Nísia Floresta: a voice for the recognition of women in the history of the curriculum

Nísia Floresta: uma voz por reconhecimento das mulheres na história do currículo

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Abstract

In this text I discuss the dilemma experienced by the educator Nísia Floresta, in the face of public attacks suffered, due to her curricular proposal for the education of women in the 19th century. The article illustrates how, historically, women have suffered from androcentric attacks in unfair and unequal social settings in the struggle to learn and teach mathematics. To this end, in structural terms, after a brief introduction on the adequacy of the feminist debate to curriculum studies, there follows a discussion on the history of the curriculum, and a section that analyzes newspaper publications with an aggressive and defamatory content about Nísia Floresta. In methodological terms, based on a survey in the digital files of the National Library of Rio de Janeiro, excerpts from texts published in the Jornal O Mercantil were analyzed, reporting on the educator's achievements, based on the concept of “recognition” of the feminist philosopher Seyla Benhabib.

Keywords: Curriculum, Mathematics Education, Critical Theory, Seyla Benhabib, Feminism.

Introduction

All struggles against oppression in the modern world begin by redefining what was previously considered "private", non-public and non-political issues, as issues of public interest, as issues of justice, as sites of power that need legitimation.

-Seyla Benhabib

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This paper depicts part of a research project that seeks to analyze discourses of/about gender that are politically constructed and reinforced, as well as to give visibility to the structures of legal, social, and political systems and the ways in which these discourses function to produce and reproduce domination of masculinity, and subordination of femininity, in settings of teaching, research, and women's interaction with mathematics. Within the scope of this research, historical examples have been listed to illustrate how discourses, whether legal, political, religious, or educational, have always expressed submission/subordination of women to men. Here I dedicate myself to one of these examples: that of the educator Nísia Florestas who, defending education for women beyond what was allowed at her time, founded a school whose curricular proposal contemplated components that until then were reserved to men, such as the study of mathematics, beyond elementary operations, and scientific education.

Thus, my intention with this article is to show how Nísia Floresta is a protagonist in the history of curriculum in mathematics education by fighting for the recognition of women, facing and proposing to subvert the most striking and cruel characteristic of gender injustice: androcentrism. This being "the authoritarian construction of norms that privilege characteristics associated with masculinity" (Fraser, 2001, p. 260), which, along with cultural sexism, which is the "sharp devaluation and depreciation of things seen as feminine paradigmatically - but not only - of cis women" (Fraser, 2001, p. 260), was the structuring axis of mathematics education in the nineteenth century, depriving women of studying mathematics and also of becoming trainers of other women.

The historical context in which Nísia lived is the scenario of the enactment and validity of the first great educational law in Brazil, the Law of the Schools of First Letters (Brazil, 1827), establishing that girls and boys studied in distinct institutions and with distinct teaching plans. It is worth noting that the Law of 1827 provided for girls' schools in the more populous cities and towns, but these were not even established until 1850, and many of those that were created were not provided for lack of teachers. By law, women could only have teachers, because according to Castanha (2013), it was not admitted that a girl had proximity with a man, not even in the classroom.

Article 11. There will be schools for girls in the most populous cities and towns, where the Presidents in Council judge this establishment to be necessary. (Brazil, 1827, our emphasis).

Article 12. The teachers, in addition to what is stated in Article 6, with the exclusion of notions of geometry and limited to arithmetic instruction only to its four operations, shall also teach the crafts that serve domestic economy; and shall be appointed by the Presidents in Council, those women, who being Brazilians and of recognized honesty, show themselves to have more knowledge in the examinations carried out in the form of Article 7. (Brazil, 1827, our emphasis).

The arguments used for women to be educated in the 19th century, according to a curriculum proposal that provided only elementary concepts and operations, is a good
example of what I am trying to explain. An elite of white men did not admit an education with equity between boys and girls, assuming that women should be occupied with chastity and knowledge to be good mothers and wives. As only men advanced to higher levels of education, women were discriminated against as less capable.

