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Collection de la Société Suisse pour la Recherche en Education, publiée sous la direction de Rita Hofstetter, André Petitat et Bernard Schneuwly
Introduction
Progressive Education and Educational Sciences
The tumultuous relations of an indissociable and irreconcilable couple? (late 19th – mid 20th century)
Rita Hofstetter and Bernard Schneuwly

Introduction
Education nouvelle et Sciences de l’éducation
Les relations tumultueuses d’un couple indissociable et inconciliable? (fin du 19e – première moitié du 20e siècle)
Rita Hofstetter et Bernard Schneuwly

Scientific base or ideological support for New Education?
Base scientifique ou appui idéologique pour l’Éducation nouvelle?

«Experimental pedagogy» in German-speaking Switzerland after 1900. Scientific bases for school reform?
Lucien Cribiez

The beginnings of education at American universities
Curricular conflicts over the study of pedagogy as practice or science 1856 to 1940
Lester F. Goodchild
The idea of science as planning was not planned

A historical note about American pedagogical sciences as (re)making society and individuality

There is an almost «naturalness» in today’s conversations about educational research being «useful» in social planning and policy making. It is the surrounding premise of many graduate studies in my native land but also heard increasingly internationally in professional groups and governmental agencies concerned with school reform. The legislative function of science crosses ideological positions, political affiliations, and social positions. The teacher asks without hesitation «What does this research tell us for improving classroom teaching?». The university researcher is heard saying «How can this research be made relevant and speak to teachers and policy maker?». The political activist quotes (and misquotes) Marx to implore that research serve as an agent of change.

The sacredness of research in planning is implanted in distinctions that separate «theory» from «practice» and in talk about finding out «what really is happening» (context) verses what policy makers say (discourse).

What follows is a brief historical excursion that asks how is the idea of research as planning made historically possible to think, speak and act? Research as a practice to intervene in the remaking of society is not a logical outcome of science nor was the idea of planning planned. I focus on the formation of the American social sciences influential in schooling at the turn of the twentieth century. The sciences were formed in national and international conversations about modernity and the construction of the modern «self», with the New Education Fellowship one of its expressions (see Eisenstadt, 2000; Popkewitz, 1987). The pedagogical theories about the family and child, I argue, embody particular
cultural theses about planning modes of living of a modern self. The cultural theses in pedagogy were related to an American Exceptionalism, a narrative that placed the nation and citizen as a unique human experiment for moving civilization toward the highest ideals of human values and progress. Ironically, planning for a more inclusive society had its dark side in the fears of industrialization and urbanization. These fears traveled with the hope of the sciences of pedagogy.

The first section focuses on the different sciences of American Progressive Education pedagogy as cultural theses about who the child is and should be. The cultural thesis emphasized the emancipatory potential of human reason (agency) in the enabling of individual freedom and social progress. With the Enlightenment hope about reason and science were fears. The education and social/political movements of American Progressivism overlapped with transatlantic social and political movements among Protestant reformers concerned with The Social Question, a phrase on both sides of the Atlantic that focused on the perceived moral disorder of the city that linked to questions of social class at the turn of the twentieth century (Rogers, 1998). The pedagogical sciences expressed in an almost evangelical and redemptive faith that education could rectify social disorder and improve and possibly perfect society. The psychologies and social child psychology of G. Stanley Hall, the behaviorism of Edward L. Thorndike, the anthropological psychology of John Dewey, and the community sociology of the Chicago School were given intelligibility and plausibility within the reform projects about the hope and fears of modernity. The second section explores the qualities of this modernization of the self as an individual who can plan through reason and rationality in the continuous improvement in moral and material life.

The last two sections consider the inscriptions of a comparative method in the sciences. That comparison was embodied in the linguistic forms that differentiated and divided the qualities of cosmopolitan child from others, the backward and uncivilized. The sciences of the family and the child were to de-stabilize existing traditions of culture and behavior related to poverty and ethnicity, replacing them with cosmopolitan principles of action and reflection directed to «the future». For some reformers, the remaking of the urban individual required the losing of their ethnicities. In other instances, the strategies of socialization were to eliminate the radical European ideas about socialism in the processes of making an American identity. And for others, social science projects sought to integrate elements of the ethnicity into and enrich American norms and values.

The historical narrative goes against the grain. Historians of U.S. education have discussed Progressive Education as different and even contradictory movements. To make this differentiation, some argue that the Progressivism of Thorndike's behaviorist psychology and social efficiency won over Dewey's more romantic notions of pedagogy (see, e.g., Klieberd, 1986; Lagemann, 2000). From the perspective taken here about systems of reason, the differences overlap as the disparate practices form a grid that gives intelligibility to the «thought» of the pedagogical sciences. There is not a unity to these practices. Rather the assemblage of practices embodies an uneven and non-evolutionary flow of ideas, events, institutions and narratives.

