

Science, its rationality and governments

In *Ciência como vocação*, Max Weber (1979) argues that one of our weapons against the loss of humanization is scientific production. Science is at the service of self-clarification and knowledge of interrelated facts. It does not intend to show us the way, but clarifies the meaning of our behavior. Aware of our social problems, we can achieve the well-being of many.

In *Pascalian Meditations*, Pierre Bourdieu (1998) states, inspired by Pascal, in the same direction, that our greatest greatness is knowledge. According to them, “determined (wretchedness), man can know his determinations (greatness) and work to overcome them. These paradoxes all find their principle in the privilege of reflexivity” (BOURDIEU, 1998, p. 115).¹ In other words, science and the production of knowledge, be knowledge practical or not, help us build more humanity.

This editorial consists of a series of articles that are complementary, interact, and help us confirm the aforementioned statements. Although this was not our intention, the studies published here share the following characteristic: all work with research on education, are the product of research and reflections that bring us news, inform us on the reality of the education field in contemporary social life in Brazil.

In a recent statement, São Paulo state governor,² Geraldo Alckmin, said that Fundação do Amparo à Pesquisa do Estado de São Paulo (FAPESP – Sao Paulo Research Foundation) should fund fewer sociology studies, which add nothing, to encourage research in the health field, due to the dangerous epidemics of dengue, Zika virus and other diseases in evidence in recent months.

Contrary to the statement of the governor of the richest state in Brazil, responsible for the largest scientific production in our country and Latin America, fortunately the funding agencies of many states of Brazil and even the federal government have continued to promote studies and work which diagnose the problems of school and society. The studies made available in this issue of *Education and Research* affirm the necessary and emancipatory character of research and science in Brazil, regarding aspects of public policy, in the context of experiences in early childhood, primary, secondary, and higher education, and even in the field of the structural challenges of differences in opportunities between students of all levels of education.

Thanks to the insistent and well-grounded education of our researchers, as well as increasing incentives for graduate programs, we have acquired knowledge of the challenges, limits, and or gains of decisions of educational and cultural nature, besides more room for discussion and consistency to go toward change.

Perhaps it is ironic that we are writing this editorial when the Brazilian society is witnessing a shift in its political life. All signs that we are experiencing a setback, as we witness an

1- Excerpt from BOURDIEU, Pierre. *Pascalian Meditations*. Stanford University Press, 2000.

2- Available at: <<http://www1.folha.uol.com.br/ciencia/2016/04/1765028-alcmin-critica-fapesp-por-pesquisas-sem-utilidade-pratica.shtml>>

impeachment which uses conservative discursive weapons. In line with governor Alckmin, the political forces that benefit from the dismissal of Dilma Rousseff's government rehearse measures to promulgate a state seen from above. From their point of view, the hierarchical social structure, different educational opportunities, performance inequalities, or even religious, sexist and homophobic stigmas, seem not to exist in the naive scenario they draw to themselves, which is propagated by the mainstream media. The statements of São Paulo state education secretary are in line with this setback when he says that health and education are dimensions that the state should put in the hands of private initiative.

A collective belief, consensus on evidence, which researchers have thoroughly warned against, does not seem to be part of the repertoire of those who dispense with the critical discussion of our destinies in the field of education and other social areas.

In this sense, the articles presented in this editorial deal with a complex educational reality, pregnant with possibilities of success or setback. Those studies show the diversity of problems of school nature, which the current authorities of our state and nation insist on disregarding or ignoring.

To give a first impression, Luís Armando Gandin and Iana Gomes de Lima – in the article “Michael Apple's contributions to research on educational policy” – recall that educational policies are located in the field of social, economic, political and cultural disputes for a certain worldview. And, in the case of the reflection brought by the two authors, there is a view that can counter the logic of reproduction and hegemony that underlies the mere claim of ignorance.

The following two texts deal with the controversy of religious education in schools. Both elucidate the political, cultural and institutional imbroglio the religious dimension reveals in a country in which a perennial religiosity has existed since the Revolution of 1930 until the most recent governments. Researchers José Damiro de Moraes, in the article “Cecília Meireles and religious education in the 1930s: confrontation in favor of the New School”, and Luis Antônio Cunha, who discusses “FHC's *transverse veto* to LDB: religious education in public schools”, explore the power of the Catholic Church in the destinies of education in Brazil, stating that the efforts for a secular and republican school are still threatened by conservative forces. An analysis of discourses and representations in both texts reveals that the discussions about the dominant position of the Catholic Church in Brazil have changed very little, and are based on their forces in civil society or parliamentary lobbies. Only studies conducted with time and determination are able to shed light on a history that has been built in the shadow of a tradition.