And in this scenario, the educator suffered persecution, defamation, and injustice as she fought for the right to education for girls and women in a society organized by gender relations that imply inequalities and disadvantages to the experiences of being a woman. Here I am not dealing with a total and unrestricted appreciation to the "Nisian" thought, because I am aware that Nísia, at the same time that she teaches girls to use reason, to appropriate diverse knowledge, criticizing machismo and patriarchy; she does not break with the prevailing social order, being, inclusive, widely and deeply influenced by Auguste Comte's positivism and believing in an adequate training to make women "enlightened matrons" (Rosa, 2012, p. 184). However, it is undeniable how much Nisia challenged an androcentric culture, facing and overcoming opponents, by founding the "Augusto College" - idealized to teach girls what they could not learn because they were women, and as a result being a name to be celebrated when thinking about curriculum in mathematics education.

The concept of recognition as a contribution to the curriculum debate in mathematics education

[... no matter how hard we try, we can't stop making sense'. We will try to make sense out of what does not make sense. Seyla Benhabib³

The field of curriculum studies, as well as the theoretical perspectives that define and discuss curriculum, is diverse, plural and multifaceted. One avenue that has shown promise to give chorus and grounding to the debate in this field is the feminist strand.

Birolli (2017) has argued for establishing connections between those who speak and the world they speak about, between theory and the epistemological and political conceptions that emerge from them. In this sense, I place myself here as a teacher and researcher who has been dedicated to thinking about curriculum in mathematics education, valuing the relationship between women, curriculum, and mathematics throughout the history of education in Brazil. Thus, the tone of this text is aligned to defend the importance of the social position related to the gender dimension in the material production, as much as in the knowledge production, in the history of curriculum in mathematics education. To this end, I increasingly argue for evoking women's experiences in the curriculum-mathematics binomial in order, as Allen (2015) argues, not to condone the reflexive detachment of people in relation to their respective bodies and training contexts, and even "to put in check exclusionary dynamics of knowledge production, as well as the partial realities that inform them" (Birolli, 2017, p.188).

According to Goodson (2015), we are currently witnessing the collapse of the ability of grand narratives to explain the past, and an alternative way to study the history of the curriculum would be through the history of people's lives and, especially, the history of struggles of these people so that curricula were instruments to combat injustices and inequalities.

Despite the centrality, in the history of curriculum in the debate in mathematics education, of the feminist struggles and the importance of those who fought around the world, the alignment to different traditions of thought, implying conceptual and methodological referential for the way they treat this centrality—be they assumedly normative or not. As a result, the rationalities involved in the debate may vary a lot. The forms of debate that shape the debate also vary. Each of the possible conformations for the curriculum debate in mathematics education can be understood as epistemic communities, because according to (Biroli, 2017, p.174), that imply the sharing of a set of expressive resources, that is, of possibilities to say something about curriculum.

In this article, I bring as a reference for this debate the concept of "recognition" that Seyla Benhabib\(^4\) assumes when she argues that "democratic equality is to have opportunities to act in the public sphere and in society as a whole," mediated by impartial instances, where "recognition is the right of inclusive narratives to occur without domination" (Benhabib, 2002, p.08). The concept of recognition is pertinent to a "conceptual architecture" (Foucault, 1997, p.77) in which mathematics education, as a knowledge area, is directly related to its coherence as a commitment to social justice.

Mathematics and curriculum, mathematics in the curriculum, curriculum in mathematics education, in turn, are not conceptual a priori with rigid boundaries, but effects of dynamics regulated by their own production of knowledge in each of these areas (mathematics, curriculum, and mathematics education) that articulate and interrelate when they interact either in educational policies, in pedagogical practices, in academic research, in epistemic and philosophical systems. It is also worth noting that the borders thus drawn not, Biroli (2017, p.174), only divide the validity claims recognized in each area, but also those that are not, that is, those that are silenced or delegitimized.

In this sense, the phenomenon that relates curriculum, mathematics, and mathematics education, invariably (and here I run the risk of relative superficiality by not making explicit an elaborate concept for "curriculum," "mathematics," and mathematics education”), involves hierarchical knowledge that recognizes, and values claims and conceptions of knowledge that it harbors. And so, in this phenomenon, historically, the claims and conceptions involved have excluded or unequally included knowledge, and as a result people, who were not recognized at the time.

