Paul Smeyers Marc Depaepe *Editors*

Educational Research: Discourses of Change and Changes of Discourse



Educational Research

Volume 9

Aims & Scope

Freedom of inquiry in educational research can no longer be taken for granted. Narrow definitions of what constitutes 'scientific' research, funding criteria that enforce particular research methods, and policy decision processes that ignore any research that is not narrowly utilitarian, in many countries, create a context that discourages scholarship of a more speculative, exploratory, or critical sort.

In this series, internationally leading scholars in philosophy and history of education engage in discourse that is sophisticated and nuanced for understanding contemporary debates. Thus social research, and therefore educational research, is again focused on the distinctive nature of what it studies: a social activity where questions of meaning and value must be addressed, and where interpretation and judgment play a crucial role.

This educational research takes into account the historical and cultural context and brings clarity to what actually constitutes science in this area. The timely issues that are addressed in this series bear witness to the belief that educational theory cannot help but go beyond a limited conception of empirical educational research to provide a real understanding of education as a human practice. They surpass the rather simple cause-and effect rhetoric and thus transgress the picture of performativity that currently keeps much of the talk about education captive. The authors are united in the belief that there is a place within the social sciences in general', and within the discipline of education in particular, for 'foundational' approaches that enable the systematic study of educational practice from a discipline-orientated approach.

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Paul Smeyers • Marc Depaepe Editors

Educational Research: Discourses of Change and Changes of Discourse



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Contents

1	Mutual Dependencies: 'Change' and 'Discourse' Paul Smeyers and Marc Depaepe]
2	Technology, Education, and the Fetishization of the 'New' Nicholas C. Burbules	Ģ
3	Managing Change and the Language of Change	17
4	How Is It Possible to Make a Difference? Agency, Actors, and Affect as Discourses of Change in Education Research Lynn Fendler	29
5	'Too Busy for Thoughts': Stress, Tiredness and Finding a Home in the University	45
6	Creativity, Education and the Future	57
7	Neuromyths for Educational Research and the Educational Field?	71
8	On the Plurality of Mathematics Discourses: Between Power and Constraints	87
9	Learning to Love the Bomb: The Cold War Brings the Best of Times to American Higher Education	101

vi Contents

10	Change of Discourses: Theoretical Perspectives for US Teacher Education	119
11	From the French Republican Educational Reforms to the ABCD de l'égalité: Thinking About Change in the History of Girls' Education in France	137
12	The 'Crisis' Problem: On the Pervasiveness of Crisis Rhetoric in American Education Research	153
13	"It's the language, stupid!" Colorblind and Tone-Deaf as Discourses of Change in Educational Research	173
14	A Belief in Magic. Professionalization in Post Second World War Forced Child Protection	189
15	It's All About Interpretation: Discourses at Work in Education Museums. The Case of Ypres	207
Aut	thor Index	223
Sub	oject Index	225

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Bridges, and Morwenna Griffiths, the *International Handbook of Interpretation in Educational Research* (Springer, 2015).

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Marc Depaepe is a deputy chancellor at the KU Leuven, responsible for the campuses at Kortrijk (Kulak), Bruges, and Ostend; Co-editor-in-chief of Paedagogica Historica; Former president of the International Standing Conference for the History of Education; and member of the Board of directors of the International Academy of Education. He has published and co-published abundantly on the history of education. His selected readings, *Between Educationalization and*

About the Authors ix

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x About the Authors

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David F. Labaree is a professor at the Stanford University Graduate School of Education and a professor (by courtesy) in history. His research focuses on the historical sociology of American schooling, including topics such as the evolution of high schools, the growth of consumerism, the origins and nature of education schools, and the role of schools in promoting access and advantage more than subject-matter learning. His books include: *The Making of an American High School* (Yale, 1988); *How to Succeed in School Without Really Learning: The Credentials Race in American Education* (Yale, 1997); *The Trouble with Ed Schools* (Yale University Press, 2004); and *Someone Has to Fail: The Zero-Sum Game of Public Schooling* (Harvard, 2010). He has just completed a book for University of Chicago Press, *A Perfect Mess: The Unlikely Ascendancy of American Higher Ed.* He was the president of the History of Education Society and member of the executive board of the American Educational Research Association.

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Rebecca Rogers is Professor in the history of education at Université Paris Descartes, Sorbonne Paris Cité and a member of the research laboratory Cerlis (Centre de recherches sur les liens sociaux). Although American, she has spent most of her adult life teaching and writing within French universities about the history of girls' education and women teachers in France, Europe, and in the colonies. Her scholarly activities are very oriented to promoting dialogue among historical communities. This is manifested in her numerous methodological and historiographical articles on the history of education and gender history. Her most recent book *A Frenchwoman's Imperial Story: Madame Luce in Nineteenth-Century Algeria* (Stanford University Press, 2013) won the 2014 Boucher Prize of the French Colonial Historical Society. Elected President of the International

About the Authors xi

Standing Conference for the History of Education in 2015, she is currently at work on a book entitled *Travelling Conversations: French Women, Education and Empire (19th–20th Century)*.

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xii About the Authors

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Chapter 1 Mutual Dependencies: 'Change' and 'Discourse'

Paul Smeyers and Marc Depaepe

Educational research has been typically carried out within a discourse of change: changing educational practice, changing policy, or changing the world. Sometimes these expectations have been grand, as in claims of emancipation; sometimes they have been more modest, as in research as a support for specific reforms. Are these expectations justified? How have these discourses of change themselves changed over time? What have researchers meant by change, and related concepts such as reform, improvement, innovation, progress and the new? Does this teleological and hopeful discourse itself reflect a particular historical and national/cultural point of view? Is it overpromising for educational research to claim to solve social problems, and are these properly understood as educational problems? Thus far a number of the issues addressed within this collection: Educational Research: Discourses of change and changes of discourse. The book is part of a series publishing the 'results' of the annual meeting (since 2000) of a group of philosophers and historians of education who see benefit in complementing each other's stance in dealing with issues belonging to the discipline of education more in particular concerning educational research (see e.g. Smeyers and Depage 2015). It is indeed difficult to imagine changes in the educational context which are not also surfacing as changes in the discursive sphere.

Ulrich Herrmann (1993) claimed concerning the Enlightenment that there is a close relationship between educational theory and politics. On the one hand, in

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1

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itself the Enlightenment project can be qualified as educational because of its many implications; on the other hand the rise of educational theory as a discipline is typically an Enlightenment phenomenon. Although education played a vital role in the generation of the nineteenth century 'Nationstates' almost everywhere in Europe, the result of this process was not necessarily what the protagonists expected or predicted. Similarly, this can be argued for educational changes which manifested themselves as 'new' in the nineteenth and the twentieth century. Often a so-called Copernican revolution was predicted; an illustration of this is for example Claperède's belief that education would evolve from teachercentred to learner-centred (Benner and Kemper 2001-2007). A closer look at such international movements to change did not result in the hoped for (and predicted) upheavals, in any case not in regular education (see Cuban 2013): instead of surfacing at the level of educational practises, it surfaced much more in the discursive demarcation of the alleged 'old'. Educational practice adjusted itself to modernity, but its manifestations were hardly different from those that preceded. Much more continuity can be observed (see Depage et al. 2000) something also to be noticed when educational theory itself is scrutinised. Investigating for example the subdisciplines of history and philosophy of education Jarausch (1986) wrote on 'old' and 'new' history of education and one of the co-authors of this chapter labelled philosophical and methodological questions 'old wine in new bottles' (Smeyers 2008). Jarausch claimed that the so-called 'new' history of education of the 1960s which aimed to connect the social and cultural components of society with general history, was already carried through in several German projects of social/cultural interpretative approaches, some of which go back to the 1930s and even before. We leave aside to what extent these concern real changes in research rather than only paying lip-service to the programme and/or theoretically embraced stances. But one thing is clear: that there are changes at the discursive level is obvious for all those who glance at the many books and journals dealing with the educational field (in its broadest sense). It can hardly by avoided to notice the occurrence of fashionable trends, paradigmatic preferences (typical arguments, typical argumentative structures) and, not in the least, the popularity of particular authors. This amongst other things is addressed in this collection including its effects on the educational practice.

The first two chapters offer a refinement of the scene. In 'Technology, Education, and the Fetishization of the "New" *Nicholas C. Burbules* observes that there is in education a constant fascination with the 'new.' Education, because it is an intrinsically challenging and imperfect practice, is always looking for ways to improve, and this has led to a constant cycle of reform, optimism, disappointment, and then new reform. This is a very particular, and limiting, discourse of change. Most recently, he claims, this fascination with the new has shaped the ways that new digital technologies, and the affordances they provide for rethinking teaching and learning, have been talked about and incorporated into education. Outsized claims for 'new and improved' pedagogy have led to hyperbolic boosterism on the one hand, and criticisms about the unfulfilled promise of these new technologies on

the other. He argues that these errors derive from misunderstandings of what the discourse of the 'new' actually means, and misunderstandings about the nature of technology. New technologies are not in themselves improvements, but at best an opportunity for changed thinking and changed practices that are themselves the source of potential improvement; but these potentials are always also accompanied by the risk of harms and other unintended consequences. In the end, so he concludes, that it is the very fetishization of 'the new' that constitutes an impediment to actual change for the better in education. In the same vein Richard Smith starts from the observation that talk of the importance of 'the management of change' is widespread in education and other dimensions of public life. Such talk usually implies deterioration in the working conditions of teachers and other professionals, and tries to persuade us that committing fully to change rather than resisting it will make our lives more meaningful. In this it resembles various other historical movements for change in identifying the process or means of change with its ultimate end. While it often pays lip-service to the mutability of the world it is usually more concerned with making transitions from one stable condition of things to another. He claims that a different way of thinking about change and a different language and literature for doing so might help us grasp the limitations of many of the ways in which we are currently being asked to respond to educational change and reform.

The next chapter is by Lynn Fendler who describes three frameworks commonly inscribed in current educational research as discourses of change in educational theory: agency, actors, and affect. For each of these frameworks, she summarizes a robust version of the theory, and examines their respective assumptions about how is it possible to make a difference. Derived from the political theories of Marx, agency has been cast in dialectical opposition to structure, but sometimes also in relation to functionalism or determinism. This part of the chapter summarizes Frankfurt School assumptions about agency, analysing the implications for how change is possible. In Latour's Actor Network Theory, there is no dialectical relationship between structure and agency. ANT stipulates a difference between actors (which act) and actants (which are acted upon), which can be either human or nonhuman. ANT explains change in terms of associations in networks of human and nonhuman actors. Rejecting both agency/ structure and actor networks, non-representational theories of affect jettison all previous classification systems that may imply structures or differences between actors and actants. Non-representational theories include people, objects, atmospheres, feelings, tones of voice, ambient noise, machinery, serendipity, and constitutional law as potentials for change. This portion of the chapter performs the sort of difference affect makes.

In the next three chapters particular discourses are the main focus. *Naomi Hodgson* addresses the changes of discourse that can be identified in the language of policy related to the recasting of Europe as an Innovation Union, and the changes to the way in which the university and the researcher are discussed in this context. In contrast the ways in which the researcher is asked to articulate herself—in terms of leadership, excellence, and impact—Hodgson considers the language in which

researchers often describe themselves in the day to day life of the university; as tired, stressed, and not feeling at home in the university. Tiredness, stress, and homelessness are then considered with reference to philosophical sources to explore them not as barriers to productivity and thus to be overcome but as part of the work of study and as having educational potential. *Ian Munday* considers the claims representatives of the 'creativity movement' make in regards to change and the future. This will particularly focus on the role that the arts are supposed to play in responding to industrial imperatives for the twenty-first century. He argues that the compressed vision of the future (and past) offered by creativity experts succumbs to the nihilism so often described by Nietzsche. In the second part of the paper he draws on Stanley Cavell's chapter 'Philosophy the Day After Tomorrow' (from a book with the same name) to consider a future oriented arts education that may not fall victim to nihilism. Further Paul Smeyers starts from the observation that there is since a decade or so a new hype in educational research; it is called educational neuroscience or even neuroeducation (and neuroethics)—there are numerous publications, special journals, and an abundance of research projects together with the advertisement of many positions at renown research centres worldwide. After a brief introduction of what is going on in the 'emerging sub-discipline' a number of characterizations are offered of what is envisaged by authors working in this field. In the discussion that follows various problems are listed: the assumption that 'visual proof' of brain activity is supposedly given, the correlational nature of this kind of research, the nature of the concepts that are used, the lack of addressing and possibly influencing the neurological mechanism, and finally the need for other insights in educational contexts. Following Bakhurst and others a number of crucially relevant philosophical issues are highlighted. It is argued that though there are cases where neuroscience insights may be helpful, these are scarce and that in general not a lot may be expected from this discipline for education and educational research. A reminder is offered that the pitfalls of going along that road of neurophilia is just another neuromyth which needs to be addressed.

In their chapter on the plurality of mathematics discourses, *Karen François*, *Kathleen Coessens and Jean Paul Van Bendegem*, deal with the discourses of change related to mathematics and the way the changes of mathematical discourses and practices are discussed in philosophy of mathematics. They analyse two main questions. The first question is about the plurality of mathematics and the possibility of the simultaneous existence of culturally different mathematics; the second about the respective value of the different mathematics and its means of power in terms of 'disciplining' discourse. In order to investigate these questions they use a theoretical toolkit that borrows the concepts of 'language games' and of 'family resemblance' from Wittgenstein, the concepts of 'discourses' and of 'disciplining' from Foucault and the concept of vertical and horizontal discourses, and recontextualisation from Bernstein. One of the most challenging tasks in present-day philosophy of mathematics is to defend the thesis that 'real' mathematics is a long distance away from the idealized core of its practices, called the 'skeleton' in this paper. Nevertheless, this skeleton serves to identify

what is mathematics proper, i.e. mathematics performed in the academic area. All other elements in the mathematics discourse are ignored, shifted to the background to increase its skeleton's visibility. Such a strategy must lead to the rejection as being mathematical of a huge set of cultural practices that, according to many, do include mathematical aspects. If instead of a skeleton idea, family resemblances are called into play, an interesting multiplication and diversification of mathematics discourses and practices occurs, and it will include 'street mathematics', as well as ethnomathematical or other educational and pedagogical discourses, strongly or weakly related to academic mathematics. The necessity of the plural of mathematics discourses will force us to abandon a Foucauldian view that stresses the control and power of a unique discourse in favour of a more layered perspective. Because mathematical practices happen in diverse local, temporal and spatial contexts, multiple recontextualizations of what the flesh around the skeleton might be will occur. These will prevent one unique fixity and allow for multiple versions of the game.

