

How to think of the other and self without overselling the self: reason as a historical event¹

Cómo pensar al otro y pensarse a uno mismo sin sobrecargar al yo: La razón como acontecimiento histórico

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ABSTRACT

In this article, the author argues that the desires embodied in the reason of schooling and the languages of globalization generate categories and distinctions as producers of utopic visions about the potentialities of people and societies. School curriculum and research embody statements about what is worthy of being achieved at the collective level that simultaneously generate fears of everything that poses a threat to achieve this ideal. A critical science about educational policy must make visible how problems, methods and solutions are formed and how they differentiate, divide and exclude certain individuals and groups in their efforts towards inclusion. The change does not consist in predicting the future, but in denaturing what is taken as natural to make possible alternatives that are outside of what is given as the order of things.

Keywords: systems of reason, cosmopolitanism, governmentality, politics of representation, critical science of education.

Referencia

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¹ This article constitutes a response to the interview conducted by Raimundo Cuesta and Marta Estellés about the globalization of educational systems. See Cuesta and Estellés (2020) published in this same issue.

RESUMEN

En este artículo, el autor sostiene que los deseos encarnados en la razón de la escolarización y los lenguajes de la globalización generan categorías y distinciones en tanto que productores de visiones utópicas sobre las potencialidades de las personas y las sociedades. El currículo escolar y la investigación educativa incorporan creencias sobre lo que es digno de ser perseguido a nivel colectivo que simultáneamente generan temores a todo aquello que suponga una amenaza para alcanzar dicho ideal. Una ciencia crítica sobre la política de escolarización debe hacer visible cómo se forman los problemas, los métodos y las soluciones y cómo éstos diferencian, dividen y excluyen a determinadas personas y grupos en sus esfuerzos en pos de la inclusión. El cambio, según el autor, no consiste en pronosticar el futuro, sino en desnaturalizar lo que se toma como natural para hacer posibles alternativas que están fuera de lo que se da como el orden de las cosas.

Palabras clave: sistemas de razón, cosmopolitismo, gubernamentalidad, política de la representación, ciencia crítica de la educación.

The charge of this conversation is immensely important and may contain its own impossibility. The notion of 'globalization' that initiates the discussion directs attention to unnoticed broader interconnections. Yet the significations of globalization pose cautions and dangers with the possibilities. Its dangers are in the historical impositions that the word can carry to organize, classify and differentiate action. The languages of globalization embody a comparative reason. At one level, globalization marks an epoch that juxtaposes the present to the past to presuppose differences from what proceeded. Concomitantly, standards differentiate globalization now. Norms embodied in its classifications establish a continuum of value among nations and people that are encapsulated in topoi as The Knowledge Society and Knowledge Economy. The divisions ordered through discourses of globalization appear as stabilized edifices, expressed sometimes as the power relations of the flows and movements from "the globalized" north that meets the "non-global" south. The geographical distinctions become categories of the origins of the events that cause, alleviate, and trouble the social relations and personal experiences. The narratives of origins evoke and elide particular historical logics of change to perform as transhistorical concepts: the world-wide spread of capitalism and institutionalization of schools; or as the binaries of the endogenous and exogenous, the nation and the local.

The danger of the neologisms of globalization is that it can inadvertently superimpose the same representations, objectifications and comparative reason of the phenomena as the object of research and change rather than undoing them. Capitalism is one such an example and it is given as particular universalized representations and identities that differentiate structures and social wrong. Yet that universalizing of the representations and identities does not account for differences in the practices of politics and schools in East Asia, the former Soviet Union; differences between East and Western Europe liberalisms that formed in the US in the 19th century and continue today. Capitalism is an unstable entity and its objectifications of people are effects of power that "move" at the intersections of multiple historical lines in different time/spaces.

This discussion of globalization and its problematization brings into view the second part of the charge of this conversation about critical research and change:

In recent decades, a neo-language of common use for both left and right governments prevails in Spain (competences, performance levels, learning standards ...), which

reflects the unwritten agreement on education and its goals. Is the challenge of these languages a precondition of critical thinking in education? What heuristic tools can be used to unmask that universal consensus about schooling?