THE SOCIAL QUESTION: SCIENCE IN THE RECONSTRUCTION SOCIETY THROUGH RECONSTRUCTING THE MORAL CHILD

The social and pedagogical sciences at the turn of the twentieth century were part of a cross Atlantic social Protestant reform linked to the formation of the modern welfare state. That welfare state brought together governmental activities with the formation of civil society to plan for the care of its population. This planning is found in, for example, legislation and planning measures about security against old age and sickness, poor relief, public ownership and development of urban transportation, planning of city streets and zoning, wage labor protection, the social reconstruction of countryside, and the development of modern housing.

1 My premise here is that all nations since the turn of the twentieth century are welfare state in the theoretical sense of the state's responsibility to care for the security and risks of its population, although this care is differently administered and never universal even in post-World War Two Nordic nations. This historical recognition is important for considering the problem of governing and the social and educational sciences as I will explore. Further, the policy-oriented social science can be found in the eighteen and early nineteenth centuries as Polizeiwissenschaften, a term about the understanding and improving of the administrative rules and regulator policies of the state (Wagner, Weiss, Wittrock, & Wollman, 1991). My discussion, however, focuses on the reform-minded sciences related to pedagogy.
among others (Rogers, 1998). The planning of reform were also embedded in The Fabian Society, German Evangelical Social Congress, the exhibitions of the Musée Social, the American Social Gospel Movement, and the transatlantic Settlement House movements, the latter as the social Protestant's most striking success. The Social Question about the moral order was taken up in the formation of the American Social Science Association in 1865. The latter was a loose collection of non-social science trained men and women who sought to assist the nascent welfare state by collecting data about the environmental conditions in which the urban poor lived.

The faith in science had an almost millennialist belief in rational knowledge as positive force for action. From city government reforms to the studies of the family, child and urban housing, Progressives sought to rescue those who suffered from or fell from grace in the debilitating qualities of the city and to change their modes of living. The urbane of the city in Progressivism would use the expertise of science to study the urban conditions that produced moral decay, and work with government for effective reform to eliminate its evils and purify its citizens of moral transgressions. The social sciences, for example, were to counter the disintegration and decay of the moral order in urban life felt by Protestant elites in Europe and the U.S. The study of urban conditions would correct the deviances and bring progress through planned intervention. It would identify the causes of alcoholism, delinquency, prostitution, among other practices positioned as violating the presumed norms of civility.

The social and educational sciences embodied a double quality. The efforts to enact a change in the conditions of people produced changes in people. The domestic sciences, for example, ordered and classified the interactions of the home to bring scientific approaches into child rearing, home cleanliness, and nutritional practices of the family. Morality, health, and science overlapped in the construction of the «modern» family to classify and order what the home is and should be. The methods of the domestic science rationalized daily life in a manner that was to guide individual choices and agency in effecting change in the uncertainties and dangers of modern life. The changes in the habitus of the home of the poor also entered into bourgeois living as well to change gendered relations.

The sciences of pedagogy had this double quality of enacting changes in the conditions of people that changed people. The American social and education sciences embodied narratives that transported from the early Puritan salvation themes into narratives of the Exceptionalism of the nation and its Chosen People. The national Exceptional was embodied in narratives of the individual as action-oriented and problem-oriented as was American society at large. The individual was a purposeful agent of change in a world filled with contingency.

The individuality was given divine sanction in the different sciences of American pedagogy. Theories of growth, development and progress in the social sciences embodied narratives of freedom that linked to stories and images of the nation as the exemplar of the moral, social and economic qualities of an industrious people who bring progress to humanity (see, Ross, 1991). John Dewey's anthropological psychology embodied particular cultural theses related to narratives of an American Exceptionalism that I spoke about earlier. Dewey saw no difference between a universalized notion of Christian values about the good works of the individual and the democracy of the nation that pragmatism embodied in its notions of community, problem solving, experimentalism, and action. Science was a mode of living that joined democratic processes and Christian reform notions of salvation in everyday living. The science that Dewey spoke about was not about what physicist or biologists did, but an imaginary of the procedures and processes that could be brought into the reason and rationality of everyday life. Dewey said that since «the future of our civilization depends upon the widening spread and deepening hold of the scientific habit of mind, the problem of problems in our education is therefore to discover how to mature and make effective this scientific habit» (Dewey in «science as subject-matter and as method», 1901; cited in Reuben, 1996, p. 63). Science became a particular mode of living rather than a body of knowledge.

