge with cyclical dimensions and values.

The revelation of inquisitorial looks, imbued with coloniality, and the denial of the other, of their otherness, are revealed in the relationship and presence of difference, based on the limiting situations described here, in the meetings established in SFP and Salvador. In this proximity, Dussel's premise becomes evident, when he mentions the need to “act for the other as the other” (Dussel, 1977, p. 23), through fraternity and an anachronistic connection.

The materialization of *ginga* occurs in a zone of ambivalence and negotiation: the difference is marked by the hegemonic discourse that aims to divide, to try to demarcate what is acceptable, civilized and credible and to postulate *ginga* as the very authority of culture as knowledge of the truth – and in the resistance of the game, of going, not going, this escapes, is evidenced.

This alternation demonstrated in the *gingas* can illuminate possible paths for overcoming the colonialist discourse that has as one of its key assumptions the degeneration of the other, of his/her cultural identity, so that this *other* aims to deny himself/herself to the detriment of an ideal, universal and

hegemonic standard of culture. In these terms, the colonized must assimilate the culture of the colonizer as a way of achieving a civilizing experience, albeit partial, without this other assuming the place of the colonizer.

Furthermore, *gingas* lead to reflections on teaching and learning from a civic perspective, to develop a broader political character that goes beyond the transmission of school and scientific content, which does not simply require the naive reproduction of already consolidated pedagogical processes but also requires questioning the discourses and matrices implicit in these dynamics.

The lens of *capoeira* focused on the phenomena, presented a unique way of looking at and perceiving reality, and highlighted another worldview, its strengths, and Afro-Brazilian knowledge as a reference and secular foundation that continues the *ginga* and resist all sorts of strategies of erasure and marginalization to also allow access to historically constructed scientific knowledge as a way of overcoming another strategy of racist colonialism, which is the removal of black people from the school curriculum. This is not about denying school science but about establishing intercultural *ginga* as a form of decolonial learning.

The work points to a critique of the epistemology and ontology of modern science that still reiterates the construction of social and pedagogical practices of discrimination and marks the black person as the antithesis of the human, with a discourse supported by a positivist perspective, still rooted in the matrices of coloniality – repressive of other ways of being and producing knowledge, sometimes considered primitive or irrational –, and culminates in guidelines for decolonial educational processes, guided by subversive aspects in overcoming these ontological aspects of the colonial discourse that fixes, invades, destroys the other.

From the connection between Afro-Brazilian knowledge and Science Education, a vigorous partnership can emerge, capable of creating fissures that question the subjugation and civilizing tone that have historically permeated Science, to subsequently seek negotiations, build bridges and dialogues capable of conducting liberating educational practices that oppose hegemonic views of the body and assist in the consummation of more just and equitable educational processes.

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The authors declare that they have no conflict of interest.

Errata

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