This discussion asks how to engage in a critical conversation without reinserting the logics or rationalities that reside in the contemporary conditions. A critical science of education, I argue below, concerns with change. That notion of change is in a different register than planning and administrating the future. That planning to change the present, I will argue paradoxically produce stability and exclusions as efforts to correct social wrongs. The critical study that is discussed is a cutting into the present as a method to unthink the very structuring of thought and action that organizes the present. Such a critical engagement with the present is to question the different intersecting historical lines that are presupposed and give intelligibility to what matters the problem of change. It is the unthinking the *conditions that make education an object of intervention in people's lives, to give historical locations to universal consensus, and to explore the political of the reasoning of schooling as critical science of education.*

I will use the phrase of a critical *science* of education. I use science in a sense that brings together intellectual, historical and political dimensions. Science is thought about as giving a disciplined, systematic attention to the world. This general sense of science challenges the colonialization of that word whose legacies are in positivism, empiricisms, and the Cartesian logics that surrounds the analytical philosophy in science studies. These positivism and empiricist engage a science through the inscriptions of the representations and their objectifications of the world as the origin of what matters. It is the very representations and objectifications of the world and people that a critical science is to explore as the effects of power and the political.

This critical science to “unthink” in order to think focuses on studies of *the systems of reason*, or the rules and standards that order and classify what is known and done in schooling. I argue that the principles generated about who teachers and children are and should be are the political of schooling; that is, to think of children as learning about global *competences, performance levels, learning standards* entail a lot of backstage work, or historically prior principles in which the ideas of “learning” are made sensible to think and order experience. These “background” principles are the political; political as they order and classify reflection and action that create the spaces of action in school programs and teachers’ activities. The political, then, is

how the “reason” of schooling is material through to intern and enclose what is (im)possible as reflection and action. The spaces of action of schooling and its research, I will argue, are about the making of different kinds of people that, paradoxically, excludes and abjects in the efforts to include.

The discussion is divided into three parts. The first part discusses the idea of critical studies and the political of schooling. The second part considers the reason of schooling as the object of study and the problem of a critical science. The third part explores how thinking to unthink can be made into an object of a critical study of schooling.

1. A funny thing happened on my way to doing research: how research for educational improvement “turned” into critical studies of the political
2. Critical and change as “thinking/unthinking”
3. The reason of schooling as the object of a critical science of education

My focus is on educational research as a social and cultural actor; actor in the sense that the distinctions and categories of the sciences of pedagogy generate principles to order conduct. This acting is political as the historical lines in which pedagogical research is enacted performs in the ordering and classifying of conduct. This focus on the research schooling goes against the grain. It counters the idea that teachers do not use research in their teaching as overlooking the actual currency of the sciences of education in schooling. It is not whether teachers use particular research to plan but the principles generated and folded together about what counts as practice and experience in schooling.

A FUNNY THING HAPPENED ON MY WAY TO DOING RESEARCH: “TURNING” EDUCATIONAL IMPROVEMENT INTO CRITICAL STUDIES OF THE POLITICAL

When I started the doctoral program at New York University some decades ago, globalization meant looking at Ellis Island in New York Bay where my parents entered a century ago from Europe. My initial PhD research was in “The New Curriculum Reforms”, a reform movement to rethink and experiment ate with the curriculum models and teaching related to sciences, mathematics, literacy and social studies education. The Process of Education (1960) by Jerome Bruner, a cognitive psychologist, was a pivotal work in these reforms. The central idea was that the

curriculum should teach the most applicable knowledge for understanding and interpreting the world and engage children in thinking through the basic disciplinary structures of knowledge and methods. Initially, I was going to take Brunner's psychological orientation in proposing my PhD research. It was to develop an inquiry or discovery-oriented curriculum for elementary or primary school children. In my advisor's kind, thoughtful and gentle way, he said, "Of course, what you say is interesting." But he added, "It is what everyone is doing. Why not try to think differently about the problems?" Translation: "Hey, stupid, what you suggested is boring and not only that, you just taken what everyone assumes is natural and unquestionable as the question of change. Maybe think differently? If you take of the existing rules of reasoning about schooling and change, you are left with those rules! This may not be very productive. In fact, it may conserve and stabilize the very things that require undoing".