In the Brazilian case, this history underlies the defense of an alleged *school without* party and or without ideology, in which the understanding of sexuality as a social and historical phenomenon, as well as tackling gender inequalities, are systematically postponed as if they were not part of the human condition and formation. This has been the case of the debate on the vote of the National Education Plan and State and Municipal Education Plans, which have suffered a distorted and politically disastrous

treatment of gender and sexual diversity. Based on the discourse of conservative religious sectors, some have defended deleting the words *gender*, *diversity* and *sexual orientation* in education plans. To justify this exclusion, they have used the pseudo-concept *gender ideology* – which supposedly teaches children not to have identity belonging – and have created panic in relation to this theme.

In our view, such panic is unwarranted because gender is not an ideology. Rather, it is a concept that ensures the realization of humanization in its most distinctive dimensions and seeks to broaden the debate on the quality of education: democratic and welcoming all, regardless of their racial, ethnic, religious, or class and gender belonging.

Betting that the production of scientific knowledge can contribute to humanization, the texts that address the theme of *inclusion*, albeit very different from each other, present forms of addressing social inequity issues in different ways. We highlight a significant number of articles which do it from the perspective of social relations of gender.

In “Technologies of gender, device of infantilization, advance of literacy: conflict in the production of gendered bodies”, Maria Carolina da Silva Caldeira and Marlucy Alves Paraíso show the implications of gender in the literacy process from an early age. From an investigation into a class of the first year of primary education of a public school of Belo Horizonte city, the authors examine how the production of gendered bodies occurs in a curriculum which anticipates literacy, separates boys and girls, urges teachers, children, and families to assume binary gender functions.

Lucas Alves Lima Barbosa, in the article “Masculinities, femininities and mathematics education: gender analysis from the discursive view of mathematics teachers”, also challenges the supposed binary evidence that opposes boys and girls in the construction of knowledge. Now focusing on mathematics teaching, the author analyzes how teachers of that discipline maintain certain binarisms in gender identities, thus reaffirming and even legitimizing inequalities already materialized in the social sphere.

We can therefore discern how difficult it is to deconstruct the mechanisms that produce inequalities of gender and of sexual diversity in the school curriculum. But there have been many advances in this endeavor. In “Undoing the heteronormative tangles of school: contributions of cultural studies and LGBTTT movements”, Raquel Pinho and Rachel Pulcino state that, both from the point of view of theory and of the performance of LGBTTT movements, we have built possibilities for questioning, reinterpreting and resisting to heteronormative school practices. The authors envision thus the probability of constructing a school space where alleged truths can be challenged, and where we can think and put ourselves in someone else’s shoes.

In this path, the teaching practice can be re-signified by militancy. Rafael Blanco evidences the strong link between professionalization and activism when he examines the path of three female scholars in the field of gender and sexuality studies in universities in Argentina. His article, titled “Academic trajectories in gender and sexuality studies:

tensions between professionalization, activism, and biographic experiences”, concludes that the inclusion in these studies provides a rereading of biographies, as the author says, “and politicizes their personal narratives through a specific (type) of knowledge”. This process evidences the importance of the production of new knowledge, here specifically focused on gender studies, which allow us to understand and tackle the mechanisms through which gender asymmetries have been perpetuated since the beginning of literacy to university education.

In the context of university education, Ana Louise de Carvalho Fiúza, Neide Maria de Almeida Pinto, and Elenice Rosa Costa give prominence to gender inequalities between professors of Centro de Ciências Agrárias (CCA), Universidade Federal de Viçosa (UFV), in the article “Gender inequality in public university: the practice of professors of agricultural science”. In examining the spaces occupied by men and women in undergraduate and graduate programs, the authors evidence mechanisms through which gender inequality is perpetuated.

The article by Débora Cristina Piotto and Maria Alice Nogueira, called “Including who? An examination of socioeconomic indicators of the Social Inclusion Program of the University of São Paulo (USP)”, which provides relevant information on INCLUSP, an affirmative program of Universidade de São Paulo, also questions the perpetuation of inequality in public university from a perspective other than that of gender inequality. A result of extensive research and analysis of data on a significant number of students from both campuses of USP – Ribeirão Preto and São Paulo –, the study has certainly required expertise, long-term questions and reflections, as well as scientific and political commitment.