In 'Learning to love the bomb: The Cold War brings the best of times to American Higher Education, David F. Labaree claims that American higher education rose to fame and fortune during the Cold War, when both student enrolments and funded research shot upward. Prior to World War II, the federal government showed little interest in universities and provided little support. The war spurred a large investment in defence-based scientific research in universities, and the emergence of the Cold War expanded federal investment exponentially. Unlike a hot war, the Cold War offered a an extended period federally funded research public subsidy for expanding student enrolments. The result was the golden age of the American university. The good times continued for about 30 years and then began to go bad. The decline was triggered by the combination of a decline in the perceived Soviet threat and a taxpayer revolt against high public spending; both trends culminating with the fall of the Berlin Wall in 1989. With no money and no enemy, the Cold War university fell as quickly as it arose. Instead of seeing the Cold War university as the norm, we need to think of it as the exception. What we are experiencing now in American higher education is a regression to the mean, in which, over the long haul, Americans have understood higher education to be a distinctly private good. Lynda Stone's chapter takes a different approach to the topic of discourse and change in theorizing that discourse means change. They emerge and decline and change occurs even as they change within themselves. Her study is situated in particular, current US institutional and societal contexts. The central focus is this: Using an event in US teacher education of students learning silent seat signals as discipline and control, she turns to discourse theories from three significant scholars. These are James Gee on identity in new literacies, Hayden White on use in literary style, and Ian Hacking on function in philosophical kinds. Foucault's influence is evident throughout. The chapter warns against taking discourses and their practices for granted in teaching-and-learning reform. Rebecca Rogers continues with the chapter 'From the French Republican educational reforms to the ABCD de l'égalité: Thinking about change in the history of girls' education in France'. The essay examines the way historians as well as educational administrators have presented the need to reform girls' education from the 1870s in France until the very recent debates in 2013–2014 about the introduction of sex equality education in pre-school and elementary classes. Initially she explores how arguments about progress, civilization and the education of women for change were translated in institutional terms, highlighting the contradictions and limits of Republican girls' education. She then turns to the debates of the twentieth century around the right to pass the same degrees and obtain the same wages (essentially focusing on the interwar period). Finally, the essay charts how the spread of coeducation and the hopes that it generated have measured up in the efforts to establish the equality of education for boys and girls. The public debate provoked by the experimental introduction of educational tools described as 'ABCD de l'égalité' reveals the hiatus that exists within educational discourses between an ostensible commitment to equality in education between boys and girls and public understanding of what equality entails.

In the next chapter Ethan Hutt starts from the observation that by definition, 'a crisis' suggests a rare and acute problem that demands a swift and, perhaps, bold response. But far from an exceptional time, so he claims, crises have become the normal state of American education discourse over the last half century—the period in which education policy research has come of age. Rather than serving as a potential brake on the use of crisis rhetoric in education policy, education researchers have accepted the crisis frame and used it to justify their own role in providing any number of—untested—educational solutions. In this respect, the idea of crisis during the last half-century has shaped not only the context in which education research has taken place but also the criteria by which it has been judged. Thus, crisis as a discourse of change has, in turn, coloured the lens through which researchers consider, perform, and evaluate research: abetting action-bias, shifting risk calculations, and contributing to the harried search immediate solutions—all in the name of addressing the crisis. In his chapter Jeff Bale sets two metaphors for change within educational research against each other. The first, colour-blindness, is related to racial equity, specifically the policies and pedagogies that claim to foster equitable outcomes for racialised students. Scholars, especially those with commitments to critical race theory, have used this metaphor to define a conceptual spectrum bounded by race-neutral and race-conscious education policies. By plotting specific policies along this spectrum, scholars have historicized claims to colour-blindness in an effort to better understand racial (in-)equity at and through school. This paper extends that metaphor to introduce the notion of tone-deafness. Similar to colour-blindness, tone-deafness foregrounds the question as to whether a given education policy is language-neutral or language-conscious. This paper explores tone-deafness in two ways. First, and similar to colour-blindness, the metaphor helps to historicize the development of language education policy, and to understand the sharp contradictions of contemporary education policies that are formally language-neutral and yet negatively affect speakers of minoritised languages. Second, the paper uses the notion of tone-deafness to analyse contemporary educational research on English language education.

The penultimate chapter 'A Belief in Magic. Professionalization in Post Second World War Forced Child Protection' is by Jeroen Dekker. Before the Second World War, he claims, child protection was mainly carried out by volunteers or experienced but uncertified experts. This was true for family guardians, the composition of Guardianship Boards, with only the secretary, often a lawyer, being paid, and with the personnel in re-education homes. An exception on the rule was the juvenile judge, one of the few professionals within child protection. After the Second World War, a constant urge to change of discourses resulted into professionalization and a child protection characterized by scientific research. In this period, child protection seemed to be in a continuous crisis with in the 1960s, with the number of child protection measures dramatically decreasing, satisfaction with the work diminishing and pride of the job fading away. The numerous reports and publications published on reorganization and uplifting the quality of child protection proposed further professionalization and further research as the only option for the solution of the many and fundamental problems diagnosed. Such proposals also appeared in the proceedings of congresses celebrating the 1905 child acts in 1955, 1980 and 2005. The belief in professionalization and research, and thus in discourses of change, was based on high expectations of changing behaviour of children and parents. The belief in the magic of change continued also when those expectations failed so he concludes.

Finally, in 'It's all about interpretation: discourses at work in education museums. The case of Ypres', Marc Depage and Frank Simon deal with their years of work as scientific advisers to Municipal Museum of Education in Ypres. They can easily link their experiences to the idea that writing and representing histories is above all a matter of making interpretations, and even of making interpretations of interpretations. Evidence for this point of view is to be found in association with the craze of the 2014 commemorative education on the occasion of the centenary of World War I, in which the normative content of the accompanying history-making machine can hardly not be recognized. It is obvious that contemporary interests play a part in this—as is the fact that these interests are easily projected on the past. This is certainly the case in Ypres, which holds on the one hand the historical world heritage of the battlefields and massacres of 1914-1918 and possesses on the other hand the most important education museum of Flanders. The history of this Municipal Museum of Education is, moreover, complexly linked to that of the flourishing In Flanders Fields Museum (IFFM) which main purpose is to propagate the message of peace as the bottom line of commemoration. In their article they investigate, at the basis of their own experiences, how all these in fact educational discourses interact and conflict with each other, and to what extent they are affected by extra-scientific motives, such as for example the defence of one's own institutional positions.

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References

- Benner, D., & Kemper, H. (2001–2007). *Theorie und Geschichte der Reformpädagogik* (Vols. 5). Weinheim: Beltz.
- Cuban, L. (2013). *Inside the black box of classroom practice. Change without reform in American education*. Cambridge, MA: Harvard Education Press.
- Depaepe, M., et al. (2000). Order in progress. Everyday educational practice in primary schools: Belgium, 1880–1970. Leuven: Leuven University Press.
- Herrmann, U. (1993). Aufklärung und Erziehung. Studien zur Funktion der Erziehung im Konstitutonsprozeβ deer bürgerlichen Gesellschaft im 18. und frühen 19. Jahrhundert in Deutschland. Weinheim: Deutscher Studien Verlag.
- Jarausch, K. H. (1986). The old "new history of education": A German reconsideration. History of Education Quarterly, 26, 225–241.
- Smeyers, P. (2008). Qualitative and quantitative research methods: Old wine in new bottles? On understanding and interpreting educational phenomena. *Paedagogica Historica*, 44, 691–705.
- Smeyers, P., & Depaepe, M. (2015). Die Forschungsgemeinschaft "Philosophy and History of the Discipline of Education" – Ein Rückblick. Einleitende Beiträge Zeitschrift für Pädagogik, 61, 623–642.

Chapter 2 Technology, Education, and the Fetishization of the 'New'

Nicholas C. Burbules

Petrus Paulus Vergerius was talking about the 'new education' in 1400, and ever since education has been enamored with its own constant reinvention. In every era, it seems, education is restlessly trying to supplant some old, traditional, stultified approach with something new. It may be, as I will argue, that this constant need to reinvent is typical of the educational endeavor itself. Other times, the 'new' needs to be viewed as part of a discourse of change that serves political purposes. At still other times, especially in the modern era, the 'new' is a strategy of educational product promotion that reflects specific commercial interests: a context in which the ubiquitous slogan 'new and improved' has special resonance. All of these factors are relevant to understanding why new technologies in education have been promoted (over-promoted, really) in the ways that they have.

I

A brief review of synonyms used for 'new' indicate part of its appeal as a discourse of change: "recently developed, up to date, latest, current, state-of-the-art, contemporary, advanced, modern, cutting-edge, leading-edge." New is innovative. New is exciting. New is cool. New is unprecedented.

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¹ Tedlow (1996). In the United States, the Federal Trade Commission ruled that products can only use the phrase 'new and improved' for 6 months.

² Oxford Dictionary http://www.oxforddictionaries.com/us/definition/american_english-thesaurus/new

N.C. Burbules

But all of this is misleading. New does not mean *sui generis*, something original springing forth out of nothing. Something that is new must have emerged from something that is not itself new. The new may be a variation, an outgrowth, a combination, a modification, or a development of some thing that came before. But the new, in order to be recognizable as such, needs to be based in something familiar: a new car, a new detergent, a new approach to teaching. Something truly *sui generis* would be unrecognizable: What is *this*? What do I do with it?

Sometimes a new thing changes the way we think about that sort of thing: a new portable, wireless telephone changes the way we think about what a 'telephone' is, how and where we use it, and what it is good for. New technologies often work this way: changing our desires and expectations, changing our practices, changing our horizons of possibility. Drawing here from Heidegger, what makes a technology new is just this: we are changed by it and by how we use it; but as it becomes familiar and integrated seamlessly into our everyday activities (or, to turn that relation around, as we become acclimated to it) the technology ceases to be 'new.' A light switch is a crucial technology that we use dozens of times a day, but without ever being aware of it – until, that is, the day the bulb burns out and the light doesn't turn on. Then we become acutely aware of the light switch and all that is connected it. We have to fix it, or replace it with something ... new. Perhaps we replace the light switch with a motion detector that turns on the lights automatically. How is that going to change our lives? Will it be an improvement?

Unexpectedness, then, is part of the new: we don't fully know what will happen when we use or encounter something new. Or, we act in a familiar way and something else results. Newness, then, is linked with the idea of discovery or new possibility; but is also linked with the idea of puzzlement or uncertainty. One distinct type of newness is a *mistake*. We do something incorrectly, and it produces a result that we have never seen before. We try to do something, and it doesn't work. Not all newness is pleasant or productive.

This puts a different spin on those synonyms, 'recently developed, up to date, latest, current, state-of-the-art, contemporary, advanced, modern, cutting-edge, leading-edge.' These types of changes are not necessarily innovative, exciting, and cool – they can also be puzzling, unsettling, disorienting, and in some contexts threatening. What is the new replacing? What changes do we need to undergo as a result of these developments? What is the loss that corresponds to any gain such novelties might bring with them? Why are people so certain that new means better?

II

As noted, the field of education has a special susceptibility to this kind of discourse. In part, I think, this is because education is about a process of growth and improvement for the learner; and as a result it is a process that continually seeks growth and improvement itself. New approaches to teaching, new curriculum design (infamously, the 'New Math'), new approaches to assessing learning, new

funding and organizational models for schools – each trumpeted with great fanfare and optimism about the prospects for enhanced learning outcomes, greater equity, or more efficiency.

And yet, the most striking thing about the institutional context of schooling is how resistant it has proven to be to fundamental reform. The basic parameters and pedagogical interactions found in most classrooms have been unchanged for more than a century. New textbooks are still textbooks. New tests are still tests. New curriculum standards and metrics still assume that standardization and measurement are the keys to success. New approaches to teaching and teacher education still put the teacher in the center of a classroom with two to three dozen students, of roughly the same age, sitting at desks or tables throughout much of the school day, which is in turn divided up into periods and subject matter divisions. New approaches to student discipline operate within a behavioral discourse of 'time on task' and 'executive functions,' but these are just new slogans for old ideas like attention, focus, and self-control.

'New' here does not mean original or transformed: it means a changed approach to achieving mostly unchanged educational objectives. It means, in most instances, the hope for greater effectiveness in accomplishing what we always hoped to accomplish. There is a tremendous appeal to this discourse in political contexts, where members of all parties promise new approaches to educational improvement. There is always bipartisan agreement that schools need reform and improvement. But this almost never means actually rethinking or abandoning educational aims: it is invariably about resource allocation in relation to productivity, and accountability based on performance as measured by tests. There never seems to be any real political appetite for questioning those indicators of success or engaging a public conversation about what truly different, 'new' approaches to education might entail. What they almost certainly would entail is a reordering of political power and drastically redistributing access to resources, which means they are very unlikely to happen. And that in turn means that alternative educational theories and substantial reform proposals almost always come from outside the political context. The reforms coming from within the institutional context are not truly new; the reforms coming from outside it might be new, but they have very limited influence over that context.

Another aspect of the appeal that discourses of the 'new' have for education arises from the inherent difficulty and imperfectability of the endeavor. Different learning styles, the crucial impact of motivation, the importance of educational influences and supports (or detriments) in homes, families, and communities that operate outside the control of schools, all mean that the actual levers of influence within the power of teachers and schools are attenuated by significant influences largely outside their power. Processes of school improvement and change always prove to be even more difficult than expected; their actual results more mixed; their unintended consequences often vexed. The consequences of fully coming to grips with this realization are, I think, deeply discouraging. The notion of a new key that promises to unlock these mysteries has some appeal, even if that promise turns out to be illusory. Educators are optimists.

12 N.C. Burbules

There is something about the educational dynamic itself that, I think, invites this restless search for new answers. In the *Meno*, famously, Socrates asserts that true knowledge exists already within the learner (every learner), and that the teacher's task is simply to draw it forth. This fosters a fundamental optimism about the possibility of learning, since the same basic potential exists in every student. But if one does not accept the premise that every student has the same potential, then education inevitably becomes something else: not a steady climb toward the Truth, but something more like Sisyphus, two steps forward and one step back, successes that are counterbalanced by failures, hopes that turn into disappointments, tradeoffs between realistic and achievable goals (for some) paid by the price of recognizing that others will be left behind. This is a much less heroic characterization of the educational endeavor, one that I have called 'tragic' (Burbules 1990).

From this perspective, therefore, it is tempting to imagine that some new approach will overcome the doubting suspicion that our educational efforts are always incomplete, always unequal, always less than we might have hoped. Why can't we do better? Why can't we help every student succeed? We just need a new and improved approach, so that we can be new and improved as teachers.'

This appeal is reinforced by a marketplace of educational innovation, with the same commercial strategies that we see in advertisements for cars or shampoos: try this new thing, and *you* will be better, and happier. Commercials start with the promise of improved functioning for the product, but always end up promising an improved life for the user of the product. In many cases, there is an implied deficiency in the user, which the product will remedy ('Do you still have stubble after shaving? Do you have ring-around-the-collar?'). But the greatest implied deficiency is to be behind the curve of what is 'recently developed, up to date, latest, current, state-of-the-art, contemporary, advanced, modern, cutting-edge, leading-edge.' Educators, given what I have suggested is the inherent insecurity of their endeavor, are fertile ground for such appeals.