I start with this reflection that is more than a reflection of "me". It provides an initial entrance to explore a critical science and the political of knowledge in schooling. I distinguish *political* from its conventional use that entails a notion of power as "owned" by some groups to rule and to differentiate from "the others" who are ruled, often the way capitalism is universalized and made into the binary distinction between those who dominate and those dominated. Politics, in this notion of critical, usually gives reference to who makes decisions, benefits and handicapped by social and institutional arrangements. Power as "owned" by some groups to rule and to differentiate from "the others" who are ruled, often the way capitalism is talked about as the binary distinction between those who dominate and those dominated. The starting point or origin of change are with the social positions given to representations given as the categories structuring the inequalities. The politics of reform is to redress inequities, such as representing the interests of all stakeholders, hearing "the voice" of particular marginalized and disadvantaged groups in educational decision making and expressing the culture of populations previously marginalized.

The sensibility in defining power is captured in the reference to equality as reforms that represent all stakeholders and reference to hear "the voice" of particular marginalized and disadvantaged groups in educational decision making. In the 1960s, this policing was evident in New York City's efforts to respond to the failure of schools for educating poor, racial and particular ethnic groups. The governmental

response and part of the civil rights movement created a more decentralized school system in which local community groups participated. The issues of participation in the decentralized school districts were how to designate “groups” to represent “the community”; who were formally chartered as “groups” entailing visible criteria of organizations recognizable as “responsible”; and who to exclude outside of the boundaries of “the reasonable”. The designation of community groups and stakeholders were bound to what was acceptable in the partition of what was the sensible in identifying and recognizing power relations and social interests (Popkewitz,1976).

The politics of representation and notions of voice and representation are important to social movements, yet as important as this politics is, what follows suggests that while necessary, it is not sufficient as a view of how power operates. Here I want to introduce a complementary notion of power, one that operates through production of principles that shapes and fashions what is said, done and acted on. Rancière (2006b) calls this notion of the political as *the partition of sensible and, if I can add, sensibilities (the relation of cognition and affect) generated in research*. Similarly, Foucault (1979) uses the word “governmentality and Latour as “governing-at-a-distance”. In each instance, the issue of power is viewed as operating less through brute force but productive in the ordering of conduct. This notion of productive power is how objectifications of the world become modes of “seeing”, classifying and acted on the early feminist movements framed this notion of power was captured in Denise Riley’s “Am I that Name? Feminism and the Category of ‘Women’ in History” (1986). The book examines historically the shifting historical constructions of the category of “women” as particular kind of subjectivity as an effect of power that creates spaces of action for “seeing” the nature of the body. With the same focus, Ian Hacking suggested that Marx’s distinction of “the worker” was as idea given shape and sensibilities through British factory inspectors’ reports during the industrial revolution.

This idea of how knowledge “acts” to shape and fashion what is (im)possible is important to critical studies. It directs attention to the political. *The political* gives reference to the production of principles that shapes and fashions what is said, done and acted on. Rancière (2006b) calls this notion of the political *the partition of sensible and, I add, sensibilities (the relation of cognition and affect) generated in research*. The things happening in the world (the ontic) are brought into description

and those descriptions embody principles that “act” on what is said, thought and done to rectify social wrongs. The representations, identities, and models of learning in classrooms are examples of this operation of productive power. To talk about the child as “learning” brings into existence particular ways of thinking about “human nature” and practices of intervening to make possible that desired nature; the good adult/citizen/parent/worker. The activating and actualizing the good nature underlie such concepts of teaching and learning as motivation, self-esteem, self-realizations, empowerment. To place this into current social theory, ontology and epistemology are part of the same phenomena and not separate.

This is where a critical science of education comes into being. It challenges the partitions of the sensible. If I go back to my PhD studies (as act of creating memory that forges into the present as the past), I started reading in a field that I knew nothing about, “the sociology of knowledge”. It asks generally how the knowledge that we have of science and everyday life is not merely about “our” experiences but of the historical conditions that makes experience possible to recognize. Joan Scott (1991), a feminist historian, made this point beautifully clear when she examined the reflections of a gay writer who entered a San Francisco bath house in the 1960s. She argued that the personal expression of belonging and emotion entering the bath house were historical and political as well as personnel, exploring how experience is itself related to collective memory available to make it “shared”.