The pedagogical sciences were devices to intervene in childhood and ultimately influencing what society will be. The school was to narrate its pedagogy in the image of the family, yet had to supersede its norms and cultural values in order to produce the citizen who embodied the hope and guaranteed the future of American progress. The affection, sympathy and cognition of the family were deployed as an explicit problem of the school's pedagogy. The theories and methods of the social sciences problematized and calculated thought, talk, feelings, and actions to shape moral agency through governing the principles of reflection and participation. Albion Small (1896), a former Baptist minister hired
to start a Department of Sociology at the new Rockefeller sponsored University of Chicago, gave attention to the family, urban reform and the future of the nation. For Small and later for his colleague, John Dewey, the social significance of the school curriculum was in its promise of social progress. Social psychology was «the science of assisting youth to organize their contacts with reality [...] for both thought and action» (Small, 1896, p. 178). The teacher held the key to the future of society through remaking the inner qualities of the child.

Sociology knows no means for the amelioration or reform of society more radical than those of which teachers hold the leverage. The teacher [...] will read his success only in the record of men and women who go from the school eager to explore wider and deeper these social relations, and zealous to do their part in making a better future (Small, 1896, p. 184).

Although John Dewey's pragmatism and Edward L. Thorndike's connectionism or stimulus response theory had different notions of the child and learning, the different psychologies were projects to modernize the child. That modernizing project was to produce the dispositions and sentivities for acting as the future citizen and, at the same time, the pedagogical sciences embodied the fears about the dangers and the dangerous people who placed that hope of the future in jeopardy. Dewey and Thorndike, for example, expressed fears about the urban child who was not yet civilized and thus posed a danger to the progress and freedom promised by the Republic. The pedagogies were to order the experiences of everyday life of schooling by ordering principles of reflection and participation. Pragmatism and connectionism or stimulus response theory enjoined science in the quest to democratize knowledge and participation.

The Protestant Progressivism embodied a shift in the knowledge of science that made possible the ideas of planning of the social and the individual. In the beginning of the nineteenth century, for example, science in the American university embodied the belief that all knowledge was unified. People and nature were thought of as fitting under one whole and subject to the same inexorable laws that governed the movement of heavenly bodies or the circulation of blood. It was believed that science would identify the providential rules of God on Earth (Reuben, 1996). The science of society would identify those laws and take its place with chemistry and physics (Commager, 1950, p. 201).

The belief in the unity of knowledge changed as Darwinism and disciplinary specialization produced questions about whether there can be a unified knowledge. In place of the unity of knowledge was a belief in the unity of the methods of science to calculate and order the social and physical worlds. The change in scientific «outlooks» was also bound to a more general social and political attitude to the secular world whose future had little or no certainty. From capitalism to the political regimes of the Republic was a notion that the future had no guarantees as it was ordered through the decision making and agency of its citizen. The social sciences were tools for calculating and making society and individuality.

The evolutionary thought and the focus on the processes of change enabled theories about the artificial intervention in the society and individuality. This change, it is important to note, did not happen in an evolutionary fashion. There were uneven flows and assemblages of different historical movements that ranged from political and social ideas about agency to the institutionalization and specialization of sciences, and methodical developments such as probability statistics to order and classify populations.

THE SOCIAL QUESTION: SOCIOLOGY AND PSYCHOLOGY IN PLANNING THE FUTURE

At one layer, the new social and educational sciences assumed the mantle of the modern and progress that de-stabilized existing hierarchies through reform agendas (Eisenstadt, 2000; Wittrock, 2000). This de-stabilizing of traditions entailed looking to the future in the late nineteen century. The future was to be emptied of the immorality carried from the past. American Exceptionalism, for example, was imagined as a place whose future would overcome the evils of modernization that it inherited from the European «Old World».

The cultural thesis of modern society and the self differentiated the past from the future. The Enlightenment's cosmopolitanism was re-memorialized as a cultural thesis of the reason of science for the human development that promoted universal values of progress. The notion of progress focused on the actions of the present in the name of shed-

2 It is important to note that eastern elite universities as Yale, Columbia, Harvard, Dartmouth, Princeton, were initially schools to train clergy.
Dewey's pragmatism was a project to design the individual who consciously used the science as a creative technology in daily life. The science that Dewey spoke about was inscribed generalized notions of science as a cultural practice related to everyday life and not as the elite cultural practices of disciplinary knowledge. Science was a process that was to create ethical systems that humanizes the individual, «thereby to gain control of the future» (Rockefeller, 1991, p. 3). Action was an activity in which the individual consciously plans to intervene in history (human agency) and make the future. «[T]hinking enables us to direct our activities with foresight and to plan according to ends-in-view, or purposes of which we are aware. It enables us to act in a deliberate and intentional fashion to attain future objects or to come into command of what is now distant and lacking» (Dewey, 1933/1998, p. 16).