Hence, educational marketing follows similar strategies, whether for specific products, new reforms, or professional workshops. As with cars and shampoos, the starting point is improved performance for the product or technique, demonstrated through comparative metrics and increased satisfaction. But very soon the other element creeps in: As a professional, *you* have an obligation to improve yourself; *you* are the product needing improvement. A better classroom and improved student performance would also be better for *you*: fewer frustrations and disappointments, an enhanced sense of empowerment and control over your situation, the pride of a job better done. The teacher can become new and improved too.

Ш

All of this is background for my main concern here, which is the way that new digital technologies – computers and related mobile devices, software, wireless connectivity, and access to the information resources and communication media of

the Internet – are represented as an unprecedented opportunity for the transformation and improvement of education. This is our latest, and most popular, discourse of educational change.

First, and most important, these new technologies are commercial products too: things to be bought and sold, with built-in obsolescence so that we need periodic upgrades. You buy it once, but keep paying for it. The Internet may be free, but many of its most popular resources, like search engines, are subsidized by advertising. Computer companies have long understood that securing even a small percentage of the educational marketplace is vastly profitable, not only for the volume of immediate sales, but for future upgrades, for software sales, and for longer-term product loyalty in making technology purchases outside of schools. And the public relations value of a company projecting itself as a leading innovator and benefactor in improving schools is a benefit that very few other commercial products can claim.

Second, governments have gotten aggressively involved in spending for new educational technologies and infrastructure, usually far ahead of any planning about what to actually do with them. The love affair with the new, the imperative to be seen as doing something (anything) to improve schools, and real or perceived competition with other countries and what they seem to be doing, have all combined to create a constant imperative to acquire or upgrade technological resources in schools. Expensive as these are, the even greater cost is the corresponding need for the continual professional development of educators in using these technologies – and this is where the spending often lags.

The stories are rife of schools with computers still sitting in boxes because no one knows how to set them up or use them. The 'one laptop per child' initiative in many developing countries, which put inexpensive, simple machines in the hands of students, failed in large measure because there was no corresponding effort in helping teachers learn to use them.

Third, at a discursive level, the discussion of new technologies in education has featured extraordinary highs and lows of hyperbole. Twenty years ago, Louis Gerstner, head of IBM, said, "Before we can get the education revolution rolling, we need to recognize that our public schools are low-tech institutions in a high-tech society. The same changes that have brought cataclysmic change to every facet of business can improve the way we teach students and teachers. And it can also improve the efficiency and effectiveness of how we run our schools." (Congressional Record 1995). This talk of 'revolution' and 'cataclysms' is reminiscent of the more recent discussion by Clayton Christensen of "disruptive innovation" (Christensen et al. 2006). Taking advantage of the new, on this account, entails risk and a tolerance for danger: the truly new, on this view, means not just a marginal improvement of the old, but its fundamental overthrow.

But the hyperbole is just as strong on the negative side: overpromising the educational potential of computers is 'Silicon Snake Oil,' according to one book (published the same year as Gerstner's comments) (Stoll 1995). When promoted by people who also have a commercial stake in technology sales, the rhetoric of the

14 N.C. Burbules

new is viewed as just another smooth marketing slogan – and often, a kind of overpromising.

The problem here is that both kinds of hyperbole obscure the real choices, and the real risks and dangers of both action *and* inaction in dealing with educational reforms. New technologies are neither the key to solving education's problems, nor a blight that will make those problems worse. How do we think about the potential, and the limitations, of technologies in education without getting caught up in the fetishization of the new?

IV

The tendency to think of technologies as promising 'new and improved' approaches to education is closely linked with another mistake, the idea that these technologies are tools. A tool is thought of as an implement for achieving something; usually it is designed with that purpose (or those purposes) in mind – a hammer, an umbrella, a ladder, a pen.

But we soon discover two things about tools. One is that they can also be used for other purposes different from those intended – a hammer for breaking ice for drinks, an umbrella turned upside down for capturing rain water, a ladder as the target for throwing balls in a children's game, and so on. Are these misuses of the tool? Are we using it wrongly? Or is it the invention of something new? The other is that even in accomplishing their original purposes tools often give rise to new possibilities unanticipated by their original intended use. A pen is for writing, but in writing we start to discover new purposes: new modes of communication, record keeping, scholarship, keeping a diary, sketching. Are these new uses and purposes a reinvention of the tool? A creation of a 'new' tool? (Even though it is identical with the old one?)

What these reflections suggest is that a tool is 'new' only for a very short time; its initial newness goes away with familiarity and use, but then over time it can acquire, if you will, new kinds of newness. The 'new' is not in essence a temporal quality, nor a status of unprecedented originality: it is a relation between a thing, familiar or not, and the imagination and creativity of the person using it. An invention can be continually reinvented. An old standby can become 'new' in the discovery of a new use for it. Conversely, a tool that is new, but only used in a standard manner, for a specified end, is like a new pair of shoes: they only remain 'new' for a relatively short time. They are still just another pair of shoes, even if they might be a nicer or more expensive version of the shoes one had before.

Therefore, in education, the romance with the 'recently developed, up to date, latest, current, state-of-the-art, contemporary, advanced, modern, cutting-edge, leading-edge' is misleading. There is nothing in any of that that necessarily indicates *improvement*. Doing what we have always done, just faster or more efficiently, is not innovation. Adapting a new tool to an existing context of use saps it of its newness. Conversely, even a familiar table or a pencil or a blackboard

can become 'new' if it is used ingeniously, in a new way, for a new purpose. That is innovation.

In 1999, Sugata Mitra embedded a computer (far from 'state of the art') in an outdoor wall in a slum in New Delhi, where people could access it. With no training or background ordinary people, especially young people, taught themselves how to use the device and do interesting things with it.³ This, one might certainly say, was 'new' – but what was new about it was the upending of assumptions: that computers were terribly complicated, obscure devices that require hours of training; or that a computer in a wall (in a slum) would be stolen or vandalized or broken through misuse; or that poor children were educationally disadvantaged and incapable of independent learning; etc. In other words, what was new was not the technology, but the context of use and a range of changed assumptions about where, how, and by whom learning can happen.

For these slum kids, perhaps, the computer was new. Presumably none or very few had ever used one before. But what was even more new was the opportunity to play around with one, without supervision, instruction, or anyone telling them what they could and could not do. What was new was a learning environment that was within their control, individually and collectively. And what was new was the realization that *they could use a computer*, something that many might have assumed was beyond their capabilities.

Those of us who use a lot of technology in our teaching can tell you that you don't want the 'recently developed, up to date, latest, current, state-of-the-art, contemporary, advanced, modern, cutting-edge, leading-edge' in the classroom – they are unstable, risky. You would prefer something less than state-of-the-art, but durable and dependable, because the last thing you want in a technology-supported classroom is for the technology to be the focal point, the problem. There is work to be done, and the technology should be there to enable the work.

So where does change come from? Not from 'new' technology itself. Change comes from changed ideas, changed practices, changed relationships, changed goals and horizons of possibility. These depend less on the technology than on the users and the contexts of use. A new technology is an opportunity to think about things differently, to experiment, to take chances and find out what happens next. But different people, and different contexts, have a different tolerance for all of that. The new can be destabilizing, disturbing. Furthermore, sometimes, as I said, what is 'new' turns out to be just a mistake. Who has a tolerance for that?

'New' doesn't *mean* 'improved' – it means *different*. And so when something new is simply incorporated merely as a tool into an existing order, for existing purposes, it really isn't new. But it's less risky that way.

This is a good time to recall that a fetish is literally just that: investing an inanimate object with magical significance. Technologies in education are often like this: literally, fetishes into which we pack our hopes and desires; a wish for simple answers to complex, indeterminate problems; the search for *solutions*

³ http://www.ted.com/talks/sugata_mitra_shows_how_kids_teach_themselves

N.C. Burbules

(a word I am coming to really dislike); seeking remedies for our frustrations and disappointments. Technologies are in fact none of these things. By their nature they have the potential for good or bad, success or failure. Often, it is in achieving success at some purposes that we become simultaneously aware of our failure at others.

One time Richard Rorty gave a lecture at my graduate school, and he talked about technology's progressive potential, even when it might have unintended bad consequences (pollution, for instance). In a large auditorium I screwed up my courage to ask him how we could know it was progress when the consequences of a new technology may, in the long term, be more harmful than its benefits. "Don't worry," Rorty replied, "we will just develop a new technology to deal with those consequences." I think you can see that this was not a very satisfactory answer, but it reflects something about the modernist faith in new technologies and the lack of a certain tragic sense of things.

In this sense, we can see that the discourse of 'newness,' and the fetishization of the 'new,' is actually an *impediment* to change. It is an impediment, first, because it mistakenly assumes that the new is inherently an improvement, when it is at most *an opportunity to do other things that might bring about improvement*. Second, especially but not only in the context of new technologies, it misunderstands the dynamic, relational, and not static nature of a 'tool' and what is it good for. Third, it misunderstands the nature of change and what drives change: not new technologies themselves, but an interaction between technologies and our own changing practices, aims, and values. What makes technologies 'new,' if anything, is what we figure out to do with them. The new is an artifact of our imaginations and willingness to explore the unknown, not a characteristic of things.

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References

Burbules, N. C. (1990). The tragic sense of education. *Teachers College Record*, 91(4), 469–479.
 Christensen, C. M., Baumann, H., Ruggles, R., & Sadtler, T. M. (2006, December). Disruptive innovation for social change. *Harvard Business Review*. https://hbr.org/2006/12/disruptive-innovation-for-social-change

Congressional Record. (1995, August). http://www.gpo.gov/fdsys/pkg/CREC-1995-08-05/html/CREC-1995-08-05-pt1-PgE1660-3.htm

Stoll, C. (1995). Silicon snake oil: Second thoughts on the information highway. New York: Doubleday.

Tedlow, R. (1996). New and improved: The story of mass marketing in america. Cambridge, MA: Harvard Business School Press.

Chapter 3 Managing Change and the Language of Change

Richard Smith

Economics are the method; the object is to change the heart and soul. (Margaret Thatcher, The Sunday Times, May 1981)

My mind turns now to human bodies changed Into new shapes and forms. Immortal gods, Look kindly on what I'm attempting here, Itself a change of theme that you inspired. (Ovid, Metamorphoses I, 1–3 (my translation))

I

The culture of academic journals is often a good guide to what ideas currently hold the centre ground. The Journal of Organisational Change and Management was founded in 1988. Similar journals include the Journal of Change Management (2000), the Journal of Organisational Transformation and Social Change (2004) and the Journal of Strategic Change Management (2006). Perhaps the only thing preventing further proliferation is the difficulty of coming up with a new title. The idea of change and its cognates - reform, restructuring, development, reorganisation and of course improvement – certainly seems still to be in command of the educational imagination. To take just the case of UK universities, recent issues of the *Times Higher Education* this autumn tell us that St Mary's University, Twickenham achieved full university status at the beginning of 2014. It is diversifying its provision, which used to be strongly focused on Theology and Education. It has a new vice-chancellor who is a former diplomat with no previous experience of university management. Faced with the task of pulling these different strands together, the writer of the article (2 Oct) chooses "New title holder intent on setting the pace for change" (the metaphor partly trading on a picture of the Olympic athlete Mo Farah, a recent alumnus). Ecuador hopes that a new campus "will usher in a transformative research and innovation culture" (16 Oct). Three of the world's top 10 universities are in Britain: "sustaining a competitive edge, however, requires

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R. Smith (⊠)

18 R. Smith

constant improvement and innovation" (23 Oct). Dozens of similar examples could be cited.

The *Journal of Educational Change* caught up with the publishing trend in 2000, evidently a good year to foreground the theme of change. Its editor, Andy Hargreaves, began his first editorial with the rhetorical question, "What better time could there be than the opening months of a new Millennium to launch a major new educational journal on the subject of change?" Further timeliness is indicated by the fact that "Nations, districts, leaders and sometimes teachers themselves are rushing to be on the leading edge of changes engineered by governments, fashioned by districts or financed by charitable foundations" (p. 1). Furthermore the whole thing can be exhilarating: "Those on the leading edge of change can find the push towards the future to be an energizing, optimistic experience" (*ibid.*). Really there seems to be no excuse for failing to join this particular in-crowd. Who would not want to practise the new 'calculative science' of change, "something you could plan and manage through models of effective schooling, planned cycles of managed change and predictable stages of implementation" (p. 2)?

A colleague with considerable experience of applying for senior university management posts tells me that where the most predictable question used to be 'tell us about your management style' (the right answer apparently was 'I don't have just one management style', followed by some account of the rich variety of your personal skills portfolio) the invariable question now is about your approach to the management of change. Here the correct answer is 'I've learned that you cannot mandate what matters', uttered with the ruefulness appropriate to one who has been through the same long and difficult journal as those on the other side of the table. Expand by explaining that complex change cannot be forced. Other good answers (it looks bad if all the candidates say the same thing) include 'Change is a journey, not a blueprint' (explain that change is non-linear, uncertain, often exciting and generally perverse), 'Neither centralisation nor decentralisation works' (more rueful smiles, but be quick to add that this means you need both top-down and bottomup strategies), and 'Every person needs to be a change agent' (you cannot leave change to experts). My colleague is still looking for that elusive management post, but he tells me that feedback on his interviews invariably compliments him on his understanding of the management of change.

Now of course no-one in the academy can be against genuine improvement. It is obvious enough that much turns here on the ambiguity of 'reform'. One of its connotations is of putting right something that is manifestly wrong, cleaning Augean stables and so on: this enables its other connotation, of simply changing things, casting them in a new form, to trade on the suggestion of bravely tidying the mess that has been inherited and setting a new and better order of things in place. This is especially useful for politicians, who naturally want to suggest they are doing better than their predecessors. Priests have exploited something of the sort in many cultures, persuading the gullible of the threat of divine disfavour in order to sell them the solution. Naturally talk of educational reform can also suggest possession of a vision of a bright new future, accompanied with all kinds of up-to-date electronic accessories.