In Scott’s example of the gay experience in the San Francisco bathhouse, it is possible to think further about the political as what is given intelligibility about the self and the society embody two further characteristics that form as objects of a critical study. One is how desires are built into the reason of schooling. If I focus on the Organizations of Economic Cooperation and Development (OECD) assessment in the Programme for International Student Assessment (PISA), the statistics, ranking and comparative “act” as desires. The ranking of nations functions as a GPS. Wherever you are in the world, you can locate your self –collectively as a nation and individually in relation to other– some on the top, others in the middle, and some at the bottom. But the graphs and charts that embody desires that require precautionary or preemptive actions against the imagined dangers (Popkewitz, in press). These dangers embody affective dimensions generated through the measures that engender fears of either losing your top position or, not getting to the top.

The desires embodied in the reason of schooling, however, also entails a comparativeness that differentiates and divides what is the potentialities of people that are hoped for (to be a Knowledge Society) and fears of the dangers and dangerous population to that hope. The scaling and hierarchies of “successful” and less successful nations appear in PISA, for example, as merely abstractions that performs like a GPS about modernization and progress. But the inscriptions of the numbers to rank nations and school performance order people in continuum of values that differentiates normalcy and pathology (Popkewitz, 2018). The numbers and comparative qualities expressed about nation entail complex edifices formed through micro-categories about people dispositions (children’s motivation, parental interactions, teacher “mind-sets) that are philosophical ideals.

These ideals are formed through the epistemic qualities that classify and order who the child is and should be. The standards of high performance are standards about people that function as philosophical ideals about what a society and person should be, with the GPS comparing people’s characteristics and capabilities with what is desired (the child who is motivated and has “grit”) and what interferes and hinders the actualizing of the potential of the child. The organizing of that knowledge about the child in this manner focuses on the qualities and characteristics of the child, family and community inscribed as dysfunction and pathological to achieving the ideal; qualities of the child who is left behind, disadvantaged and at-risk for not being of the average and not that desired child-to-be.

A critical science concerned with the political of schooling makes visible how problems, methods and solutions for rectification of social and personal issues are formed to differentiate, divide and exclude in efforts to include; that is, how the rules and standards of the reason of schooling order and classify of experience “acts” on and differentiates kinds of people. Today this kind of interest morphs into what is called “post-modernism”, post-humanism, post-colonialism, and post-foundational styles of reasoning about research and social life. Many “posts” signify something that can stand as a critical stance to save not romanticize and “post” is always in relation to what is not “post”.

CRITICAL AND CHANGE AS “THINKING/UNTHINKING”

This concern with “reason” as material and historical object of study relates to “the sociology of knowledge” and more recently to “posts”, or to paraphrase the

proposal, for this conversation to “*reflect of the intellectual ‘tools’ to challenge the unwritten agreement of the languages as a condition of critical thinking in education?*”

The notion of critical science can be related to Bruno Latour’s (2004) reversing what is assumed in research as the matters of concern to research as *the concerns of what matters*. This notion directs attention to “what is accepted as authority through a *critique* of the conditions of what is known, what must be done, what may be hoped” (Foucault, 1984, p. 38; my italics). To paraphrase (and maybe misquote) Karl Marx’s (1976) “Thesis Eleven” in *Theses on Feuerbach* (1845), this work engages in the human sciences as not only for interpreting the world, but as finding knowledge that has the possibility to change it (see, e.g., Llewelyn, 2004).

The mention of critique, I recognize, is often not seen this way. In the American setting, “critical” is said to be “negative” when the real challenge of research is producing social improvements and pathways for progress. The optimistic side takes precedence in arguing about the search for practical knowledge and what science should do. And without explicitly naming who the agent is, science and the world is devoid of its humanism and deterministic.

I argue elsewhere that the notions of humanism and determinism are the effects of power that conserve the order of things and work against social commitments as the object of change (Popkewitz, in press). Critical science entails a notion of agency and change that travels in a different register found in conventional ideas of politics. These conventional ideas place agency within the realm of a humanism that inscribes human intentionality and purpose as the only causal agent.