In contrast to the anthropological psychology of Dewey, Thorndike's science was to bring out what was natural or innate in the child. The sciences of teaching were to eliminate old traditions and values that prevented a more human society and moral order. Thorndike took Darwinism in a different path than Dewey. Evolution enabled thinking about the most efficient methods to develop (plan) the innate qualities of the individual who will advance the common good.

The best citizen is one who advances most the common good. The surest, perhaps the only sure, means of advance is increase in truth. To the search for the truth Darwin gave an intellect of wonderful fairness and care, and a life of perfect devotion (Thorndike, 1909/1962, p. 47).
Behaviorism was to apply scientific methods for efficiently identifying and achieving the goals of education. It would identify the exact changes in concrete particulars of intellect and character in individuals that education was to bring about (Joncich, 1962, p. 8). Thorndike saw psychology as revealing more facts about human nature (Joncich, 1962, p. 9). Thorndike's science focused on heredity as a major factor in variation – innate and inherited inequalities in capacities to learn. Thorndike argued that «what differentiates man is man's original nature to reason» (Thorndike, 1912/1962, pp. 75-76).

Thorndike's psychology moves pedagogy from philosophy into a more scientific approach to realize the possibilities of nurturing the innate qualities of the child. Schools should build intelligence in the sense of beauty, hope, desire and fears about the moral order and nature of the child is to be controlled, but not by devices to change someone's intentions but by straightforward work with nature itself. Pedagogy was to be more scientific through adopting more rigorous objective and verifiable scientific methods drawn from physical sciences (Joncich, 1962, p. 2).

The sublime in the projects of the sciences of education in Dewey and Thorndike brought together two registers of modernity – social administration and freedom. The new social science and psychologies connected the child, family and community in social policy, health, and schooling with the metaphorical «American family» of the nation (Wald, 1995). Dewey's notions of education as producing «intelligent action» and the Thorndike's behaviorism were to change society (the idea of the common good) through planning who the child and family are and should be. The family was visualized as the cradle from which civilization was produced where a child learns to be civilized and of civilization. Parents, under the guidance of new social theories of health and education, would develop altruistic instincts that expressed self-obligation and self-responsibility in their children.

The teacher was analogous to the mother but the pedagogical tasks were to fabricate the child who disregarded the provincial traditions of the familiar and local that worked against collective American cosmopolitan norms and values. Teacher education, for example, was to select self-motivated and morally devoted candidates who would shape the character of the child. «The real end of all education is to produce morally trained men and women», an educator wrote in 1898, «rather than, except in special cases, scholars». Unless this point is kept in mind by the teacher throughout his school-life experience, the professional element of his chosen vocation fails utterly of its chief end, and the pedagogue places himself in the same class as the mechanic, producing things instead of creating characters... (cited in Mattingly, 1977, p. 44).

The professionalization projects of teacher education expressed both the hopes and fears of the moral order (Nóvoa, 1993). The incorporation of teacher education into the American university in the early decades of the 20th century can be read as a project to replace the teacher’s «principialism» with a cosmopolitan identity (Murphy, 1990).3 Professionalization projects embodied a new teacher whose allegiances were cosmopolitan in orientation and thus free from local, provincial and communal attachments. Professionalization became a tool for reshaping the lines of authority in school administration, for weeding out those of less desirable ethnic and social origins through requirements for higher education, and for instilling a sense of loyalty not to the community, but to the school principal, superintendent, and educational professorate (Murphy, 1990, p. 23). At the same time higher education was a «civilizing» practice that replaced the family and the community as primary influences in socializing children with those of the universalizing discourses of teaching and childhood.

PLANNING THE FAMILY AND COMMUNITY AS MODES OF «MODERN» LIVING

The new disciplines of sociology and psychology were instrumental technologies in the reforms of the child and the family. At one layer, the

3 For a discussion of Portuguese teacher education as a comparison, see Nóvoa (1993).
disciplines confronted the conditions of the city and The Social Question through its surveys of urban conditions and studies of immigrant life.

At a different layer, the cultural theses about modes of living used the family as its central image. The family was an administrative practice that brought love and sympathy into the industrial world. The school was to replace the family as the primary influence in socializing children. The image of the family was the earliest and the most immediate place for the paradigm of self-abridgement of culture and linking of individuality to collective belonging and «home».

The notions of community in theories of the family and childhood provided one strategy to overcome the debilitating effects of modernity and its urbanness. Conservatives and liberals looked to nature as a nostalgic image of a past rural community to reform the family. This image of the past is not something recouped from previous traditions but given by new networks and patterns of communication in the city. The notion of community drew from and adapted German social theories about the fall and resurrection of the city as a center of culture, belonging and home. The German sociologist Tönnies (1887/1957), for example, was brought into the American conversation. He contrasted the pastoral world symbolized in the notion of community (Gemeinschaft) with modernity as expressed in the notion of society (Gesellschaft). The pastoral vision of community in Gemeinschaft was where neighbors prior to modernity came closest to nature. The laws, conventions, and rules of public opinion in Gesellschaft were positioned as without the moral or ethical grounding of the memorialized pastoral images of Christianity.