There are various oddities in this ubiquitous 'change talk'. One is its capacity to paralyse the critical faculties. Two of my colleagues, hearing that I was writing a paper on change in education, separately responded by saying that yes, good management of change is so important. Another oddity is that the shibboleth maintains its power despite the fact that most people have grasped that 'change' and its near-synonyms seldom if ever portend an improvement in people's working lives. Usually they mean there will be job losses, out-sourcing (often to whichever developing country can do the work most cheaply), increasing job insecurity, everhigher targets, constant appraisal of performance, and less pay. Few employees, reading an email from Human Resources announcing a new programme of change and reform, think with excitement of the fresh opportunities (or 'challenges', as they will be called) ahead. Of course this is one more manifestation of the dehumanising doublespeak with which we are familiar. Making people redundant is "immediate net headcount reduction" (from the University of Warwick Council Minutes, 15 May 2013: the context is the 'restructuring' of the University's Institute of Education). Killing civilians has been 'collateral damage' for some time; on the large scale, for instance by US drone strikes supposed to target al-Qaida in Pakistan, it is now 'mowing the lawn' (Monbiot 2014), the grass which will grow back unless you go on mowing it. Thus drone strikes justify further drone strikes as surely as the grass goes on growing. The implied picture of a neat New England house with a picket fence in front of the lawn does further helpful work here. Such 'doublespeak' was given its name by George Orwell: its function was to make some things harder to say and thus harder to think. Perhaps it is a regular feature of times of rapid and violent change. Thucydides famously noted how words changed their meaning in the civil strife that accompanied the long war between Athens and Sparta:

Reckless audacity came to be considered the courage of a loyal ally; prudent hesitation, specious cowardice; moderation was held to be a cloak for unmanliness; ability to see all sides of a question, inaptness to act on any. Frantic violence became the attribute of manliness; cautious plotting, a justifiable means of self-defence. The advocate of extreme measures was always trustworthy; his opponent a man to be suspected. To succeed in a plot was to have a shrewd head, to divine a plot still shrewder; but to try to provide against having to do either was to break up your party and to be afraid of your adversaries. (*History of the Peloponnesian War III.* 82, trans. Crawley)

What seems to be distinctive of modern times, however, is that where Thucydides describes the way words altered their meanings as a result of revolution, in our time language is deliberately – or at least semi-deliberately – twisted to bring radical change about. Indeed we could even think of this process as our own age's most characteristic way of attempting to bring about change. Academics will surely prove more compliant when they internalise the idea that they are part of the *workforce*. In many universities what were formerly called *secretaries* have been re-named *administrators*: *secretaries*, after all, sound as if they merely support the work of others. Naturally their numbers grow, as if to remind the academics of the rightful order of things. The UK shares with Italy the highest ratio of 'support staff' to academics in Europe: 0.9 academics per support staff, i.e. there are more support staff than those they are nominally employed to support. For Sweden the

figures are 2.6 and for Germany 1.7 (*Times Higher Education* 22 Jan. 2015, pp. 20–21). Effecting change by altering language might seem a kindlier way than some of the strategies used in previous epochs, but people are still devastated by the termination of their careers, however much you reassure them that they are part of a necessary restructuring. The drones, while merely 'mowing the lawn', go on killing and maiming the innocent.

II

There is a number of influential theorists of the management of change in education, of whom perhaps the most prominent is Michael Fullan. One of his best-known books, *The New Meaning of Educational Change*, went through four editions between 2001 and 2007. Fullan's basic strategy, rather like Hargreaves's, is to assert that there is a great deal of change around in education, and since change is inevitable the best thing is to take part in it, signing up to the army of change-agents, working with change instead of resenting it as an imposition from outside. The way forward is to become persuaded that any proposed change makes sense: this is the 'meaning' of the book's title. The possibility that some changes are bad and should be opposed is discounted from the start, with a strange elision: "It isn't that people resist change as much as they don't know how to cope with it" (p. xii). That is to say, what might appear to be signs of resistance are really signs of difficulty in coping. Genuine and, particularly, justified resistance is thus quietly removed from the picture. The strategy is given rhetorical support by many of the twenty-first century's fashionable terms:

As we shall see, advances in cognitive science make meaningful the foundation for the new pedagogy of constructivism. Chaos or complexity theory leads us inevitably to the conclusion that working on 'coherence' is the key to dealing with the nonlinear fragmented demands of overloaded reform agendas. (xi)

In fact the book does not seem to have anything to say about either cognitive science or constructivism: certainly neither term appears in the index. Chaos theory and complexity theory seem to be identical in Fullan's mind, but they are not: in any case, both are comprehensible only by those with an advanced understanding of mathematics. Non-linearity in these theories is not the same as when we can all agree that reform agendas reflect absence of joined-up thinking and are in that sense non-linear. They are very different from what "justifies the existence of all managers", which has to do with "instability, irregularity, difference and disorder" (p. 102, quoting Stacey). Any remaining difficulties can easily be cleared up: "In their new field book, Senge and colleagues (2000) argue that fiat or command can never solve complex problems; only a learning organisation can" (p. 103). Perhaps all this constitutes too easy a target; perhaps my criticisms are facile. In any case Fullan would probably reply with a version of 'it works': in his words, "'the meaning hypothesis' has become deeply confirmed" in the decade since the

previous edition of the book (p. xi). Quite how it is confirmed he does not say: I suspect he means that lots of people agree with him, cite his writings and write positive reviews, but this does not amount to confirmation, deep or otherwise.

What I am concerned to emphasise is that in Fullan's writings educational change quickly leaves behind questions of just what changes are worthwhile and why. There is early mention of such ultimate goals as improving the lives of the disadvantaged, or producing "citizens who can contribute to and benefit from a world that offers enormous opportunity" (pp. 6–7), but these are not explained or discussed – what is the enormous opportunity an opportunity for? – and in any case we hear little more of them. The meaning of educational change, to use his refrain once more, is that "finding meaning in complex systems is as difficult as it is rewarding" (p. 19). Thus he echoes Hargreaves's assertion (above) that to be on the 'leading edge of change' can be an 'energizing, optimistic experience'. The purpose of working for educational change turns out to be for the intrinsic rewards of doing so. The means, change, has become the end. Perhaps this explains why there is little acknowledgement that some changes are entirely bad. The process will be fun whatever the outcome.

This can be seen with particular clarity in those who embrace Fullan's approach but are less careful than him in how they express similar claims. Joyce and Calhoun (1991), for instance, note that the management of change requires "the creation of a different culture of educators who understand change and how to collaborate to bring it about... Protection of role-status and working conditions will have to take a back seat to a collective interest in excellence in equity" (399). They are responding to Fullan's earlier, 1991 text, The Meaning of Educational Change, before it became New. Neither equity nor excellence appear in the index of the latter. As for the effect on what Joyce and Calhoun call role-status and working conditions, this is only to be expected of 'reform', as I noted above, while deterioration of professional satisfaction and working conditions are not to be dismissed as merely self-protective reflexes. Demoralised people do not make the best teachers or researchers. Then Joyce and Calhoun turn to the question of how all this is actually to be done. Their answer is revealing. "First, by treating change itself as an innovation that requires substantial changes in the culture of educators". This is another version of the now familiar point that you can't bring about particular reforms without turning education professionals into change agents and experts. Thus being an educator becomes first and foremost being a facilitator of change. Love of your subject, the pleasure you take in bringing on the next generation, your pride when they do well, now become secondary matters. This applies to everybody. Change only works "where everyone becomes expert in knowledge about change" (p. 336, italics original). What is required is change in the manner less of acquiring knowledge than of something like a universal religious conversion. Despite the apparently arbitrary reference to equity and excellence, a circle of mutual admiration embraces change, innovation and more change, with no room for anything else. The purpose of change is to become a manager of change. We should not be too surprised to find Management thus glorified.

Ш

One of the few dissenting voices among the cheer-leaders for change is Thomas Sergiovanni. He writes (2000, p. 57):

Few topics are of greater interest to policy makers and to policy scientists than is educational change. Most of these elites assume that somewhere within the depths of this discipline lie the secrets that, once understood, can lead a school, state, or nation on the path to school improvement. The stakes are high. Finding the right change strategy promises victory in the national and even international brain race.

Sergiovanni thinks that 'something is amiss' with what he calls the discipline and practice of educational change. He too has noticed the deeply-rooted confusion of ends and means, or what he calls process and substance. To the enthusiasts for change, "What seems to be important is not what the change is but how you change ... not leadership that blocks poorly conceived and potentially harmful change but leadership that 'turns things around'" (p. 59). He is prepared to say that we would be better off if certain change attempts failed rather than succeeded. If plans and ideas are simply bad, "teachers who resist change may be heroes" (ibid.). It may be every bit as important to preserve what is valuable about the existing state of things as to engineer change.

Sergiovanni draws on Habermas's distinction between system and lifeworld (System and Lebenswelt). The lifeworld refers to the aspects of social action that make possible co-operation and mutual understanding, shared meanings, regular and stable patterns of action and dimensions of the individual's personality that are at least partly based in, and supported by, communal activities and institutions. In the context of education, as Sergiovanni notes, this points to the importance of "the unique traditions, rituals, and norms that define a school's culture" (p. 61). System, by contrast, relaxes or replaces the demands of co-operation and mutual understanding – of 'communicative action' – with other ways of sending messages. Chief among these are markets and bureaucracies, or to put it more crudely, money and institutional power. Here rules and procedures become dominant. In the context of schools, everything then comes to be driven by considerations such as public examinations, which in the lifeworld would be just one way of finding out whether the deeper values of the institution, such as a concern for the life of the mind, for the transmission of culture, for education in short, were being properly upheld. In the lifeworld young people would choose universities partly by talking with students already there or recently graduated, by visiting potential universities in order to have discussions with lecturers and professors, in the process refining their sense of what a university education might be supposed to be for. System sends out messages via league-tables of various sorts, including the employability of those graduating in particular subjects and from particular universities; by charging students substantial fees, to be repaid after graduation dependent on salary, it has another way of telling them that the purpose of going to university is to land a wellpaid job. In the lifeworld sixth-form students are taught to read Jane Austen because she is so insightful about the ways of becoming, and of failing to become, a grownup human being; when they move on to university they find their lecturers accessible and welcoming, and they call in from time to time if they have a problem or want advice. In the world of system they read their schoolteachers' handouts, obediently highlighting the phrases that they are told will score marks in the exam; at university they find that some of their lecturers and professors are designated as 'academic advisors', who are expected to audit their 'employability skills' at the first meeting and suggest ways to polish their CV, for example by taking on a position of responsibility in student clubs and societies.

In summary, for Sergiovanni the way forward is "to make change theory and practice more lifeworld sensitive" (p. 70). He quotes Lieberman and Miller, who write of a way of approaching change in education that

respects diversity and confronts differences, that represents a sensitivity to and engagement with the whole life of students as they live it. The creation of new learning communities that include rather than exclude, that create knowledge rather than merely apply it, and that offer both challenge and support, provide the greatest hope for teachers who are in the process of transforming themselves, their world, and their work. (Lieberman and Miller, 1999, p. 91)

The distinction between system and lifeworld, whose echoes can be seen in the quotation above, captures something important. Yet there can be no guarantee that those in charge of organisations will not use such ideas as this to manipulate their colleagues while driving through the changes that they have already decided on. And the more we try to give meaning to such ideas and to insist on the significance of 'internal goods' in reshaping schools and universities, the deep values that are true to their intrinsic ends, the more we once again risk foregrounding process, and so further empowering the new managers of change. Solutions to the problem would need to include awareness of its continual possibility together with Sergiovanni's reminder that some changes deserve to fail and should be resisted. They might also involve new ways of imagining change: I turn to this in the remainder of the paper.

IV

For much of European history, at least of those small portions of it with which I am reasonably familiar, the typical attitude to change seems to have been resistance and denial, coupled with nostalgia. For the Classical Greek poet Hesiod it was self-evident that change could only be for the worse. Successive ages of humankind had witnessed radical deterioration. In the Age of Gold people lived long lives 'without sorrow of heart'. The Silver Age at least gave human beings the possibility of playing like children for a hundred years. Even the men of the Age of Bronze were respectable in being strong and warlike, and in not deigning to eat bread, and many of those of the Heroic Age had the glory of fighting at Troy and seven-gated Thebes. But Hesiod and his contemporaries lived in the Age of Iron, their days never free from labour and sorrow and their nights haunted by death (Works and Days

24 R. Smith

Il. 170 ff). Ovid gives a vivid picture in the first book of the *Metamorphoses* (Il. 127 ff. Ted Hughes's version):

And the day of Evil dawns.

Modesty,
Loyalty,
Truth,
Go up like a mist – a morning sigh off a graveyard...
The inward ear, attuned to the Creator,
Is underfoot like a dog's turd. Astraea,
The Virgin
Of Justice – the incorruptible
Last of the immortals –
Abandons the blood-fouled earth.

Last comes the Age of Iron.

For the Classical Greeks and for Republican Rome at least, then, the only change that could be contemplated was in the direction of the way of their ancestors, mos maiorum; and this was less a change, as we might think of it now, a matter of risk and uncertainty, than a return to what was secure and well-known. Christianity inverted the wretchedness of the Age of Iron, turning suffering, patience and humility into major virtues; systemic change for the better was not to be expected in this world. It is unsurprising that for millennia when the lot of humankind was violence, chronic disease, starvation and sudden death change was something to be feared. The image of the Wheel of Fortune, and lines from the medieval Carmina Burana, are emblematic: "Rex sedet in vertice, caveat ruinam! Nam sub axe legimus: Hecubam reginam". The king sits at the summit of the wheel, but let him beware ruin! For below the axis, that is at the bottom of the wheel, we read the name of Queen Hecuba, who lived to see her city, Troy, burned down and her children killed. In some versions of the legend she went mad with grief. In one she was given to Odysseus as a slave, while in another, snarling and cursing him she suffered the indignity – or perhaps the merciful release – of being transformed by the gods into a dog.

For millennia change was seen for the most part as to be endured, certainly not engineered; and such attempts as might be made to engineer it could generally be relied upon to end in disaster. The execution at the end of the English Civil War of Charles I, a king widely believed to have been appointed by God, appeared to many a deed so contrary to Divine rule that the planets might cease to orbit the sun. Mathematicians laboured to discover the laws of gravity that would provide reassurance. A painting by Joseph Wright of Derby, *A Philosopher Lecturing on the Orrery* (1764–1766), offers a vivid image: an orrery is a mechanical model of the solar system through which its predictable and reliable workings can be demonstrated. In the end, to be on the safe side, Charles's son was recalled from exile and enthroned as Charles II, in 1660. The Revolution in France was accompanied by similar ambivalence.

The idea of planned, managed change seems to have entered the western imagination from a number of sources. One was the increased secularism that was a central aspect of Enlightenment thought. From here it became possible, and

eventually natural, to think of a better life as something that might be found in this world and not, or not only, in the hereafter. The British utilitarians such as Jeremy Bentham and John Stuart Mill were able to conceive social change and improvement as in principle a straightforward matter of cost-benefit analysis. We owe many ameliorations of the human condition to this line of thought, including more humane treatment of animals, children and prisoners. It has also lead to some startling and reductive uses of modern cost-benefit analysis in environmental planning.¹

Another major source of thinking about change has been the work of Charles Darwin. It is easy to forget that the title of his great book, *The Origin of Species*, was shocking to the Victorian public because it directly contradicted the widely accepted view that God had fixed the number of species for all time in the act of Creation. Remarkably, many readers managed to be shocked even though they had evidence of the extinction of species (for example, of the dodo, the last of which was killed in 1681) and were themselves bringing new species into existence by the breeding of animals, especially dogs and pigeons. Darwin drew attention to this in the first chapter of *Origin*, Variation under Domestication ("I have associated with several eminent fanciers, and have been permitted to join two of the London Pigeon Clubs. The diversity of the breeds is something astonishing...").