The challenge of agency, in contrast to the humanism, is make visible the habitual ways of working and thinking about society and people as the political. Agency, then, is the “testing of the limits of the present, freeing ourselves from the particular dogma of the present through a resistance to what seems inevitable and necessary by “modifying the rules of the game, up to a certain point” (Foucault, 1984, p. 48). The sense of hesitation embedded in “up to a certain point” is related to the conditionality of the present that makes it impossible to find complete and definitive knowledge of what constitutes the past and present.

Critique was important to Enlightenment traditions concerned with freedom and liberty but somehow got lost on the way to the present. What passes as freedom is the search for the expertise that provides practical and useful knowledge that can be directly applied to change conditions and people. The German philosopher/social

historian Blumenberg (1966/1983) argues that the Enlightenment cosmopolitan concerned with reason, rationality, and progress has two complementary sides.¹ One evolved into social planning and interventions, the strand of research with historical principles creates a hierarchy between those who know and those who are to know. The curriculum uses of children's modeling in mathematics education is replete with this notion of knowledge and agency: children apply the models of science to explain the world and interpret their own experiences. The other side of "reason" important to the Enlightenment ideas of progress is a different notion of science, what Blumenberg called "renunciation," and Lynn Fendler calls "whistle blowing".

The notion of renunciation and whistle blowing situates change as the possibility of refusing who people are and to be. Change is not asking about the governing "by institutions, prescribed by ideology, guided by pragmatic circumstances," but the making visible the objectification of social life as having historically "their own specific regularities, logic, strategy, self-evidence and 'reason'" (Foucault, 1991, p. 5). This historicizing continually asks how we arrived at the present and its limits and is a method of thinking about who we are and should be and of change. To return to Foucault,

Criticism is a matter of flushing out that thought and trying to change it: to show that things are not as self-evident as one believed, to see that what is accepted as self-evident will no longer be accepted as such. Practicing criticism is a matter of making facile gestures difficult. (Foucault, 1988, pp. 155-156)

Criticism, then, is an optimism about the possibilities of change. That optimism in change is making unstable what is taken as natural, "bound up more with circumstances than necessities, more arbitrary than self-evident, more a matter of complex, but temporary, historical circumstances than with inevitable anthropological constants". (Foucault, 1988, p. 156). Critical research is "unthinking" to think and act with degrees of freedom that and requires, I believe, a particular historical method in the study of the present.

THE REASON OF SCHOOLING AS THE OBJECT OF A CRITICAL SCIENCE OF EDUCATION

¹ The different epistemes in which the word "critical" is evoked in education is explored in an edited book that I did with Lynn Fendler (Popkewitz & Fendler, 1999).

At the turn of the Twentieth century, an important intellectual philosopher John Dewey wrote *How We Think* traveled across oceans. To place this icon of American progressive education anthropological psychology into a different register questions how “we” think and experience as constituted historically, socially and culturally. From Dewey we ask how his writing is given intelligibility in different times and places; for people to “reason” –think and act– in a manner that the pragmatic psychology “makes sense” about what “we” do about social life, political commitments and, closer to home, about schools do, who children are, and the desire of change.

Let me pursue this thinking about the reason of schooling and the political by making instructional improvement, a commonplace of school reform, as an empirical object for a critical study. The idea that research improves instruction travels with the idea that change is about social improvement. Contemporary literature on teacher professionalism asserts the object of professions is social improvement; and if researchers fix what teachers do, guide families on childrearing and support healthy community life, then they enable a better society with greater personal happiness and less social wrongs.

But what if we treat ideas of “improvement” as the empirical event and not assume our work as the object of schooling. If we were to treat this idea as a means to understand the political in schooling as “improvement” presupposes a natural human desire and restrains the possibility of acting. Improvement has a particular historically trajectories that organizes life and changes people so people and children can do and learn better and thus be someone different than if we did not engage in their “improvement”. This kind of critically thinking does not use the existing school categories but asks how those categories about the psychology and sociology of the child, for example, connect with ideas of “improvement”. These connections and assemblies generate principles about who we are, should be, and, who does not “fit” properly into the principles of the desire child.