\(^4\) Seyla Benhabib was born in September 1950 in Istanbul, Turkey. She graduated from the American College for Girls in Istanbul and later, in 1970, migrated to the United States and completed her studies in Philosophy at Brandeis University, under the guidance of Alasdair MacIntyre. Benhabib’s intellectual path, linked to Critical Theory, is marked by many debates on a wide variety of subjects. In contemporary times she has dedicated herself to discussing issues such as cosmopolitanism, global governance, and human rights from a feminist perspective. (Assis Silva, 2020, p. 448).
Taking one of the dimensions of this phenomenon, namely, the one related to the teaching and learning of school mathematics. Situating women in this dimension, throughout time, we are faced with the right to learn and teach mathematics that can be interpreted through the aegis of inequalities that are not justified by nature, but were socially and historically constituted, changing conditions in different historical contexts. Until the nineteenth century, "the inclusion of women in the patriarchal family order determined, to a large extent, their almost total exclusion from the public order" (Pinto, 2006, p. 380), making them lacking recognition of concrete existence in the universe of those who learn, teach and produce mathematics in the public sphere, having as the only possible order of inclusion, as Benhabib (1992) rightly points out, the discourse of qualification for marriage and motherhood - pillars of patriarchal society.

And this has resonated throughout time, since, in the current Brazilian society, women are the majority, in absolute numbers, in many situations related to mathematics (Brech, 2018; Assis, 2020; Brazil, 2020a; 202ab; Almeida & Castro Almeida, 2021; Cordeiro & Barboza, 2021; Gorziza, Piltcher & Buono, 2021; Unesco, 2021.). The fact, however, that we are included in some social order does not presuppose that we are all included with the same conditions and, much less, that we all enjoy the same rights guarantees. The quantity is important, being synonymous with progress and the result of many struggles. However, it is also important to discuss the quality with which cis and trans women are inserted in the production, study and teaching environments of mathematics (Aparicio, Alcaide & Zuasti, 2001; Polizel, 2018; Cunha, Miranda & Rambo, 2020).

For Seyla Benhabib, professor of political science and philosophy at Yale University, the above is a matter of recognition, because for Benhabib (2002) it is crucial not to reduce identity and recognition to identity politics that essentialize and reify affects. In other words, the presence of women in spaces and places from which they have historically been excluded cannot happen without the (re)conceptualization of exclusion at the level of subordination, according to an intersectional analysis of redistributive justice, of the questioning of institutionalized patterns of power and disparities, having a normative foundation based on a theory of justice that recognizes the specificities of being a woman. This suggests that recognition must presuppose a fundamental understanding of and respect for the nature of each person. This is without mitigating the power relations that reproduce hierarchies, subordinate status, and biased policies, and the immense consequences of oppression around the world.

And in this sense, Benhabib (1992; 1999; 2002; 2004; 2007; 2008; 2011, 2020a; 2020b), particularly, interested in discussing, contemporarily, women in culture and in multicultural populations, produces arguments that allow us to think recognition, based on "democratic equality", considering the historical condition of Brazilian women in a situation of profound social inequality and restriction of rights to education. According to Pinto (2006), the notion of "democratic equality" emphasized by Seyla Benhabib in her work is especially important, especially given the current state of the art of democracy theory and the practices of implementing compensatory policies. That said, putting the issue of equality back into the debate about democracy opens space to discuss equality, thinking about equating
freedoms. And so, the history of the curriculum in mathematics education can be accessed through the struggles waged so that among the practices related to it, the liberal notion of training to occupy "a fitting place" in the society of the time did not prevail, but to a universal training based on principles of social justice.

Thinking about a universal education based on the diversity of women's nature of being throughout history has profound political and practical implications for thinking about organization and curriculum development for learning and teaching mathematics, especially if equality is taken as an a priori for a democratic education. Thinking about women and their current possibilities to learn, teach, and produce mathematics, with all the specificities of being a woman (cis and/or trans and/or queer), implies knowing the personalities involved and the struggles.