However Darwin has been widely misinterpreted in ways that have thrown up damaging ideas about change. The most simplistic, and entirely erroneous, of these misinterpretations is the Social Darwinism that supposes evolution amounts to 'the survival of the fittest' and justifies colonialism and racism. Interestingly, this involves the same elision of means and end that I drew attention to above. The process through which evolution favours those who are most 'fit', which is to say no more than those whom circumstances permit to thrive, becomes confused with an ultimate outcome, as if nature had a purpose and that purpose was to select the 'fittest' in the sense of those most vigorous and ruthless. (In fact evolution equally selects parasites, and the human child which survives many years of vulnerability precisely by being vulnerable and thus appealing to adults' protective instincts.)

Darwin was uncomfortable with the phrase 'survival of the fittest', though he used it in Chap. 4 of *Origin* and the book's subtitle, *The Preservation of Favoured Races in the Struggle for Life*, lent itself to misinterpretation. He reminded himself in a notebook never to write of 'higher' or 'lower' species. He did not suppose that evolution invariably moves in the direction of perfection, famously writing "What a book a devil's chaplain might write on the clumsy, wasteful, blundering low and horridly cruel works of nature!" (Letter to J.D. Hooker, 13 July 1856). His last major publication was on the humble (as we might think of it) earthworm: *The*

¹ It also leads to conceiving educational change as a matter of using data to identify teachers who have achieved good results, analysing how they have done it, and then sharing this with others: the approach recommended by the American Doug Lemov in his book, *Teach Like a Champion*, and adopted by the UK Teach First programme.

Formation of Vegetable Mould, Through the Action of Worms (1881). There have been recent and persuasive attempts to argue that so far from persuading us towards a mechanistic view of the natural world and playing a part in 'unweaving the rainbow' (the phrase is Keats's, from Lamia) Darwin can be read as a romantic, for whom the world of nature is enchanted and who re-enchants it for us:

Darwin is stunned by the extraordinary variety and beauty of what he sees ... the concordance to the first edition of the *Origin* lists twenty-nine entries for variations on the word 'beauty', forty-two for 'wonderful', and fifteen for 'marvellous'. Perhaps equally important for the overall effect of the prose, there are fifty-seven 'unknowns'. That so much is unknown and yet to be discovered only increases the sense of marvel and wonder. (Levine 2006, p. 243)

Above all, it is hard to read Darwin without the sense that for him the exuberant and constantly changing natural world is a delight. At the very end of the *Origin* he writes that there is 'grandeur' in the evolutionary view of life, "and that, whilst this planet has gone circling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being evolved". What Darwin gives us, then, is not just a theory but a vision of change, one capable of enriching and bringing a response from the imagination. It is as far from Social Darwinism's picture of change as it is from that offered by recent literature on change as a controlled and managed process.

VI

In Ovid's Metamorphoses Actaeon is changed into a stag by the goddess Diana as punishment for having watched her bathing naked. Her dogs then tear him to pieces. The warrior Ajax, failing to win the arms and armour of the dead Achilles in competition with Ulysses, plunges his sword into his own breast. From the turf onto which his blood has fallen there grows a hyacinth, whose petals bear marks resembling the letters that in Greek spell both Ajax's name and his cry of woe: AIAI. An elderly couple, Baucis and Philemon, shuffle around their cottage preparing a simple meal for their visitors, not realising they are Jupiter and Mercury in disguise. The gods reward them for their hospitality and simplicity of heart. Revealing their identity, they ask the old couple what they most desire. Baucis and Philemon ask to die together at the same moment, as they have lived happily together for so long and neither could bear to live without the other. Their wish is granted. The cottage is turned into a gold-roofed temple, of which the old people are to be the guardians. Eventually the day comes when, worn out by age, they are turned into two trees growing side by side from the same trunk. From Ovid, Metamophoses VIII, 714–19 (my translation):

Now Baucis saw Philemon growing leaves, Philemon noticed Baucis do the same; And as the tree-top's canopy began To grow over their faces, both at once While they still could, cried "Oh, my dear, goodbye!" Just as the bark became, and hid, their lips.

It is easy to read these stories as charming fairy-tales linked by the theme of transformation. But Ovid is also giving his readers a new way of imagining change. The *Metamorphoses* were written at a time when Republic had recently become Empire: nostalgia was now politically dangerous. Does Ovid offer his readers the possibility of thinking about change in what might be called a more progressive sense? Another interpretation is that there is something quietly subversive in taking such a theme, treating it lightheartedly, and attributing transformations to the gods. For, as everyone knew, they were the rightful work of the Emperor Augustus and his senior management of change team. It is always dangerous to speak to power about how whatever goes against the authorised view of what is normal does not have to be treated as pathological or deviant. Ovid completed the *Metamorphoses* in AD 8; in the same year he was exiled to Tomi on the Black Sea, on the sole authority of Augustus, dying there 9 years later. Ovid himself attributed his fall to *carmen et error*, a poem and a mistake. Scholars continue to puzzle over quite what the poem and the mistake were.

References

Darwin, C. (1856). Letter to J.D. Hooker. http://www.darwinproject.ac.uk/letter/entry-1924. Accessed 30 Jan 2015.

Darwin, C. (1902). On the origin of species by means of natural selection. London: Grant Richards.

Dent, J. M. Thucydides (Late 5th century BCE/1903) *History of the Peloponnesian*, (R. Crawley, Trans.). London.

Fullan, M. (2007). The new meaning of educational change (3rd ed.). New York: Teachers College Press

Hargreaves, A. (2000). Editor-in-Chief's introduction: Representing educational change. *Journal of Educational Change*, 1, 1–3.

Hughes, T. (1997). Tales from Ovid. London: Faber and Faber.

Joyce, B., & Calhoun, E. (1991). Review: The new meaning of educational change. School Effectiveness and School Improvement, 2(4), 336–343.

Levine, G. (2006). Darwin loves you. Natural selection and the re-enchantment of the world. Princeton/Oxford: Princeton University Press.

Lieberman, A., & Miller, L. (1999). *Teachers – Transforming their world and their work*. New York: Teachers College Press.

Monbiot, G. (2014). 'Cleansing the stock' and other ways of governments talk about human. http://www.theguardian.com/commentisfree/2014/oct/21/cleansing-stock-doublespeak-people-killing

Sergiovanni, T. (2000). Changing change: Towards a design science and art. *Journal of Educational Change*, 1, 57–75.

University of Warwick Council Minutes: Google 'University of Warwick Council Minutes, 15 May 2013 immediate headcount reduction'. Accessed 30 Jan 2015.

Chapter 4 How Is It Possible to Make a Difference? Agency, Actors, and Affect as Discourses of Change in Education Research

Lynn Fendler

Educational research is shaped by assumptions about how it is possible to make a difference in the world. In educational policy there are debates about the relative effectiveness of top-down and bottom-up approaches to implementing educational reforms. Recent history has provided us with a long series of policy initiatives advocating teacher-led, evidence-based, Professional Learning Communities, and partnership-building school-improvement campaigns. This paper is also about how to make a difference, but it is not about the formation of educational policy or the means for school improvement. Rather, it is an investigation into theoretical assumptions that underlie research designs and interpretations of educational research. Philosophically speaking, the issue I am investigating is affiliated with classical debates about determinism and free will. Historically speaking, the issue reflects a concern with issues of historiographical continuity and discontinuity for explaining change across time. The stance adopted in this paper is perhaps most closely aligned with Heraclitus' observation: "It is both possible and impossible to step into the same river twice."

All social theories rely on assumptions – and some even make claims – about how it is possible to make a difference, just as educational researchers make implicit and explicit appeals to social theories for framing problems and designing research projects. Various theories of change occur in conjunction with a range of historically specific circumstances that may include economic, cultural, technological, religious, and political fashions. In this paper I describe three of those discourses that have been mobilized in educational research for thinking about

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¹ There seems to be ongoing scholarly debate about the precise wording of the original Heraclitus quotation.

30 L. Fendler

how to change is possible: agency, actors, and affect. For each of these discourses, I summarize a robust version of the theory, and examine its respective implications for discourses of change and changes of discourse in educational research.

4.1 Agency: Explaining Change in the Tradition of Critical Theory

Men make history, but they do not make it just as they please. (Karl Marx)

The approach to agency that is most usual in critical theories of education is derived from the political theories of Karl Marx (although many would argue that contemporary critical theories of agency have nothing to do with Marxism). Agency is typically cast in dialectical opposition to structure, but sometimes also in relation to functionalism or determinism. Some extreme forms of liberalism hold that agency determines everything; some extreme forms of Marxism hold that structure determines everything; Giddens' theory of structuration puts forward a structure-agency loop.

As the counterpart to agency, structure has been construed as both prison and salvation: as the opposite of freedom (e.g., Weber's 'iron cage'), or as the only hope for human civilization (e.g., Hobbes or Marx's 'prelude to utopia'). Talcott Parsons' notion of equilibrium (between agency and structure) rendered his theory incapable of explaining any change at all. Accordingly, agency has been employed extensively as a framework in social theory for explaining how it is possible to make a difference, for better or worse. This part of the paper will summarize critical theory assumptions about agency, and analyze the implications for educational discourse about how it is possible to make a difference.

In critical theories of educational research, the concept of agency is discursively embedded in discourses of sociology, and tends to emphasize collective agency rather than individual agency. The sociological/collective approach contrasts with both philosophical and psychological theorizations of agency, which generally construe agency in more individual terms. In philosophy, primary attention has been devoted to moral agency, which tends to be linked to responsibility and sometimes also with autonomy, as in an individual's capacity to act in a moral way. In psychology, Bratman (2007) theorized agency as an individualized form of self-governance, and Bandura's (2001) theorization of agency offered critical alternatives to recent trends in social psychology that construe agency in purely cognitive terms, or that construct human capacities as being determined by genetics or upbringing. Both philosophical and psychological theorizations of agency are generally more interested in the capacities of individuals to act than in collective or aggregate notions of agency.

The version of agency that is taken up in most critical theories of educational research is more closely aligned with sociology than with psychology or philosophy insofar as agency in critical theory is generally understood in its collective form.

Collective agency aligns with solidarity approaches to empowerment in which action by collective entities is assumed to have the capacity to make a difference – agency – in social situations of unequal access to power and resources. In the case of collective agency, the individual's capacity to make a difference may be contingent upon participation in a collective effort.

4.1.1 The Dialectic of Agency and Structure

Critical theories in educational research since those of the Frankfurt Schools have argued that change is possible when human agents resist the progressive encroachment of – or colonization by – instrumental reasoning into the life world. In an example that comes from educational theory we can see how agency is usually construed in dialectic relationship to structure:

[Cultural production] provides a direction for understanding how human agency operates under powerful structural constraints. Through the production of cultural forms, created within the structural constraints of sites such as schools, subjectivities form and agency develops. These are the processes we seek to evoke with our phrase, 'the cultural production of the educated person.' Indeed, the very ambiguity of the phrase operates to index the dialectic of structure and agency. For while the educated person is culturally produced in definite sites, the educated person also culturally produces cultural forms. (Levinson and Holland 1996, p. 14)

Here agency and structure are set in dialectical opposition. As is typical of most critical theory in educational research, agency is construed as a good thing. The dialectic of structure and agency operates a priori; theoretically speaking, the entities exist regardless of historical circumstances. The assumption of agency-assalvation rhetorically serves as the reason for hope and the possibility for change when it resists dominant or hegemonic social, cultural, political, and economic forces. In short, assumptions of agency have served as the linchpin in much educational research to explain how the existing social order might be changed for the better.

Agency is understood as a force for good when it is found that structure (or ideology) sustains injustice or exploitation. For example, Frankfurt School analyses refused to grant the possibility that the humanist subject could be completely dominated by structural injustice. Frankfurt School discourse maintains that the humanist capacity for agency was ultimately indomitable, even in the face of powerful forces of instrumental reasoning that threatened to prevail. For example, in his appeal to 'subjective, private reflection,' Adorno (1978) insisted that an individual capable of authentic reflection had agency. 'Aesthetic experience' was theorized as separate from and capable of resisting the domination of instrumental reasoning. If structural forces were dominated by instrumental reasoning, then it was appropriate for Frankfurt School theorists to appeal ultimately to aesthetic

32 L. Fendler

sensibilities as the impetus to effect change. This theoretical position is based on a priori autonomous agency, in which an 'authentic' subject must be first assumed in order to provide a theoretical mechanism for escaping the total domination by instrumental reasoning over the life world.

Jürgen Habermas, grandchild of the Frankfurt School, recognized a problem in assuming an a priori agent (e.g. Where did it come from?) and opted (in a move which some have argued is reminiscent of German idealism) to write agency into the text, i.e., to construct a (semi-) autonomous agent in terms of discourse. In Habermassian theory, the agent is created (semi-) autonomous through the production of critical discourse in 'communicative rationality.' Agency, for Habermas then, entails the capacity to engage in moral dialogue, and agency is asserted explicitly in discourse.

Critical theories in education generally follow Habermas, asserting explicitly that there is a (semi)autonomous agent, and this assertion-in-language itself constitutes the possibility for agency in the face of domination:

[P]ostcolonial discourse agrees that the speaking subject must be decentered but does not mean that all notions of human agency and social change must be dismissed. Understood in these terms, the postmodernist notion of the subject must be accepted and modified in order to extend rather than erase the possibility for enabling human agency. (Giroux 1992, p. 27)

As Giroux's quotation suggests, even critical theories that are sympathetic to postmodern sensibilities still may feel compelled to write the possibility of agency into the text as a means of intellectual engagement in the possibilities for making a difference, ostensibly in the direction of democracy and empowerment. When this explicit assertion of agency in discourse is omitted, then the theory is frequently read as 'denying agency' or 'nihilistic.'

In sum, educational research in the tradition of critical theory appeals to agency in the context of structure tend to acknowledge modern collective forms of social power, and at the same time, provide a theoretical account of possibilities for people – individually and/or collectively – to make a difference. Adorno did this by assuming an individual capable of aesthetic experience and meaningful reflection; Habermas did this by discursively constructing an autonomous subject in communicative action with others in the world. An assumption of agency is sustained when social theories in educational research assume a structure-versus-agency dualism, and describe agency as the hopeful potential for people to overcome detrimental forces of social domination.

4.1.2 Historicizing Agency

Across the disciplines of philosophy, psychology, and sociology, the definition of agency remains more or less consistent; it refers to the capacity of a person or group of people to act independently. The prevailing definition reflects modern impulses

toward rational self-determination, self-efficacy, and willful action. Theories of agency convey and perpetuate a modern historical ethos in which people are not comforted by the belief that their lives are in God's hands.

Agency as the explanation for change is also aligned with modern labor movements and other political stances in which the possibility for making a difference is facilitated by solidarity and unified or coordinated action. In their tendency to describe social life in terms of groups of people, critical theories of agency reflect demographic categories of the modern social sciences in which it becomes possible for people to 'identify' themselves as members of a sociologically defined collective. It is by means of identification with a collective, then, that agency becomes possible for individuals.