The social and psychological sciences re-inscribed the pastoral image of Gemeinschaft in designing urban life. G. Stanley Hall's child study embodied a romantic desire to build organic values of a pastoral community into an increasingly specialized and mechanized urban, industrial, scientific civilization (Ross, 1972, pp. 335-337). Hall's (1893/1924) studies of the adolescent were a strategy to reconcile faith and reason, Christian belief and «Enlightenment empiricism» in the making of an American society.

The University of Chicago's community sociology and social psychology embodied cultural theses to reconfigure the modes of living in which immigrant families and their children participated in the city. Tied to the settlement house movements, the cathedral of the pastoral community's authenticity in face-to-face relation was given an urban existence. Community was important to the development of the citizen as the individual was a social self. Cooley, for example, deployed the concept of community as a regulatory principle to think about the stability and change of society. Cooley's notion of community articulated a romantic liberalism given shape by «a more general spirit of human nature» that was imagined in the national Exceptionalism of the nation (quoted in Ross, 1991, p. 245). The patterns of small community interactions were to eliminate the alienating qualities of modernity.

The primary group was an intellectual tool to link face-to-face relations and community (Gemeinschaft) with the conditions of modernity (Gesellschaft) (Popkewitz, 2004). Cooley (1909) saw the family as a primary group where a child learns of civilization through face-to-face interaction — an assumption that persists in various forms in contemporary social and psychological thought. The communication systems of the family would, for Cooley, establish Christian principles that stressed a moral imperative of life and self-sacrifice for the good of the group. He thought that proper socialization by the family and the neighborhood would enable the child to lose the greed, lust and pride of power that was innate to the infant, and thus enable the child to become fit for civilized society.

Community and the primary group were central notions through which domains of a moral community thought «lost» in urbanization and industrialization were to be re-inscribed in urban social life. Interactions and communication patterns were processes of mediation to link individuality to a collective belonging associated with the norms of society and a nation-ness. The theories of communication and interaction in education as «habits of thinking» were to «create attitudes favorable to effective thought...» (Boyer, 1978, pp. 73 and 79). Dewey and his Chicago colleague George Herbert Mead pursued the planning of the individual through processes of mediation and self-realization in the domains of community. Dewey's notions of «intelligent action», problem solving and community urbanized the notion of Gemeinschaft pastoral, rural face-to-face community into a mode of life in the industrial conditions of Gesellschaft. Mead's social interactionism re-visioned the imagined Gemeinschaft as an urban idea of community «without doing violence to liberal democratic values» (Franklin, 1986, p. 8).

Theories of the child, family, and community embodied inscriptions to govern individual lives, and to carry out responsibilities that are not only for self development and growth but also for standardized public virtues. The invention of a range of technologies enabled the family to
inscribe the norms of public duty while not destroying its private authority. Rose (1999) refers to these as technologies of responsibilization.

The government of freedom, here, may be analyzed in terms of the deployment of technologies of responsibilization. The home was to be transformed into a purified, cleansed, moralized, domestic space. It was to undertake the moral training of its children. It was to domesticate and familiarize the dangerous passions of adults, tearing them away from public vice, the gin palace and the gambling hall, imposing a duty of responsibility to each other, to home, and to children, and a wish to better their own condition. The family, from then on, has a key role in strategies for the government of freedom. It links public objectives for good health and good order of the social body with the desire of individuals for personal health and well-being. A «private» ethic of good health and morality can thus be articulated on to a «public» ethic of social order and public hygiene, yet without destroying the autonomy of the family – indeed by promising to enhance it (Rose, 1999, p. 74).

**PROGRESSIVE EDUCATION AND PROGRESSIVE SCIENCES: CONSTRUCTING MODERNITIES**

I earlier placed Progressive Education into overlapping social and educational movements that were international in scope. In part it related cross Atlantic movements of Protestant reformist movements and The Social Question. Further, the constructions of the modern self in Progressive Education were made possible through a grid that gave intelligibility to the different social and psychological theories of Progressive education. Further, the modes of life being fabricated overlapped with processes of globalization that were also found in the New Educational Fellowship, among other, about the planning of the «New Man And Woman», a term circulating at the time. The Chicago School's adaptations of Tönnies' *Gemeinschaft* and *Gesellschaft* were not a mere serendipity of the times. The moral concerns of urban conditions embodied internationalization movements, flows of ideas, and institutional changes in a field that involved multiple modernities and constructions of modern «selves» (Rodgers, 1998; Popkewitz, 2005).