For Benhabib (1992; 2002, 2008; 2011, 2020a; 2020b) a democratic structure must be based on three assumptions: equitable reciprocity, voluntary self-identification, and freedom. The first guarantees equal rights, the other two are related to the fact that each person is socially related to a group, with a degree of freedom to deal with social pressure and sanctions that may arise from decision-making. In this sense, the struggle for recognition, in the case of women, involves the "possibility of enjoying democratic structures that support their existence, protecting them from cultural forms of coexistence that reinforce conditions of their antipersonification and domination, since most cultures tend to be patriarchal" (Benhabib, 2002, p.89).

The contribution of Benhabib's work to the issue of education, as a possibility for women's emancipation, points out that women who are in contact with different cultures and with the feminist struggle are more likely to question the culture in which they are immersed. And in this sense, it is advocated that mathematics educators and scholars of mathematics education, when discussing the curriculum, do not refrain from pointing out the poor, black, indigenous, working people, cis/trans/queer women, LGBTQIA+ and many others, whose social marks were (are?) reasons for exclusion (exactly because of the non-recognition of difference), and that have suffered so much with androcentric discourses for daring to bring these marks to the public sphere, claiming recognition for themselves and many other people.

Nísia Floresta: an educator ahead of her time in the struggle for recognition

While throughout the old and the new world the cry - emancipation of women - resounds, our weak voice is raised in the capital of the Empire of Santa Cruz crying out: educate women! -Nísia Floresta⁵

In this section, besides relating a little of the history of an educator who was a protagonist of feminist stances and deeds in the 19th century, we present some excerpts of

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⁵ Floresta (1989, p.02)
texts published in the newspaper "O Mercantil" that were collected in the digital archives of the National Library of Rio de Janeiro. This survey is part of a research that analyzed constructed and reinforced discourses of/about gender, giving visibility to the structures of the legal, social and political systems and the way these discourses functioned producing and reproducing the domination of masculinity and subordination of femininity. The results of this survey illustrate how legal, political, religious, or educational discourses have always expressed submission/subordination of women to men and made girls and women suffer who, like Nísia Floresta, dared to challenge the prevailing order.

Dionísia Gonçalves Pinto, a Potiguar living in Olinda, published her first book under the pseudonym Nísia Floresta Brasileira Augusta. The work was a feminist treatise in defense of women as intellectual beings who should not be excluded from the fundamental rights of humanity, opposing the dominant idea of women as beings of beauty, innocence, and chastity. For Nísia, education would be the way to transform this ideology par excellence and the initial step towards the emancipation of women. She founded a school in the city of Rio de Janeiro, considered a milestone in the history of women's education in Brazil, and published articles in major newspapers defending women's education, including mathematics.

The opening of her school was an opportunity to put into practice the education for women that she defended in her writings. The "Augusto School" adopted as a pedagogical practice the teaching of subjects that until then were reserved for men, such as: the study of mathematics, beyond elementary operations; sciences, Latin, French, Italian and English, with their respective grammars and literatures; the study of geography and history of Brazil, and the practice of physical education. (Castro, 2010).

This pedagogical proposal was considered immoral at the time, because the woman's education could not go beyond learning how to sew and embroider. The speeches that, expressing the morals of the conservative families, attacked it and many of these attacks were published in the newspaper "O Mercantil" from Rio de Janeiro.

The audacity of the director, her sui juris character, her already known ideas in favor of the rehabilitation of women, caused uneasiness among her frightened rivals, and among the catoons, who hated that woman who was a man, preaching the emancipation of her sex. (O Mercantil, December 24, 1846, our emphasis).

According to Duarte (2010), Nísia faced criticism and slander simply for presenting herself as the director of a school that offered instruction for women, beyond what was allowed by conservative society. But she was not intimidated by the offenses and continued to defend the importance of women's education, pointing out the need to overcome the conservatism of the time. For her attitude of defending her position, Floresta was accused of expressing masculine behavior, which earned her severe personal insults.