Making “improvement” into the empirical study, then, means “seeing” improvement as an historical event. Social improvement is an invention in the 19th century when cultural changes enabled people to think of life as a planned trajectory articulated in the idea having careers. The idea of a career appeared concomitantly with the emergence of social theories that standardized people. The invention of “social improvement” ordered social affairs in a timeframe that could be managed to

effect change (Popkewitz, in press). One assumption was to place people into “the arrow of time”, an ordering of people’s life and institutions that could be regulated through linear ideas of developing and growing. The age graded classroom of the late 19th century captured this notion of the arrow of time.

This assumption of regular time connected the idea that people can be managed through controlling social time with liberal theories about how individuality and society were governed. Today this idea of “improvement” seems to exist in research and policy as the study of processes and patterns of communication. The idea is all that is needed is the right mixture of policy and research to make this change happen.

Improvement, then, is not merely about getting “better” but entails particular rules and standards of “reasoning” about how to manage and change people. This managing, governing, and changing is the political of schooling. If I stay with this idea of improvement to explore how a critical science engages the political, three principles connect historically with this notion of time to form the political of schooling and to enclose what is possible.

Firstly, schooling and its research to improve what teachers and children do are historically about *making kinds of people*. Today’s language is about helping children’s learning, with the teacher as facilitating, caring, and so on, historically elides more than it illuminates. When notions of growth and development, even learning, are examined, they are about changing people through schooling. Children are sent to schools so they will become something that they would not be if they were not “schooled”.

The desire for education and research to change people is not so bewildering historically. The formation of the republics in Europe and North America gave recognition to education as important for government. The desired person was called the citizen. The citizen was a particular mode of living that entailed the necessary participation for a new form of republican government to function (Cruikshank, 1999; Wood, 1991). In the modern school, the sites of intervention and planning were the interior of the child (see e.g., O, 2003; Horlacher, 2015). French and Portuguese pedagogies at the turn of the twentieth century, for example, observed and “registered” the inner physical and moral life in order to map the spirituality of the educated subject (‘the human soul’) who contributed to social life (O, Martins, & Paz, 2013).

Psychology was the sacred knowledge for changing people. At the turn of the 20th century, the American Child Studies of G. Stanley Hall spoke of science as providing the cultural principles necessary to change the new populations of immigrants and ethnic groups attending school in relation to a general notion of the cultural principles associated with collective belonging. Hall argued that the psychology of the adolescence worked on “the soul” of the child. Psychology was concerned with the inner moral qualities and characteristics of people that are today expressed as changing people’s “dispositions” and “mindsets”. Science provided these cultural principles through the “more laborious method of observation, description, and induction” that would enable “conquering nature” and developing “reason, true morality, religion, sympathy, love, and esthetic enjoyment” of the child” (Hall, 1904/1928, p. vii).

Social improvement gives expression to a number of historical lines to generate principles about making kinds of people. That making is not merely about behavior. It is about the interior of the child, or “the soul”.

Second, the sciences of childhood and pedagogy were anticipatory. Anticipatory, in the sense that to talk about the child’s development and growth is a projection about the potentialities of society that the child embodies through pedagogy. This desire is not necessarily about what people believe or want but is formed through the systems of reason that organize what is said, thought and acted. The distinctions, categories and differentiations that order schooling becomes the de facto functional definition of change in schooling and its sciences. Words about children learning and development are not merely about a universal good that research enables. The categories and distinctions of learning are about the future; generating utopic visions about the potentialities of people if research and teaching do their jobs correctly. Learning is about desires, directed to what is to be and what teachers and children feel as satisfaction, self-esteem, and motivation –all words that embody affect. The contemporary ideal of the lifelong learner that the school produces is a desire about the potentialities of people and kinds of societies that research and programs actualizes.

Third, desires for social improvements have double gestures: hopes about what the child becomes that simultaneously engenders fears of dangerous populations who threaten what is epistemically anticipated. When the objects of classroom planning and research are stripped of their moral entitlements, change embodies the

mutual and double potentialities of the child and teacher. The creative child, for example, is a particular way of thinking, differentiating, and ordering who the child is, should be that simultaneously compares and excludes the child who also is not “creative”. The work of Catarina Martins (2017, 2018), for example, explores how the idea of creativity and artists appears in the 19th century as a concept of science. The concepts inscribe differences, as in the idea of creativity are distinctions and differentiates about who is not that kind of child.