This brings me to the idea that the social and educational sciences continually assert its theories as having universal pretensions. The universality of science, however, has local narratives. This can be illustrated through comparing American and continental European traditions during the late 19th and early 20th century. Drawing on Levine (1994) and Wagner (2004), British social sciences, for example, elaborated a Newtonian image of the social world that included a secular ethic, the atomic view of nature in the human world, and evolution that combined with a strong concern with measurability. The French started with postulates of societal realism in which the social formation predominates over individual propensities. Society itself is seen as a source of normative and moral sentiments that prevailed in the construction of individuality as in Durkheimian sociology. German sociology, in contrast, emphasized an interpretive subject capable of self-determination through identifying and making choices between good and evil. German sociology was to understand the expressive subject, to recognize the cognitive subject, and to analyze the voluntaristic subject.

While there was an overlap in the interest in eugenics and heredity in intelligence testing in German and American pedagogical psychology, for example, the U.S. formed as an applied science whereas the interest in Germany was less practical and more philosophical (Depeape, 1997). German pedagogues were concerned with the *geist* or spirit of the nation and *Bildung* that differentiated its sciences from those of the U.S. and Switzerland where Calvinism and the republican ideals reigned (Tröhler, 2000).

The universal pretensions and local narratives in science provide a way to returning to the emptying of tradition that I spoke about earlier. The ridding of social life of the images of past was fabricating different sets of traditions in their place. The hope of the American Exceptionalism and the fear of those who would tear down its God-given promises were discourses to establish nostalgia for a past through the creating of that past and the forgetting of other ways of organizing the self and collective belonging.

If I can summarize the previous, the social, psychological and educational sciences historically overlapped as cultural practices related to similar problems of changing the conditions of society that also changed people. The sciences were to make the individual whose «thought» and participation provided agency for making the future progressive society. Dewey, for example, accepted a common association of his contemporaries that linked images of science to cultural thesis for living and *being* in a democracy. Pragmatism was to make the child whose «creative intelligence» and problem solving transformed the present through the professional values of scientists. This mode of living brought together principles for democratic participation with ethical qualities associated
with the spirit of a generalized Christianity. Thorndike’s stimulus response psychology, as Dewey’s pragmatism, embodied a narrative of science as both a social project and a mode of living. Thorndike’s science was to study the conditions of teaching. These studies were to provide the principles by which teachers’ direct children’s «learning» so that child internalized rational (scientific) processes and procedures as a way of ordering daily life. Thorndike defined the scientific basis of teaching as «to produce and to prevent changes in human begins; to preserve and increase the desirable qualities of body, intellect and character and to get rid of the undesirable» and «to control human nature, the teacher needs to know it» (Thorndike, 1906/1962, p. 60). Thorndike compared the laws of plants that the gardener need to know in order to grow, the engineer whose understanding of mechanics was necessary to plan stresses and stains of bridge, the knowledge of disease for physician as related to the sciences for teaching: «the teacher must act in accordance with the laws of the sciences of human nature» (Thorndike, 1906/1962, p. 60). He likened schooling to the building of house foundation. The teacher is the builder who knows «how to erect a frame, how to lay a floor and the like with reference to what is to be built; the teacher should often study how to utilize inborn tendencies, how to form habits, how to develop interests and the like with reference to what changes in intellect and character are to be made» (Thorndike & Woodworth, 1901/1962, p. 57).

The distinctions between applied and basic research dissolve historically among the human sciences.

PLANNING FOR HAPPINESS BUT DIVIDING THOSE WHO ARE THE POPULATION OF THE UNHAPPY

My last point about the systems of classification and ordering in the pedagogical sciences is also a more general one about social sciences. A comparative method is established to differentiate who «we» are, should be, and who is not that «we». By this I mean that the distinctions, differentiations and divisions of the human sciences function to inscribe a continuum of values. That continuum in education places the «developed» child as the most advanced point of human civilization. And at the same time differentiates the qualities and characteristics of the child who does not embody this point of development. The normalizations are in the categories and classifications of development, learning, achievement, for example. School was for all and for the development of an inclusive democracy and Republic. But the signification of the school for all also signified those children who did not embody the qualities for participation. Social and cultural distinctions were placed into theories of eugenics, for example, to talk about the child left behind (see, e.g., Franklin, 1994; Lesko, 2001). The comparative qualities of language produced a comparative method that qualifies and disqualifies children for participation.