Ms. Elisa, whose author corrects herself and writes Nísia of Don Manuel's beach, whose school is better today than it was at Mme Tanière's last year, takes the greatest interest in the progress of her subjects. There was no lack of language work;

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6On February 15, 1838 he founded the Colégio Augusto in Rio de Janeiro and kept it running for 17 years (Duarte, 2010).
needlework was left in the dark. Husbands need a woman who works more and talks less. (O Mercantil, January 2, 1847, emphasis added).

The publications of O Mercantil convey the idea of male superiority, the foundation of androcentrism, linking education to the social construction of the differences between the sexes as the basis for a "harmonious" relationship between men and women. Nísia was attacked and disqualified for fighting for women's rights, defending an education that would enable participation in society, that is, an integral formation and not only that destined to transform young women into "well-educated" wives and mothers.

Let us go to Rua D. Manuel and look at the Colégio Augusto, run by D. Nísia Floresta Augusta. There are houses of education that have the bad taste to teach girls how to make dresses or shirts. But it seems that Dona Augusta finds this very prosaic. She teaches them Latin and mathematics. And why not Greek and Hebrew? Poor principal! She is so pleased with herself and her school; she is so intimately persuaded that it is the premier educational establishment in the empire, that it really hurts to tear her away from such a gentle illusion! Said Cauldron in one of his plays. Do you find it strange that he who has never seen the sun thinks that the moon is the brightest of the stars? Will you scoff at someone who has never seen the sun or the moon, and boast about the dazzling and incomparable splendor of Venus? No. So it is only natural that Don Nísia, who has never seen anything but the College itself, should put it above all others. There is more naivety than vanity in this opinion. We will only note that Ms. Floresta has forgotten the true purpose of education, which is to acquire useful knowledge, not to overcome difficulties without any real use. Be wary of the mule that makes him and the woman who knows Latin. (O Mercantil, January 17, 1847, emphasis added).

The discourse of the newspapers, defending the pedagogy of the other girls' colleges that emphasized the development of "domestic chores" and limited themselves to a superficial teaching of the native language and rudimentary notions of the four operations, censured Nísia Floresta for including subjects considered superfluous to the formation of women. Ahead of her time, Nísia defended the right to scientific education for girls, laying the foundation for generations of women who today are in schools and universities, learning and teaching.

For defending that women could master mathematics, there was even an anonymous defamation campaign against Nísia Floresta by the newspapers, which sought to achieve the moral and personal character of the principal, exposing the fact that she had married more than once, and because she had a background in mathematics, she knew how to count husbands, making analogies of this fact with depravity practices. For Duarte (2010), defamatory campaigns, pointing out "excesses" of the founder of the "Augusto School" were constant for years. However, it is interesting to note how the criticism was never related to the intellectual capacity or school management of Nísia Floresta, but always aligned to the attempt to subjugate her with a moral that disqualified by issues related to gender and sexuality.

This fact is illustrated by Silva (2014) when describing that when it was announced that Nísia's educational institution attended, for free, some students who could not pay, O Mercantil published a pun on words, saying that Nísia Floresta taught some students for free,
and still had time left over to "make jokes" with the students, insinuating sexual relationships between them. The comments disqualified the Augusto School and its program of progressive content studies, including mathematics, as well as speculating pejoratively about the personal life of its principal.

The criticism always came from representatives of the dominant and conservative ideology, who perceived as audacity a woman who, not being enough herself to break with the hegemonic gender normativity, taught another women knowledge so that they could break with it themselves. Some scholars of Nísia's life, such as Bezerra Mariz (1982), point out that her performance in the 19th century school life in Rio de Janeiro generated retaliations such as the publication of articles that insinuated love relationships with men, some priests, and women, among these some female students at the school.