4.1.3 Implications of Theorizing Change Through Agency

In the tradition of the Frankfurt School, agency is an a priori, a historical, abstract concept. In attributing change to agency, we appeal to an abstract concept. When agency is mobilized in research as the explanation for change, then it becomes necessary to buy into a two-tiered (structuralist) system of reality, *parole* and *langue*: the layer of chaos on the surface, and the analytically tidied underlying structure. Theories of agency in the tradition of the Frankfurt School (including Habermas) are structuralist; they are not focused on *parole* – the messy sensible surface of things in the world. Rather, they examine the abstract and rule-governed layer of *langue*. We can understand change only by creating (by inference and/or ideology) a dialectical relationship between agency and structure. In critical theories of agency, 'scientific' research usually refers to the study of abstractions. One implication is that critical theories of agency expand what is possible to regard as the objects of scientific research; the objects of scientific research in structuralist studies are abstract formal concepts, which are assumed to represent perceptible objects in the world.

Agency in critical theory is positioned in a particular dialectical relationship to structure in a way that sometimes makes it difficult for me to figure out why some acts of power are labeled 'domination' and other acts of power are labeled 'agency.' This feature of agency in critical theory also has implications for assumptions and interpretations in research about who can act and who is acted upon. Generally speaking, critical theory conceptualizations of agency circumscribe possibilities for making a difference within the dichotomous relation of agency to structure. When structure is understood in terms of dominant ideologies, then agency – in an abstract sense – becomes the explanation for change. In such cases, many acts which appear to have no relation one way or the other to dominant ideologies may not be characterized as examples of agency.

34 L. Fendler

4.2 Actors: Explaining Change Through Latour's Actor Network Theory

Agency is about the most difficult problem there is in philosophy. (Bruno Latour 2007 (p. 51))

Actors make a difference in Bruno Latour's (2007) Actor Network Theory. ANT differs from critical theory frameworks in that for ANT, there is no assumed dialectical relationship between structure and agency. ANT stipulates a difference between actors (which act) and actants (which are acted upon), but both actors and actants can be either human or nonhuman. Moreover, for ANT, agency can be detected only in retrospect. Rather than attributing the possibility for change to agency, Actor Network Theory explains change in terms of associations in networks of human and nonhuman actors. In this way, the assumed patterns of freedom and determination are different from structure-agency patterns.

In his 2007 book *Reassembling the Social*, Bruno Latour advanced a theoretical framework that reconfigures how it is possible to think about making a difference. Latour jettisoned previous conceptualizations of structure and agency, and advanced instead a theory of 'actor networks.' In order to understand Actor Network Theory (ANT), Latour warns that we must reject previous theoretical frameworks: "Be prepared to cast off agency, structure, psyche, time, and space along with every other philosophical and anthropological category, no matter how deeply rooted in common sense they may appear to be" (Latour 2007, pp. 24–25).

Theoretically, Latour's ANT displaces the dialectic of structure and agency. In place of an abstract notion of agency as an explanation for change, ANT suggests networks or assemblages of associations involving an indeterminate number of 'actants.' In his critique of the structure/agency dialectic, Latour (2007) has written: "This is what has so confused the debates among the various schools of social sciences: they have insisted too much on which agency to choose and not enough on how each of them was supposed to act" (p. 58). "ANT doesn't claim that we will ever know if society is 'really' made of small individual calculative agents or of huge macroactors" (Latour 2007, p. 30).

ANT does not ask whether change can be attributed to agents or structures, but rather ANT asks about *how things act*: "When a force manipulates another, it does not mean that it is a cause generating effects; it can also be an occasion for other things to start acting" (Latour 2007, p. 59). The questions for an ANT study are:

- · Which agencies are invoked?
- Which figurations are they endowed with?
- Through which mode of action are they engaged?
- Are we talking about causes and their intermediaries or about a concatenation of mediators? (Latour 2007, p. 62)

Relative to most critical theory frameworks, ANT takes a more historical and empirically grounded approach to explaining possibilities for making a difference.

In ANT, changes can be attributed to associations, but there are no fixed or a priori associations. For Latour, associations can only be traced retroactively, for example:

A new vaccine is being marketed, a new job description is offered, a new political movement is being created, a new planetary system is discovered, a new law is voted, a new catastrophe occurs. In each instance, we have to reshuffle our conceptions of what was associated together because the previous definition has been made somewhat irrelevant. (Latour 2007, p. 6)

For understanding how it is possible to make a difference, ANT rejects an a priori notion of agency that is construed in dialectical relationship with structure. ANT distinguishes actors and actants from agencies, any of which can be human or non-human. According to Latour, agencies:

- · do something
- can assume different sorts of figurations from abstract ('the System') to concrete ('my sister').
- are often misrecognized by actants (through epistemological assimilation)
- are theorized in various ways by different actants (list paraphrased from Latour 2007, pp. 52–58).

4.2.1 Historicizing ANT

Compared to critical theories of agency, Latour's ANT disperses and multiplies the potential sources of change from one to many, and extends the possibility of agency to include non-humans:

[W]e have just seen that the most powerful insight of social sciences is that other agencies over which we have no control make us do things. . . . [W]e will have many occasions to see how action is distributed among agents, very few of whom look like humans. (Latour 2007, p. 50)

ANT departs from critical theories of agency in ways that are reminiscent of the way Gramsci's hegemony (a dispersion of powerful forces) departs from previous theories of domination, which tend to describe power in more monolithic terms. That is, both hegemony and ANT reject explanations that explain change as a product of a single unified force (e.g., instrumental reasoning), and propose instead that change is effected through a networked system of various entities:

[T]he key question for a social science is to decide whether it tries to deduce from a few causes as many of the effects that were there 'in potentia', or whether it tries to replace as many causes as possible by a series of actors – such is the technical meaning that the word 'network' will later take. (Latour 2007, p. 59)

ANT differs from critical theories of agency in other important ways, too. For one thing, possibilities for making a difference in ANT do not conform to any coherent or logical patterns: "there exist many contradictory ways for actors to be

given an identity" (Latour 2007, p. 26). ANT also subscribes to more historically variable and discursively constructed epistemological principles: "about the type of studies done under the label of a science of the social as it is never clear in which precise sense social sciences can be said to be empirical" (Latour 2007, p. 26). In these ways, ANT expresses Latour's longtime stance that "we have never been modern" (Latour 1993), and distances his theories of change from those of critical theorists.

Actor Network Theory may be seen as an attempt to account for recent developments in the multiplication and rearrangement of global and technological entities (e.g., globalization of culture, international economics, transnational manufacturing, multidimensional virtual worlds). I surmise that in his Actor Network Theory, Latour may have been trying (among other things) to work out how to account for the ways in which 'the Internet' exerts some kinds of agentic force in the social world. The Internet may be paradigmatic for ANT, embodying as it does a network of multiple 'assemblages' and 'associations.' Moreover, the style or register of writing in ANT research tends to resemble blogging more than conventional tier-one journal texts. As Latour has written, "I am going to define the social not as a special domain, a specific realm, or a particular sort of thing, but only as a very peculiar movement of re-association and reassembling" (Latour 2007, p. 7).

4.2.2 Implications of ANT for Theorizing Change

In Latour's poststructural ANT, there is no separation of *langue* and *parole*, and no structuralist focus on the study of *langue* in the name of science. Because structuralist distinctions have been jettisoned, the definition of material or materiality in ANT is unlike that of structuralism. This is important when we think about the degree to which it is possible for material or concrete things to make a difference in the world. For Latour, 'concreteness' is not a feature of a particular quality of materiality, and it is not the case that some entities are concrete while other entities are abstract. Rather, for ANT, concreteness is a function of the number of mediaries that are perceived between cause and effect; the more mediaries, the more concrete the study (Latour 2007, esp. pp. 60–61).

In ANT we can speak about something as being concrete when we pay attention to and account for sequences of tiny events, which Latour calls 'translations.' I think of Latour's concreteness in terms of choosing a very small grain size for a study. For example, a prominent contributor to Actor Network Theory, Callon (1999) used 'a sociology of translation' to explain changes in the domestication of scallops. By studying the production of scientific knowledge and fishing practices, Callon identified a network of three actors that participated in this particular change: the fishermen, scientific researchers, and the scallops themselves. Moments of translation in the production of these new scallop-cultivation methods include

many moments of exchange of information and conversations between researchers and fishermen. Here is an example of the level of detail in an ANT study:

The three researchers are inspired by a technique that had been invented by the Japanese. Towlines made up of collectors are immersed in the sea. Each collector carries a fine-netted bag containing support for the anchorage of the larvae. These bags make it possible to assure the free flow of water and larvae while preventing the young scallops from escaping... [T]hese *interessment* devices extend and materialize the hypothesis made by the researchers concerning the scallops and the larvae. (Callon 1999, pp. 72–73).

But the fishermen and the researchers are not the only actors networked in this study. In ANT, the scallops themselves are also actors because the fishermen and scientists had to adjust their actions in response to what the scallops did. The scallops acted to change the behaviors and thoughts of the fishermen and the researchers:

If the scallops are to be enrolled, they must first be willing to anchor themselves to the collectors. But this anchorage is not easy to achieve. The ... researchers will have to lead their longest and most difficult negotiations with the scallops. (Callon 1999, p. 74)

The point of this example is to show that by using ANT, discourses of change invite us to investigate a series of many tiny events in history that constitute translations as actors – human and non-human – influence each others' actions. For ANT, change is not predictable, not centralized, not coordinated, and not monolithic; rather, change occurs again and again in small and – taken individually – seemingly insignificant increments. By using ANT, we can explain big changes in discourse as an accumulation of myriad micro-translations along the way.

When we use ANT to explain change, we have at our disposal a great many more sites of potential change in which all sorts of entities might participate in making a difference one way or the other. Moreover, in ANT, it is not the case that some entities have the categorical capacity to act while other entities are acted upon. Finally, with ANT, researchers have the possibility to attribute change to non-human entities, and to produce historical narratives of change that include many changes of direction, fits and starts, aborted efforts, and serendipitous results of interactions.

4.3 Affect: Explaining Change in Terms of Non-representational Theory

Affect is aroused when a tendency to respond is inhibited. (Meyer 1956, p. 14)

Affect is a term from non-representational theory in cultural geography. Rejecting both structure/agency and actor networks, non-representational theories of affect require that we jettison all previous classification systems that may imply structures or impose differences between actors and actants. Non-representational theories consider the widest possible set of entities as having the capacity to make a difference, which may include people, objects, atmospheres, feelings, tones of

38 L. Fendler

voice, ambient noise, machinery, Leffe Blonde, and constitutional law (see, e.g., Kitchin and Thrift 2009). This portion of the paper will attempt to perform the sort of difference affect presents.

Non-representational theories have been developed since the mid-1990s by geographers in the U.K. in response to the multiplication of phenomena and spatial relationships in the twenty-first century. Patchett (2010) characterizes non-representational theory as having "a heightened sensitivity to the fleshy realities of the human body" (online version). Cartography, a branch of traditional geography, strives to get a handle on spatial relationships by representing the world through mapping and/or projection. Non-representational theory is a branch of newer approaches to cultural geography that strive to get a handle on the dynamics of spatial relationships not by *re*presenting them, but rather by presenting them (Cadman 2009). In this case, 'present' connotes spatial and temporal proximity and availability in which everything you can imagine can be present on the same 'plane of immanence.'

One of the key terms in non-representational theory is *affect* (Anderson 2006; Anderson and Harrison 2010). In non-representational theories, the word affect embodies the full range of semiotic inflections of its various forms: affected, affectation, affectionate, affect/affect, and affectable. Because NRT has revitalized and recontextualized the term, the current discourse of affect provides an alternative framework for thinking about how it is possible to make a difference.

4.3.1 Affect Is Not the Same as Emotion

In much educational research (other than non-representational theory), affect is treated as synonymous with emotion (see, e.g., Lawler 2001; Thrift 2008). Since 1920, the use of the term affect has increased, and the use of the term emotion has decreased. In non-representational theory, affect is distinguished from emotion. For NRT, affect refers to what happens the moment the human body encounters something in the world. Affect may play a part in generating emotions, but emotions are mediated by many forces that do not mediate affect. Dewsbury (2009) suggests that there are four different modes for thinking about affect: affect as a material phenomenon, affect as a force, affect as a theory, and affect as a mode of expression. As a phenomenon, affect is understood to be "the medium by which the body relates to the materiality of the world" (Dewsbury 2009, p. 21). There seems to be some effort in NRT to name something that is pre-emotional and a-rational. Dewsbury (2009) calls affect a "moment of intuitive comprehension" (p. 20):

Affect is at once an actual phenomenon and a virtual force, a material effect and an immaterial disposition. As a conception, it pairs dangerously close to our understanding of emotion and therefore exists as something familiar and seemingly knowable despite not having objective tangibility. (Dewsbury 2009, p. 20)

In non-representational theory, the bodily involvement in affect is described in terms of a particular kind of experience. Non-representational theorists draw from Dewey's and Peirce's philosophies of experience in order to theorize its somatic aspects. McCormack (2014) draws on the work of Belgian philosopher Isabelle Stengers to forge a connection between experience and experiment:

The verb 'to experiment' is ... used in a sense akin to 'to experience', that is, without 'on' or 'with', which would induce the idea of a separation between the experimenter and what she is experimenting on or with. It is thus a (French inspired) neologism meant to signal a practice of active, open, demanding attention paid to the experience as we experience it. For instance, a cook would be said to experiment the taste of a new dish. In French, there is no clear distinction between the terms 'experience' and 'experiment' as there is in English. This neologism, ... signals Whitehead's particular empiricist stance that philosophy exhibits experience as experiment and vice versa. (Stengers, 2008, p. 109, fn.1)

4.3.2 Historicizing Affect

One way to historicize the circulation of affect is to connect its premises with the discourse of emergent systems that pervade theories of computer science:

In emergent systems, once a stable equilibrium emerges in a given system, perturbations must come from outside the system in order to produce certain kinds of observable change. The Game of Life won't do anything new after a certain point if someone doesn't come and make it do something new. (Swarthmore n.d. online version)

Another aspect historicizing NRT is topical research trends in materiality and spatial relations. In addition to the field of cultural geography, affect is a major concept now in scientific and philosophical research. For example, there is a Centre for Affective Sciences in Geneva that claims, "affective phenomena are complex episodes in human behavior and experience, thoroughly integrated into a social and cultural context, that require study from different research perspectives" (Centre for Affective Sciences). There is a scientific journal called *Affect*, and the use of the term affect in publications increased greatly from 1940 to 2000.

Finally, theories of affect have arisen in conjunction with attempts to explain computer-based phenomena such as viral circulations and memes. With new technological and social media venues come new styles and paces of interaction that can be difficult to engage using theories that were developed to account for change in the industrial age.