The initiatives to understand inclusive education in the reality of the rural area by means of a course for graduates from Universidade de Brasília also reveals the efforts of a group of researchers: Juliana Crespo Lopes, Lucia Helena Cavasin Zabotto Pulino, Mariana Barbato, and Regina Lucia Sucupira Pedrosa. The research in question, presented in the article “Collective construction of rural inclusive education: reflections on an experience in teacher education”, deals with the possibilities of building education for the rural population, according to their demands and needs, from a course of teacher education. Efforts toward bringing reflective material on the differential reality of the men and women who live in that space, which have rarely been made, shed light on a legitimate concern with problematizing the multiple injustices that both segments of this school population may experience.

In “Early childhood teachers and the inclusion of children with disabilities in regular schools”, Alexandre Freitas Carvalho, Vitor Antonio Cerignoni Coelho, and Rute Estanislava Tolocka, in the same direction as the article above, are concerned with verifying the perceptions of teachers while dealing with students with some degree of disability, motor, hearing or vision difficulty. The trio of researchers observed teachers’ ignorance, unfamiliarity and lack of pedagogical and didactic experience to deal with such matters. Such situation requires a deeper reflection on the discourse of inclusion and on the practical difficulties of its implementation. Courage to

express such a state could only come from research committed to the production of knowledge in the education field, in its microdimension.

The article “The color of school failure: factors associated with academic failure of high-school students”, by Vanessa Lima Caldeira Franceschini, Paula Miranda-Ribeiro and Marília Miranda Forte Gomes, brings confirmations of the differentials of academic performance, failure and achievement of our young black population. Above all, the text reveals that, coupled with gender, the variable color assumes another aspect: factors related to socialization processes, such as expectations and life projects of both sexes imply nuances and variations in the paths of these students. For example, being a black woman, pregnant with her first child and living only with her mother configures a life situation highly susceptible to failure or school dropout.

This tense relationship between race and gender marks the very configuration of the history of Brazilian education. Reflections such as that of Surya Pombo de Barros, based on Thompson’s perspective of law as a result of disputes and customs, are exposed in the text “Slaves, freedmen, free African descendants, non-free, blacks, *ingênuos*: Education legislation concerning the black population in nineteenth century Brazil”. The author shows the relationship between the legal framework of education and the black population from the imperial laws and regulations on instruction, highlighting interdictions and permissions for the enrollment and or attendance of blacks in the period of the Empire. However, we must not forget that, in this process, advances have been achieved throughout our history.

The translation of Paulo Blikstein’s article, “Travels in Troy with Freire: Technology as an agent of emancipation”, published here, shows that the current production of knowledge can rely on perspectives considered classic in the field of education. By analyzing the intellectual and emotional commitment of students of a public school, the author brings the contribution of Seymour Papert and Paulo Freire, two important scholars of education, to highlight that the introduction of new technologies in the process of teaching and learning can be a powerful emancipatory agent in economically disadvantaged communities. The reflection brought by Manuel Gonsalves Barbosa and Eldon Henrique Mühl, in the article “Education, empowerment and struggles for recognition: citizenry rights” also opens up space to believe in the liberating power of education, which is the accurate locus of production of critical reflexivity about the condition of our time. The *undercitizenship* category, announced by the authors, warns us about the tragedy that lack of knowledge can perpetuate. The *undercitizenship* condition can lead to a time of decline of scientific thought and favor a magical and sometimes naive reason.

Last but not least, this issue brings the interview conducted by Kimi Tomizaki, professor of Faculdade de Educação, Universidade de São Paulo (USP), with professor Jean-Pierre Faguer, from École des Hautes Études en Sciences Sociales, in Paris (EHESS). In this interview, entitled “Sociology of education, reproduction of inequalities and new forms of domination”, the author, who was Pierre Bourdieu’s collaborator at Centre de Sociologie Européenne, deals with his career as a professor and

researcher who closely investigates the processes of domination and reproduction of social inequalities.

Thus, the interview reaffirms the theme highlighted by us in the grouping of the articles herein: expanding our ability to build on the old, to believe in overcoming adversity, to know the reality by means of scientific knowledge, guided by theories and analysis techniques, can help us see another course of reality. The collective work of the scientific community certainly proves to be a weapon for the construction of alternative ways to meet the challenges of the educational reality in Brazil.

And, therefore, we turn to the two famous sociologists cited at the beginning of this editorial. Poor are those who do not have science to help them ponder the reality that surrounds them. Poor are those who dispense with or do not appreciate the growth of intellectual rationalization and the difficult exercise of reflexivity.

We agree with Max Weber that science is able to show men the meaning of what they do and of what they can rationally do. However, science cannot show us what we wish to do or what we should do (VILELA, 2006).

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