This making of kinds of people and difference as double gestures is historically evident in the formation of school subjects, like art, mathematics, music, or science. The curriculum of the school is like an alchemy, or as translations and transformations, that is the movement of disciplinary spaces of knowledge production (e.g., physics, art, history) into the spaces of schooling. The alchemy or translations in schooling ironically have nothing to do with learning school subjects. Of course, the symbols and artifacts of disciplines, such as the microscopes of science or music instruments and notation systems, are brought into school, but the concepts and classifications of disciplinary are re-worked as practices that normalize and pathologize the characteristics and capacities of the kinds of people. Science, for example, helps children learn how to live, and measures of scientific ability relate more to social and cultural distinctions than to the practices of science itself.

My focus on the double gestures of the reason of schooling recognizes how belonging, exclusion, and abjection are the single imprinting of two seemingly opposite feelings and thoughts, or double gestures in the same utterance. School curriculum and research embody statements about the hope of making children who will participate in society that simultaneously instantiates fears. Problem-solving, motivation, learning, self-realization, and development are distinctions about the qualities of people: distinctions engender the people who do not have these qualities—the child who is not self-realized, developed, learning. The fears are of dangerous populations abjected from the spaces of belonging: the “backward” child at the turn of the 20th century who later becomes the unmotivated, lazy child who lacks self-esteem and courage, identified in the US as “grit”. The production of comparative reason and double gestures to generate differences that is historically entangled with issues of racism, eugenics and Jill Casid (2015) argues, “the colonial machinery of dominance” (p. 122).

It can be asked at this point, “Is not that what schools should do? Are not the modern schools to change children so they become productive, thoughtful citizens of society?” The answer is: “Yes, of course.” But while this is not necessarily bad, it is always dangerous and the particular principles ordering and classifying people need to be continually scrutinized.

A CRITICAL SCIENCE AND THE PARADOX OF THE COMPARATIVE REASON OF CHANGE

The cosmopolitanism of the European and American Enlightenments that expressed human reason and science to bring about human perfection embodied a particular mode of life associated with moral cultivation and the continuum that differentiated the advanced from other less advanced civilizations. The civilized and civilizations in the English, French and American Enlightenments placed and differentiated people as optimism of progress traveled simultaneously with fears of degeneration and decay. To “civilize” endowed what was common to all human beings was, in fact, about the placing humanity in a continuum of value and hierarchy that ordered and divided people, races, and their civilizations.

There is little talk today in education about the civilized and non-civilized; “we” are more civilized than that. Distinctions between the civilized and the uncivilized are inscribed in developmental norms and notions of mastery learning and concepts of misconceptions, and those who succeed because they are motivated from those who “fail” because of their lack of “motivation”, self-esteem, efficacy, or because of their “family fragility”.

The political of schooling is embedded in the very reason that orders what is said and done. Science as critique accepts the Enlightenment’s cosmopolitanism as an attitude about reason and science as holding the possibility of the freedom does things that previously were not possible. Research makes fragile what seems as natural and inevitable in our way of thinking about freedom, and thus opens up alternatives outside of those enclosed within contemporaneous frameworks. Change is not to forecast the future but to denaturalize what is taken as natural and thus to open spaces to make alternatives possible that are outside of what is given as the order of things.