4.3.3 High-Def Resolution Without Autopilot

If I approach the question of change from the perspective of affect in non-representational theory, then I must look differently not only at what the previous social theories say and imply about change, but I must also look at how 40 L. Fendler

the respective theories *affect* change: In what ways do tropes in research texts exemplify how changes are made? In what ways am I affected? What affects are presented in/by the research? In this section, for example, I am faced with complex questions about how to present non-representational theory relative to previous theories of agency and Actor Network Theory. For one thing, if I am going to engage faithfully with non-representational theorizing, then I have to change my style of writing in this section. I actually have to become more personally present in the writing. If I were to write in the same style or register as I have done in the previous two sections, then I would be presenting a reduced and misleading treatment of non-representational theory. For what it's worth, the effect of affect on my writing was one of the first changes of discourse I noticed in my own writing soon after I began working in non-representational theories.

The two aspects in which non-representational theories of affect depart most dramatically from agency and actors are the shift from low-def to high-def resolution, and the disabling of autopilot functions. That means non-representational theory effects changes on epistemological levels that are fairly unusual for academic research. According to Dewsbury (2009), "affect seriously disorientates the modes by which we make academic accounts of the world" (p. 20). In the following sections I use analogies from technology to present these two implications for theorizing change through affect.

High Definition Non-representational theories operate in high definition, especially compared to theories in most other kinds of educational research. To appreciate the difference in terms of affect, we might recall our experiences viewing video at the image resolution of 720 by 480 (i.e., width pixels x height pixels) and then compare our experience to viewing images at 1080×1920 . Higher image resolution affects us differently; our experience of definition changes in ways that are hard to put into words, and yet those experiences are perceptible and sharable. The way high definition viewing affects us has some bearing on the kinds of differences that non-representational theory presents for us.

Happily, the technical specifications of image resolution are multidimensional. Resolution can be measured and compared in terms of pixels, lines, colors, and time. Also, there are different phases that influence resolution and our experience of resolution: at the moment of image capture, during export to other devices, and at the site of projection and eventual viewing. These multidimensional and multiphase aspects of resolution provide a helpful analogy for imagining how affect functions as a concept for thinking about how to make a difference. We can think about affect in these multidimensional and multi-phase ways. In that way, non-representational theories allow researchers to express affective change in terms of definition and resolution, thereby grounding the discourse of research more intimately in human experience. With high-definition resolution, I can make visible my own feelings at the time of writing without violating the expository argument of this paper. My feelings and the expository argument of this paper – along with your experience reading it now – are all present in high definition

because all of those entities are eligible for inclusion on the same plane of immanence.

Most theories for research prefer to look at the forest rather than the trees; they encourage us to reduce data and/or to sacrifice specificity in favor of generalization. However, the impulses in nonrepresentational theory put forest and trees on the same plane. Rather than zooming out to get the Big Picture, non-representational theories intensify resolution at all focal distances simultaneously. Certainly educational research has been conducted at a wide range of grain sizes from miniscule to grand. High resolution per se is not new. However, I think there are two unusual qualities of high-definition resolution in non-representational theory. First, because non-representational theory presents everything on the same plane of immanence, the high-def resolution occurs at all focal levels simultaneously; nothing is necessarily out of focus. Second, it is unusual for research theories to pay attention to the affective impact of high resolution on our experience of reading and writing research.

Disabling Autopilot During the twentieth century, much innovation was focused on rationalizing and regularizing processes of production, including manufacturing, schooling, and infrastructure. For a long time, the goal was to delegate as much labor as possible to machines so that the world could run on autopilot. It does not take much imagination to conjure up sci-fi images of humans operating in the world like so many pre-programmed robots. Maybe that's part of the immense and freakish popularity of zombies in popular culture these days. Analogously – I would say – the production of academic research usually runs on autopilot. Much scientific research (in education and elsewhere) is utterly formulaic; in fact, formulaic presentations of research reports are highly valued in most academic publishing venues, and they are valued because they are formulaic. Analyses of even qualitative data are executed through algorithms (e.g., NVivo, Dedoose). In that way, research discourses have become further abstracted and further removed from lived experience.

For me, the metaphor that works best to convey non-representational approaches to research is to say that a focus on affect is the opposite of running on autopilot. Working within non-representational theory, I will take note when the research experiences – reading and writing – affect me in ways that are stultifying and dehumanizing. I will not feel inclined to censor the affective component of my experiences reading and writing research. Formulaic research reports begin to feel as vacuous as formulaic Hollywood films, and that matters.

4.3.4 Wait for It...

Following from Meyer's (1956) theory of affect in music, another aspect of our experiences with research come into relief. Meyer's quotation refers to the emotional power of, say Brahms' *Eine Deutsche Requiem*, in which tremendous

42 L. Fendler

thrilling suspense is generated when the piece goes on for nearly an entire movement before the cadences resolve to a tonic chord in root position. It is this masterful creation of suspense that allows Brahms' music – along with a large body of excellent drama and literature – to have such a powerful impact on us – in other words, to make a profound change. Without the build-up of suspense, the capacity for affect is diminished.

Great researchers are also driven by similar feelings of excitement and suspense – What will happen next?! – in the process of trying to solve puzzles of the universe. However, what a difference there is when we compare a researcher's passionate drive to solve a mystery with the formulaic, censored, depersonalized, dry and tedious research reports that are often generated from those otherwise invigorating research adventures.

I have never heard of a research-writing manual that offers suggestions for building anticipation throughout a research report so that by the conclusion, the readers can hardly wait to hear the results. I have never encountered a set of review criteria for a conference or a journal in which one of the preferred qualities of research is an assessment of the manuscript's capacity to generate suspense, which would then create affect, which would then make a difference for the person reading it.

4.3.5 Implications of Non-representational Theory for Explaining Change

Compared to critical theories of agency, Latour's ANT multiplied the number of sites in which it is possible to make a difference. Compared to ANT, non-representational theories of affect multiply the number of possible sites yet again, and exponentially. By presenting everything in the world on the same plane of immanence, non-representational theories generate an infinite number of relationships, all of which are potential sites of affect and change.

More importantly, however, non-representational theories depart from both agency and ANT when the warrant for labeling something as 'change' includes not only objects in the world, but also subjective states, and anything else. In NRT, it is perfectly legitimate to jump epistemological levels that would have been discrete in other theories. That is, in non-representational theory, it is possible to attribute change to any object in the universe; it is also possible to attribute change to any subjective state in the universe, or to anything else. In other words, non-representational theory asserts that aesthetic grounds are just as good as rational or mechanistic grounds for assigning responsibility for change as long as the chosen grounds bring experience into presence.

Non-representational theories deal with the empirical world as directly as possible, but they reject both positivism and objectivism. Rather than making research claims about what *is* or what *was* ('Wie es eigentlich gewesen')

non-representational research projects are formulated according to judgments that are more like literature or art than like positivistic science. In this way, non-representational theory in research offers us the potential to explain and to perform the kinds of changes that art makes in the world.

References

- Adorno, T. (1978). Minima moralia: Reflections from damaged life (E. F. N. Jephcott, Trans.). London: Verso.
- Anderson, B. (2006). Becoming and being hopeful: Towards a theory of affect. *Environment and Planning D: Society and Space*, 24(5), 733–752.
- Anderson, B., & Harrison, P. (2010). The promise of non-representational theories. In B. Anderson & P. Harrison (Eds.), *Taking-place: Non-representational theories and geography* (pp. 1–34). London: Ashgate Publishing.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. Annual Review of Psychology, 52, 1–26.
- Bratman, M. (2007). Structures of agency. Oxford: Oxford University Press.
- Cadman, L. (2009). Non-representational theory/non-representational geographies. In R. Kitchin & N. Thrift (Eds.), *International encyclopedia of human geography* (pp. 456–463). Amsterdam: Elsevier.
- Callon, M. (1999). Some elements of a sociology of translation: Domestication of the science and the fishermen of St. Brieuc Bay. In M. Biagioli (Ed.), *The science studies reader* (pp. 67–83). New York: Routledge.
- Centre for Affective Sciences. http://www.affective-sciences.org/content/research.
- Dewsbury, J. D. (2009). Affect. In R. Kitchin & N. Thrift (Eds.), *International encyclopedia of human geography* (pp. 20–24). Amsterdam: Elsevier.
- Giroux, H. A. (1992). Border crossings: Cultural workers and the politics of education. New York: Routledge.
- Kitchin, R., & Thrift, N. (2009). *International encyclopedia of human geography*. Amsterdam: Elsevier.
- Latour, B. (1993). We have never been modern. Cambridge, MA: Harvard University Press.
- Latour, B. (2007). Reassembling the social: An introduction to actor-network-theory. Oxford: Oxford University Press.
- Lawler, E. J. (2001). An affect theory of social exchange. The American Journal of Sociology, 107 (2), 321–352.
- Levinson, B. A., & Holland, D. C. (1996). Introduction. In B. A. Levinson, D. E. Foley, & D. C. Holland (Eds.), The cultural production of the educated person: Critical ethnographies of schooling and local practice. Albany: State University of New York Press.
- McCormack, D. P. (2014). Refrains for moving bodies: Experience and experiment in affective spaces. Durham: Duke University Press.
- Meyer, L. B. (1956). Emotion and meaning in music. Chicago: University of Chicago Press.
- Patchett, M. (2010). A rough guide to non-representational theory. Experimental geography in practice. Available: http://merlepatchett.wordpress.com/2010/11/12/a-rough-guide-to-non-rep resentational-theory/.
- Stengers, I. (2008). A constructivist reading of process and reality. *Theory, Culture, and Society,* 25(4), 93–109.
- Swarthmore, T. B. (n.d.). *Theories of agency*. Online version available: http://www.swarthmore.edu/SocSci/tburke1/agency.html.
- Thrift, N. (2008). Non-representational theory: Space, politics, affect. London: Routledge.

Chapter 5 'Too Busy for Thoughts': Stress, Tiredness and Finding a Home in the University

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5.1 Introduction: Research and Changes of Discourse

The ambition of the European Commission's Lisbon Strategy (2000–2010) for the EU to "become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion" has been superceded by Horizon 2020s aim "to create smart, sustainable and inclusive growth" (EU 2013). This latest work programme is part of the recasting of the European Union as the Innovation Union and has brought about a particular focus on the researcher in European policy. The 'researcher' in this context is understood here to refer to a particular subject position, the description of which echoes that of the lifelong learner, the central figure of the Lisbon Strategy; she must be entrepreneurial, adaptable, mobile, etc. But in a subtle change from the figure of the lifelong learner, I argue, for the researcher it is not sufficient to continue to accrue skills and competences. These are not of value in themselves. The researcher is subject to the demands not of learning but of innovation. New skills must be accrued, or old skills must be accrued in a different way and put to a different use to produce a measurable, useful output and create a distinctive niche (cf. Hodgson 2013).

The closer policy focus on research and innovation is seen here to indicate two changes of discourse. The first refers to the activity of the university, or research organisations more generally, and to a longer term change from speaking about *academics and scholarship*, as an assumed part of the activity of the university, to *researchers and research*, as strategic to the distinctive mission of individual higher

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 $^{^{1}\,}http://www.eurofound.europa.eu/areas/industrial relations/dictionary/definitions/lisbonstrategy. htm$

46 N. Hodgson

education institutions or research institutions. The second change relates to the first but refers to more general changes in the self-understanding of the individual today, and that is the governmental shift, referred to above, from *learning* to *research*. These are interrelated in part by the ways in which the self-understanding of the individual as someone who needs to do research is effected by means of discourses and practises of self-management deriving from psychology and related disciplines (hereafter the psy-disciplines). The shift during the last few decades from the governance of the individual in relation to the normal in the modern state to the self-governance of the individual in terms of autonomous personhood (Rose 1999, p. 90) has seen all aspects of our lives become the object of the 'generosity of expertise' of the psy-disciplines. As Rose suggests: "the expertise of subjectivity has proliferated through our experience at a 'molecular' level" (ibid., p. 92). We are asked to take personal responsibility for our mental and physical wellbeing in particular terms, with a view to minimising risk and ensuring optimal outcomes, in the form of economically valuable outputs.

While the language and practices of psychology are the most appropriate means to address certain conditions, the ways in which we are governed today in terms of an individual, psychological self-understanding not only delimits other ways of addressing issues, but makes certain aspects of our lives appear to us as 'issues' in the first place. The recourse to the language and practices of psychology in the support material for researchers, for example, is indicative of the wider psychologisation in our self-understanding and self-government (De Vos 2012). The ways in which researchers are addressed by this material provides the starting point for this analysis.

This chapter is concerned predominantly, then, with the first of these changes of discourse. The ways in which the researcher is asked to take responsibility for her professional and personal development is illustrated by the Researcher Development Framework developed by the UK organisation Vitae. The Framework breaks down the excellent researcher into four quarters of a circle, each consisting in numerous sub-sections that contain particular skills and attributes. Vitae also provides resources to help the researcher to work on these. In the Vitae guidance booklet 'The Balanced Researcher', for example, strategies are offered for managing work-life balance or identifying imbalance (Hodgson 2014). The guidance booklets provided by Vitae address the researcher who is enterprising, leading, engaging, career-wise, and creative. Such language is indicative of the ways in which the excellent researcher is constituted in terms of specific personal qualities, evidenced through skills, competencies, and outputs, in terms of which she is asked to account for herself and is thereby governed. This is illustrative of the individual skills and outputs-based governance of the researcher and of higher education more generally (see e.g. Shore and Wright 1999; Simons 2006).

² https://www.vitae.ac.uk/vitae-publications/guides-briefings-and-information/vitae-researcher-booklets

But to describe one's self in these terms is to do so in the dominant language of the 'research profile'. In everyday conversation, the researcher seems more likely to describe herself as tired, stressed, and as dissatisfied with the university (or higher education institution) in (the name of) which she works. It is not the intention here to reveal the 'real' person hidden beneath the psychologised subject or to offer an ideal account with which to compare and critique the 'researcher' as found in policy and self-management devices. Nor is the critique that is provided intended to single out the researcher as a professional who is more subject to stress, tiredness, and general dissatisfaction with conditions than others. Rather, the focus of the critique here is on the ways in which the researcher is asked to understand herself, and the discourses and practices, deriving from psychology, in terms of which she is asked to account for herself. This discourse seems to treat as weaknesses to be overcome aspects of ourselves that seem to characterise the everyday experience of being a researcher: tiredness, stress, and not feeling at home in the university. To do this, the figure of the studier is used as a means to provide critique as it is a figure characteristic of the university in its specificity and one defined in terms other than those of the dominant discourse of what it means to be a researcher today. The studier then offers a different way of responding to experiences that seem to characterise the university as it is today: namely, of tiredness, stress, and not feeling at home. In the concluding section, indications are given as to how this relates to the second change of discourse identified, that from learner to researcher as the subject position required of us all, not only those involved in research professions.