The comparative quality in the pedagogical sciences appears through the inscription of a normative individual. Phrased in a democratic rhetoric, schooling is to produce a like-minded American community. The science of pedagogy is to make a society populated by urban, able, and virtuous individuals who give America its destiny (Franklin, 1986). This hope and the desire for a virtuous society, however, continually inscribe a fear of those who threatened that community. Edward Ross in first edition of The Principles of Sociology (1920) wrote that the school was the most important instrument of social control to contain the threat of the growing diversity of the population. The notion of diversity functions to divide cultures, languages and norms. For Ross, the ethnic modes of living of the immigrant need to be unlearned and reformed through schooling as education disseminates the ideas and ideals of American Exceptionalism.

Thoroughly to nationalize a multitudinous people calls for institutions to disseminate certain ideas and ideals. The Tsars relied on the blue-domed Orthodox Church in every peasant village to russify their heterogeneous subjects, while we Americans rely for unity on the «little red school house» (Ross, 1920, p. 409).

Ross continues to relate the school to other elements of culture and society to create a modern citizen. The school overlaps with other social and cultural practices, such as religious revivals, popular literature in the penny newspaper and «ten cent» magazine, social settlement and university extensions that create «comprehension and sympathy» through different social strata that previously shared little in the life of society. Ross continues that the production of ideas of social cohesion are to prevent «disruptive ideas» that have emerged with a «pseudo-Darwinism» as a competitive struggle for life, conflict of classes represented in the
Bolshevik revolution or the idea of employers as exploiters. These dividing practices are to be counteracted with the pride in and spread of American ideas (Ross, 1920, p. 410).

The fear of the populations dangerous to the future of the Republic and the hope of education to produce a cosmopolitan mode of life are embodied in Frank Lester Ward’s *The Dynamics of Sociology*. Ward, a founding member of the Chicago School of Sociology, argued, that education brought Darwinism into efforts to artificially intervene and civlize the immigrant family as they moved from their ethnic habits. Ward argued that education needs an «absolute universality» that was to neutralize the non-civilized or it will lower all of society. Methods in socialization in education was to take «the lesser of a civilization», the savage person whose actions springs from emotions and not the intellect (Ward, 1883, pp. 159-160) and «to raise the uncivilized classes up toward its level» (Ward, 1883, p. 595).

The narratives of the hopes of civilization and the fears of those not civilized were woven into child development and learning theories. G. Stanley Hall (1893/1924) talked about the education as bringing «the largest possible aspect of all the facts of life and mind is educational, and the only complete history is the story of the influences that have advanced or retarded development of man toward his completion, always ideal and forever in the future» (p. ix). Hall studied male Anglo-Saxon, white children to form his norms of child development and adolescence. Thorndike, as well, took the liberal notion of «the pursuit of happiness» as a goal of education. Education was to change the individual so that the individual can pursue «happiness». Educational science is to shape «the mind and the spirit of man» so the individual can be responsible for their progress, or trustful of their future.

Education as a whole should make human beings wish each other well, should increase the sum of human energy and happiness and decrease the sum of discomfort of the human beings that are or will be, and should foster the higher, impersonal pleasures (Thorndike, 1909/1962, pp. 46-47).

In the above hope to bring «happiness» is the «discomfort» of the populations embodied in the Social Question. This is the child who is to be. Thorndike, invoking Darwinism, saw science as a practice that redeemed those who have not embraced the civilized norms and values. Science, he says, is the «only cure» for the nation’s ills and as a founda-

The idea of science as planning was not planned

tion of progress directed «toward the good will of men». That need for a cure for the nation’s ills embodies the fears of the child who was not capable of using reason and rationality. Education was a mode of living that «prevents each new generation from stagnating in brutish ignorance, folly and pain. But far better education is needed to reduce the still appalling sum of error, injustice, misery and stupidity» (Thorndike, 1912/1962, p. 72).

The ignorance and moral disorder are placed into psychological registers. Schooling makes paths for helping the child pursuing their «wants» that are given social and moral qualities that are not merely those of science. The urge of children to get what the want, Thorndike argues, is to have child study those subjects «which they may get health, escape poverty, enjoy their leisure hours, and otherwise have more of what a decent, but not very idealist, person wants» (Thorndike, 1912/1962, pp. 142-143). The good will of men can be created and intensified, Thorndike continues, through identifying «the facts and laws» for the «treatment of subject races, in legislation for criminals and dependents, in the care for public health, and in the new view of the family, we may see the influence of Darwinism beginning to spread to statesmanship and social control» (Thorndike, 1909/1962, pp. 46-47).

To change men’s wants for the better, we must heed what conditions originally satisfy and annoy them since the only way to create an interest is by grafting it onto one of the original satisfiers. To enable men to satisfy their wants more fully, the crude curiosity, manipulation, experimentation and irrational interplay of fear, anger, rivalry, mastery, submission, cruelty and kindliness must be modified into useful, verified thought and equitable acts (Thorndike, 1912/1962, p. 76).