It is interesting how throughout history the artifice to attack and disqualify women is almost always related to expressions, dimensions or behaviors linked to sexuality. And with Nísia it was no different. According to Câmara (1997), the educator fought hard against the "education of the needle" that, privileging a training to be a wife and mother in detriment of a scientific formation, of mathematics and language studies, kept girls and women away from an emancipatory formation. The instruction only to act in the domestic sphere was a fact so accepted as being the most correct, that there was no lack of those who criticized the Nísia Floresta school for including subjects considered superfluous to the formation of girls.

These criticisms were not necessarily pedagogical, but sexist attacks because Nísia denounced excluding models and announced inclusive curricular proposals in her school. And this stance was also assumed in her writings, in the work Opúsculo Humanitarian (Floresta, 1989), for example, she argues for the need of an educational reform that would guarantee the woman's right to a broader education, decharacterizing domestic education restricted to training to be a good and chaste wife.

Nísia's commitment to the training of girls at Augusto College certainly resonated with the education of her time, as students from this institution left able to teach and presented themselves to be hired in public schools, evidencing one of the concerns of "Nisian" pedagogy: an adequate training for women on a large scale which, in practical terms, meant access to mathematics beyond four operations. Even if for this they paid a high price: years of persecution and violence related to gender and the expression of sexuality that finally made them go into exile in Europe.

In 19th century Brazil, Nísia was the first woman to advocate for the right to scientific education for girls and women in public space. The call for recognition put the educator at the forefront of the moral imperative to recognize the equal status of different identities in society. In this way, the struggle for women's right to mathematics education beyond the four elementary operations and recognition can be considered together: the need to recognize women's identity in the nineteenth century. As a history of curriculum organization and development in mathematics education this can be seen as significant liberatory gains that materialized discursively and legislatively, thanks to struggles for the recognition of marginalized identities.
Considerations

Nísia considered the androcentric ideology of male superiority as the basis of education and the conjunctures of life, defending that the differences between the sexes do not justify the socially constructed injustices and inequalities. The educator suffered massive attacks from the media of the time as she denounced the condition of women, seeking recognition in the personal sphere (for the right to express herself in the world with dignity); in the public sphere (so that women would be seen as people capable of learning and teaching); in the sphere of law (for equality of instruction in relation to men); and in the sphere of social esteem (so that women would be welcomed politically when expressing ideas, defending opinions, and making decisions).

The story of Nísia Floresta, and her struggle for recognition, is an example of how bringing women's experiences into the debate allows us to redefine the boundaries between public and private in mathematics education. It is from the publicization of these experiences that the sexual division of labor, violence in educational teaching and research environments, the differentiated incidence of control over bodies in spaces related to mathematics, as well as the conjunctural accommodation between abstract conditions of freedom and socially tolerated structural situations of women's subordination, among many other issues, have come to the surface and become political problems of the first order and have taken spaces on the agendas of social and academic movements.

Feminist theories have politicized the curricular debate, forcing politicization beyond the boundaries of what is public and institutional and, thus, intensifying the recognition of what is fought in the private sphere by many women. On the other hand, the silencing of the gender perspective contributes to the depoliticization of mathematics education in general and in the curriculum debate within this area in specific. This is because the issue is not restricted to the exclusion or inclusion of women from spaces and places of teaching, learning, and research related to mathematics and mathematics education, but a structuring dimension of power relations in different spheres of life, constitutive of institutions and political values.

Contemporarily, the claim for recognition in curricular debates in mathematics education has been expressed through normative efforts for the reconfiguration of positions and identities in the political struggle, revising political thought and repositioning the problems related to the limits of democracy in the production of research, orientation to pedagogical practices, and educational policies related to the binomial curriculum-mathematics. Among the many dimensions of this revision, questioning the feminine-masculine binarism and glimpsing the abstractions necessary to sustain the collective subject "women" within this binomial have impacted theories and political struggles.

Women of the current and future generations who study, teach and produce mathematics need to know the struggles for recognition that triggered the rights they enjoy, so that they can not only pay tribute to the protagonists of these struggles, but, above all, be inspired to fight many others that are still necessary for women to be, in fact, included with
full guarantees of rights and equal participation in public spheres of/in/for scenarios of interaction with mathematics.

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