REFERENCES

- Blumenberg, H. (1966/1983). *The legitimacy of the modern age* (R. Wallace, Trans.). Cambridge: MIT.
- Bruner, J. (1960). *The process of education*. Cambridge, MA: Harvard University Press.
- Casid, J. (2015). *Scenes of projection. Recasting the enlightenment subject*. Minneapolis: University of Minnesota Press.
- Cruikshank, B. (1999). *The will to empower: Democratic citizens and the other subjects*. Ithaca, NY: Cornell University.
- Deleuze, G., & Parnet, C. (1977/1987). *Dialogues* (H. Tomlinson & B. Habberjam, Trans.). New York: Columbia University Press.
- Foucault, M. (1991). Governmentality. In G. Burchell, C. Gordon, & P. Miller (Eds.), *The Foucault Effect: Studies in governmentality: With two lectures by and an interview with Michel Foucault* (pp. 87-104). Chicago: University of Chicago Press.
- Foucault, M. (1991). A question of method. In G. Burchell, C. Gordon & P. Miller (Eds.). *The Foucault effect: Studies in governmentality* (pp. 73-86). Chicago: University of Chicago Press.
- Foucault, M. (1988). *The care of the self: The history of sexuality* (Vol. 3). New York: Vintage House.
- Foucault, M. (1984). What is an author? In P. Rabinow (Ed.), *The Foucault Reader* (pp. 101-120). New York: Pantheon Books.
- Foucault, M. (1984). What is the enlightenment? Was ist Aufklärung? In P. Rabinow (Ed.), *The Foucault Reader* (pp. 32-51). New York: Pantheon Books.
- Foucault, M. (1979). Governmentality. *Ideology and Consciousness*, 6, 5-22.
- Hall, G. S. (1904/1928). *Adolescence: Its psychology and its relation to physiology, anthropology, sociology, sex, crime, religion, and education* (Vol. 1). New York: Appleton and Co.
- Latour, B. (2004). *Politics of nature. How to bring the sciences into democracy* (C. Porter, Trans.). Cambridge: Harvard University Press.
- Llewelyn, J. (2004). *Seeing through God: A geophenomenology*. Bloomington: Indiana University Press.

- Martins, C. S. (2013). Genius as a historical event: Its making as a statistical object and instrument for governing schooling. In T. S. Popkewitz (Ed.), *The "reason" of schooling: Historicizing curriculum studies, pedagogy, and teacher education* (pp. 99-114). New York: Routledge.
- Martins, C. S. (2015). Disrupting the consensus: Creativity in European educational discourses as a technology of government In T. S. Popkewitz (Ed.), *The "reason" of schooling: Historicizing curriculum studies, pedagogy, and teacher education* (pp. 99-114). New York: Routledge.
- Martins, C. S. (2017). From scribbles to details: The invention of stages of development in drawing and the government of the child. In T. S. Popkewitz, J. Diaz, & C. Kirchgasler (Eds.), *A political sociology of educational knowledge: Studies of exclusions and difference* (pp. 105-118). New York: Routledge.
- Martins, C. S. (2018). The alchemies of the arts in education: Problematizing some of the ingredients of the recipe. In B. Jörissen, L. Unterberg, L. Klepacki, J. Engel, V. Flasche, & T. Klepacki (Eds.), *Spectra of transformation* (pp. 51-67). Munster and New York: Waxmann.
- Marx, K. (1976). Theses on Feuerbach (written in the spring of 1845). In F. Engels (Ed.), *Ludwig Feuerbach and the end of classical German philosophy* (pp. 61-65). Peking: Foreign Languages Press.
- Ó, J. R. d. (2003). The disciplinary terrains of soul and self-government in the first map of the educational sciences. In P. Smeyers & M. Depaepe (Eds.), *Beyond empiricism: On criteria for educational research (Studia Paedagogica 34)* (pp. 105-116). Belgium: Leuven University Press.
- Ó, J. R. d., Martins, C. S., & Paz, A. L. (2013). Genealogy of history: From pupil to artist as the dynamics of genius, status, and inventiveness in art education in Portugal. In T. S. Popkewitz (Ed.), *Rethinking the history of education: Transnational perspectives on its questions, methods, and knowledge* (pp. 157-178). New York: Palgrave.
- Popkewitz, T. S., & Fendler, L. (Eds.). (1999). *Critical theories in education: Changing terrains of knowledge and politics*. New York: Routledge.
- Popkewitz, T.S. (2018). Anticipating the future society: The cultural inscription of numbers and international large-scale assessment. In S. Lindblad, D. Pettersson, & T. Popkewitz (Eds.), *Education by the numbers and the making of*

society: The expertise of international assessments (pp. 222-228). New York: Routledge.

Popkewitz, T.S. (en prensa). *The impracticality of practical research: A history of sciences of change that conserve*. Ann Arbor MI: University of Michigan Press.

Rancière, J. (2006). *The politics of aesthetics* (G. Rockhill, Trans.). New York: Bloomsbury Academic.

Scott, J. (1991). The evidence of experience. *Critical Inquiry*, 17, 773-797.

Wood, G. S. (1991). *The radicalism of the American Revolution*. New York: Vintage Books.