Thorndike incorporated a hereditary view of intelligence that was moral in character (Franklin, 1986). The notion of intelligence and moral character embodied a belief that Black Americans were less intelligence than white Americans. Thorndike conducted comparative intelligence levels of white and black students in high schools. With a grant from a philanthropic organization, Thorndike administered tests of selective and rational thinking, generalizing, and organizing. The test scores had fewer than 4% of the black students who passed the median white scores for the corresponding grades. The study reinforced conventional wisdom throughout the 1920s about racial differences (Krug, 1972, p. 109).
PLANNING FOR SOCIETY/
PLANNING WHO THE CHILD IS AND SHOULD BE

My argument about the formation of the pedagogical sciences in American schooling had at least five overlapping layers.

First, the education sciences embodied historical flows and assemblages that link with the cultural practices of the social and psychological sciences. The human sciences were not «merely» theoretical points of reflection neither were they «merely» empirical exercises to understand how the world works. The various sciences overlap in the system of reason that gave intelligibility to science as a practice of planning. Different institutional sites gave specificity to that planning as the object to improve things and ameliorating the conditions of people. And the planning to change the conditions of people entailed distinctions and divisions in changing people.

Second, I have argued that the sciences of education joined the reforming of society with that of reforming who the child and family are and should be. The theories and concepts of the pedagogical sciences embodied a mode of life for the child to become the future citizen. Central to this «reformed» child and family were the calculations that enabled the administration of agency, and the taming of development through ordering individuality in a temporal flow that could be identified and classified. Principles were generated about reflection and participation that disregarded the past and directed attention to the disciplining of the present for a particular and different future.

Third, the hope of the future was continually juxtaposed with fears of those who did not embody the cosmopolitan narratives and images of the nation. The concern for increasing happiness and decreasing the individual discomfort, if I can return to the expression of Thorndike, was not merely instrumental. The individuality inscribed values and norms of an American Exceptionalism through administering internal dispositions. John Dewey’s pragmatism and Thorndike’s connectionism, for example, were strategies to remake society through remaking the child and family.

Fourth and at a more methodological level, the American psychology and sociology in the school pedagogy were assembled through different historical trajectories that had no single origin (this can also be argued in other contexts, see, e.g., Hofstetter & Schneuwly, 2001). The outcomes of American Progressive Education and its sciences were not predictable at the outset. The changes occur through an uneven flow of events, ideas, institutions and narratives. Further, while one can relate the changes from one time/space to another, there are also important distinctions. One can compare this discussion of American pedagogy with, for example, Ramos do Ó (2005) who focuses on French and Portuguese pedagogy that drew upon an applied psychology that linked the reason of the child with the making of moral faculties.

The latter point brings up an issue of comparative history and processes of globalization, if I can play with a fashionable word in today’s lexicon. The social and pedagogical sciences, as I discussed earlier, formed differentially across Europe and North America. They had universal agendas but with local distinctions. The urban pastoral images made sense not only in Tönnies’ Germany but in other places in Northern Europe and in the U.S. These images and narratives were contested as different cultural theses about pedagogy traveled in South America, Asia and Africa as reformist agendas about modernization and the making of the modern self (see, e.g., Pereira de Sousa, Catani, Nóvoa, & Simon, 2005; Popkewitz, 2005). Brazil Catholic reformers, for example, argued against the «urbanism» of the Protestant reforms in promoting counter-enlightenment modernizing themes in pedagogy.

Two final points return to the beginning. The pedagogical sciences were formed through overlapping practices that gave intelligibility to the possibilities of «thought» and action. To speak of the overlapping practices is not to argue unities of processes or causation. The planning of society and the child was not planned. But once invented, the idea of planning moved with cultural differences through a broad international field in which modern schooling was taking place (Popkewitz, 2005; Meyer et al., 1997). The formation of the pedagogical sciences, its links with American Progressive Education, Progressive social and political reforms, European Protestant reform movements, as well as the international New Educational Fellowship, are not merely variations of a single theme. Across different spatial locations in Asia, Southern America and Europe were interests in planning the new society, state and citizen through notions of agency and science. Yet once said, these notions are not stable and fixed entities to measure along a continuum of modernities but embody different distinctions and differentiations through which solutions and plans for action are inscribed (Popkewitz, 2005). The question asked about the possibilities of thought is to historicize reason and the cultural theses generated about the participation solicited, encouraged, guided, and directed; thus not reentering a late twentieth
century debate about social control, a concept embedded in structural theories of history and society. The argument is here to recognize that freedom is never absolute and its registers overlap with registers of social administration in modernity.

REFERENCES


The idea of science as planning was not planned

Ward, L. F. (1883). Dynamic sociology, or applied social science, as based upon statistical sociology and the less complex sciences. New York: D. Appleton and Co.