5.2 The Tired Researcher

In *On Study*, Tyson Lewis invokes Agamben's figure of the studier to reclaim study as a distinctive, educational, aspect of the university. This figure returns in an account of 'the fatigue university' in which tiredness is contrasted with exhaustion in order to explore the educational potential of this rather than addressing it as a shortcoming to be overcome to maximise learning (Lewis 2013). Tiredness today is an object of concern in the competitive, responsibilised system of which it is a symptom. That is to say, tiredness is not an indication to stop, to do nothing, to rest, to sleep, but is something to measure, to track, to improve. Just as during the working day we can employ devices to ensure that we take regular breaks³ or that track our activity levels to ensure we are doing enough and eating and drinking the right things,⁴ tracking our sleep patterns is now a common response to tiredness. These devices are accompanied by other complementary advice too – cut down on alcohol and caffeine, get some exercise, turn off your devices – but the emphasis

³ http://eyeleo.com/

⁴ https://jawbone.com/up

48 N. Hodgson

is on sleeping more efficiently and effectively: doing it better so you need to do it less.⁵

The current concern with wellbeing has been understood in governmental terms as encouraging a governance of ourselves within safe parameters of health and productivity, and as providing strategies for maintaining these parameters and for intervening when they are put at risk (Atkinson and Joyce 2011; Hodgson 2010). The booklet provided by Vitae, 'The Balanced Researcher', is an example of this. The authors ask the researcher to visualise activities on a balance, but then in a discrete box in the corner lists 'signs of imbalance': increased stress, worry and frustration, fatigue and health problems, loss of interests and motivation, isolation (Kearns and Gardiner 2008). These are the states to be avoided, the impediments to productivity, which require the researcher to seek (self-)help.

Tiredness is such a prominent feature of the university and those who work there today that it has been characterised recently as 'the fatigue university' (D'Hoest and Lewis 2015). As the use of tracking devices and sleep quality improvement practices suggests: "We cannot avoid tiredness, but, as far as possible, we are expected to avoid its limit: exhaustion. We are educated to avoid exhaustion: we are educated in how to guard some reserve of our energy despite 'getting so much out of breath'" (ibid., p. 4). While many respond to this condition of fatigue as a symptom of a more general exploitation, D'Hoest and Lewis explore the educational space opened up by fatigue, in relation to the notions of tiredness and exhaustion, drawing on Agamben and Deleuze (ibid., p. 4).

Tiredness, following Deleuze's account in 'The Exhausted', is understood in relation, in terms of an aim: "To be tired is to 'realize' some sort of potentiality in relation to certain goals, a possibility. Thus when one takes a test in order to measure skill aquisition, one is legitimately tired for one has attempted to realize a possibility" (D'Hoest and Lewis 2015, p. 7). Tiredness exists in making these choices and in relation to distinctions:

But the realization of the possible always proceeds through exclusion, because it presupposes preferences and goals that vary, forever replacing predecessors. It is these variations, these substitutions, all these exclusive disjunctions (daytime/night-time, going out/staying in...) that are tiring in the end. (Deleuze 1995, p. 3)

In tiredness there are possibilities, choices, distinctions, and it is of these that we become tired. It is also a condition which we can do something about – sleep – to produce a further outcome – not being tired: we are 'tired by something' (Deleuze 1995, p. 4).

To be exhausted is quite different. Exhausted is the translation used of Deleuze's 'épuisé', D'Hoest and Lewis write, "which comes from 'puits'; a well; 'épuiser' literally means 'dry up'" (D'Hoest and Lewis 2015, p. 8):

⁵ http://www.lifehacker.co.uk/2014/03/08/get-better-sleep-need-less-every-night

In Spanish, 'exhausted' is 'agotado', which comes from 'gota' (drop): someone who is 'agotado' has no drop left, no water reserve. 'Exhausto' is a synonym of 'agotado': 'exhausto' and 'exhausted' are built with 'ex' and 'haurire', which means 'collect, draw water (haurire) outside (ex)'. (ibid.)

Exhaustion is not a state of choices and distinctions, but of 'preferring not to', to not be oriented towards completion and outputs. D'Hoest and Lewis understand this in terms of Agamben's notion of potentiality:

a suspension of distinctions such as occurrence and non-occurrence, being and not being, in order to keep open a perpetual field of contingent possibilities. The field of contingent possibilities is the precise location of human freedom as the opposite of necessity (something must occur or not occur) and impossibility (something that occurs cannot not occur). (D'Hoest and Lewis 2015, p. 5)

Both Deleuze and Agamben illustrate this state of potentiality with the figure of Bartleby the Scrivener, who also illustrates the particular educational aspect of Agamben's thought. Studying, for Agamben, is "an 'interminable' activity that not only loses a sense of its own end but, more importantly, 'does not even desire one' (Agamben 1995, p. 64)" (Lewis 2013, p. 17): "Thus, studying emerges as a kind of im-potential state of educational being that interrupts any notion of educational 'growth' or educational 'realization' of wilful self-production..." (Lewis 2013, p. 17). Following this line, for Lewis exhaustion is the state of the studier (Lewis 2013). In distinction from the learner, for whom potential or potentiality "must be actualized over and over again through the learning of skills" (Lewis 2013, p. 5), the studier is engaged in something without end(s). The figure of the studier then is characterised by the act and experience of studying itself, not defined by any product if it. As Thomas Storme puts it:

To study means to profane learning itself. There is no determined learning outcome, nor is there a conclusion to be drawn. Like play, study cuts ties and forges new ones, mutates relations and tests variations. To study is to put the world and ourselves with it at stake by emancipating it from determinate endings and by sacrificing productivity and marketable end results. We have to write in order to find out what we are writing. *No idea but on to something*. (Storme 2014, pp. 321–322)

To study is to suspend the logic of outputs and outcomes, but to exist always in potential. This is, in Agamben's terms, potential as im-potentiality, indicating "the symbiotic relation between potential and impotential" (Lewis 2013, p. 7): it is not impotence but rather "an active capability for not-doing or not-being" (ibid.).

On this account, the researcher can indeed be said to be tired: her activity, like the learner, defined in terms of outputs and outcomes, her subjectivity defined in terms of the (measurable and manageable) qualities that produce them – excellence, innovation, mobility, leadership, etc. – and her choosing permanently to continue to do so. The studier, to use Agamben's term, is, by contrast, exhausted. She works in the name of nothing, governed only by the practices internal to it, reading, writing, and thinking. For Lewis, the focus on learning as the capitalization of potential effects a kind of desubjectification. In spite of the emphasis on self-motivation, self-directed action, and self-management, Lewis writes, "the emphasis on the self

within the learning society speaks to an underlying crisis in the very self that is constantly being commanded to self-actualize its latent potentiality" (Lewis 2013, p. 6).

In other words, desubjectivation is a process that insists on the world *as it is* (necessity) and that alternatives *cannot possibly occur* (impossibility). The subject is captured as a resource for the world; his or her choices become nothing more than reflexes of the needs of the world to replicate itself. It is my contention that learning is the first initiation into the rituals of desubjectification. (Lewis 2013, p. 7)

To refer to learning as desubjectification, then, is to point to the reduction of the individual to a quantity of human capital, a generic skill set, and furthermore, to the individual. One's learning, health, and wellbeing are matters of individual responsibility but to be directed to a specific end: 'alternatives *cannot possibly occur*'.

Tiredness is only one aspect of fatigue; it is often accompanied by stress or anxiety. Like tiredness, stress is a potential threat to productivity and efficiency, and thus is an issue to be addressed by the individual through various interventions. Stress is a condition the researcher must find ways to manage and relieve, as advised in material such as 'The Balanced Researcher'. To some extent, stress and anxiety are permanent conditions. Not (always) states we let ourselves fall victim to due to poor (self-) management but natural responses to the conditions we find ourselves in, the questions the world asks of us, and that we ask of ourselves. This is denied or ignored if we understand stress solely as psychological imbalance in need of coping strategies. To explore a different response in relation to the subject position of the studier we turn now to Thoreau and Cavell.

5.3 The Stressed Researcher Beside Herself

The logic of learning and research, as discussed so far, is to always produce, to be working towards something, to translate our intentions and activities into an economically valuable output. To not do so, to not see the point of doing so, or to fail to do so might be accompanied by a sense of despair and hopelessness. These feelings are familiar to the researcher: when the research proposal fails and no funding is obtained; when the application for promotion is unsuccessful because the metrics don't quite make the grade. These are everyday disappointments in the university. But we have no choice but to continue and to do it again, and we become tired of being tired of it. We can alleviate the despair that ensues from the failure of this economy – putting in the work, getting nothing back – by looking on the bright side, seeking consolation from colleagues, accessing professional development, and trying again.

But despair and hopelessness are not only experienced by the tired researcher; they are inherent to the rhythms of the (exhausted) studier, a cycle of gaining and loss, and agony and ecstasy, is characteristic of study. For Cavell, referring to Thoreau's *Walden*: "Despair and a sense of loss are not static conditions, but goads

to our continuous labor" (Cavell 1992, p. 70). If learning is the accrual of knowledge and skills according to a logic of market value, education entails loss as an inherent condition of my relationship of myself to myself and to the other and the acknowledgement of this very doubleness. This is present in Thoreau's account of thinking and labour:

With thinking we may be beside ourselves in a sane sense. By a conscious effort of the mind we can stand aloof from actions and their consequences; and all things, good and bad, go by us like a torrent... I only know myself as a human entity; the scene, so to speak, of thoughts and affections; and am sensible of a certain doubleness by which I can stand as remote from myself as from another. However intense my experience, I am conscious of the presence and criticism of a part of me, which, as it were, is not a part of me, but spectator, sharing no experience, but taking note of it; and that is no more I than it is you. (Thoreau 1995/1854, p. 87)

This doubleness is an inherent part of ourselves, a part in which education consists, and a part denied by the desubjectivation of learning. The 'besideness' to which Thoreau refers in 'being beside oneself in a sane sense' is "my experience of my existence, my knowledge 'of myself as a human entity" (Cavell 1992, p. 104). This doubleness is:

a relation between ourselves in the aspect of indweller, unconsciously building, and in the aspect of spectator, impartially observing. Unity between these aspects is viewed not as a mutual absorption, but as a perpetual nextness, an act of neighbouring or befriending. (Cavell 1992, p. 108)

Being 'beside oneself' here is not understood as a lack, as having lost one's mind in a negative sense, but rather as that in which our personhood, our subjectivity, consists. This nextness is maintained, Cavell writes, by new "capacities for constancy and change" (p. 109). Thus we should resolve "not to deny either of its positions or attitudes" (ibid.). This entails not only not denying the nextness of the self to the self, but also not denying that that part of me that 'is not part of me, but spectator', may also be you, the other, to which I am always already answerable.

Being beside oneself refers also in older usage to being out of one's wits, to lacking common sense. To be out of one's wits suggests also being at the limit of one's understanding, of something being beyond comprehension, and thus suggests a condition in which the studier finds their place, though they may not settle there. This is not a condition in need of intervention or coping strategies but one inherent to education and to study. The studier then often finds no place in the representation of the researcher, as a quartered circle, subdivided in to lists of skills and attributes, each with its own developmental tools and devices to actualise that aspect of this self. This is not to say that the studier cannot be found, in the university or elsewhere, but perhaps they are not at home there, have not carved out a productive niche, and are more nomadic. Faced with a notion of research and of ourselves as researchers in which we do not see ourselves, that leaves us tired and stressed, we may feel like moving on, like leaving. But then wonder where else we might go. To explore further the notion of leaving, or departure, we turn again to Cavell and his discussion of Thoreau and Heidegger.

52 N. Hodgson

5.4 Homelessness and Working at Home

In his essay 'Thoreau thinks of ponds, Heidegger of rivers', Cavell's reading of Heidegger derives predominantly from his *Holderlin's Hymn 'The Ister'*, the river of the title. Thoreau's pond is Walden Pond, the location of his period of living in a self-made wooden hut that is the subject of his text *Walden*, *Or Life in the Woods* (1995). Cavell does not read the text, or Thoreau's temporary move from the town to the woodland, as 'a rejection of society in favour of an escape to a life of rural isolation' or as 'the celebration of a kind of individualism' (Standish and Saito 2005). Instead, Thoreau's stay in the woods is a way of engaging in society by means of a disruption of accepted ways of living within it: it is a refusal "to live what he will not call his own life" (Cavell 2005, p. 226). Thoreau's *Walden* is an account of his time spent in the woods in which 'account', along with other terms such as 'interest' and 'spending', relate to a particular meaning of economy. The Greek root of economy, $o\bar{\imath}kos$ – household – is pertinent here; for Thoreau the finding of one's *home* relates closely to finding one's voice, in the sense of the articulation of an *economy of living* or the life he will call his own.

Thoreau's desire to account for himself – through his action and his text – stems from his disappointment with the society he observes around him. In his expression of this, Cavell finds implied the contrast between the pond and the river. Thoreau asks "Why should we knock under and go with the stream?", which for Cavell refers to the need to "hurry along with the transitory things others institutionalize as necessities" (p. 224). The rushing stream then provides the image of society so busy with immediate demands, for profit, productivity and material wealth, that man does not think on why he does so, or at least not adequately so. Cavell sees this contrasted by Thoreau's reference to the pond, "the perpetual instilling and drenching of the pond that surrounds us" (pp. 224–5). Thoreau's appeal to this stillness does not, however, refer to a conservatism, but to a particular attention to physical and material conditions.

Instilling and drenching are concepts that articulate the individual's mode of what the writer calls 'apprehending', that is, thinking, and thinking specifically of whatever is culminating in the present. It is when the writer is kneeling alone on the ice (the posture of prayer?) that he shows himself to drink from Walden, that is, to be drenched by it, to receive what it gives to drink. (Cavell 2005, p. 226)

In contrast to the farming that is the business of his fellow citizens, in which nature appears as a resource to cater for human needs, Thoreau's attention to the pond expresses a humility in relation to nature, but also a stillness of thought, a disciplined contemplation that amounts to an intimate attention to the present, not in the name of a future condition but our constitution here and now.

The pond is a focus in Thoreau's text in relation to building a home, as the river is in Heidegger's thought. Cavell cites Heidegger's saying "the river determines the dwelling place of human beings upon the earth" (p. 226), recalling Heidegger's detailed elaboration of the relationship of man to the land in 'Building Dwelling Thinking' (Heidegger 1971). Cavell writes: "Heidegger of course

comments upon Hölderlin's line 'For rivers make arable/The land,' that is, suit the land for plowing, hence for settling (instead of wandering, as nomads)" (Cavell 2005, p. 225). The concern with dwelling in Heidegger's thought relates to the relationship of the river to the fate of the German nation: "Heidegger, in 1942, takes Holderlin's Ister as marking a hopeful, privileged destiny for Germany as well as for the German language" (p. 225). It is in Heidegger's "taking rivers as 'marking the path of a people' (Holderlin's Hymn, p. 31)" (p. 225) that marks the divergence in the understanding of home that emerges in Cavell's reading of the two authors.

In contrast to the river marking the path of a people, a destiny already determined, Thoreau focuses on the perpetual replenishment of the pond. Cavell considers Thoreau's saying "Here I will begin to mine" not only as reference to the preparatory digging of the foundations of his home at Walden Pond but also as "proposing the verb 'to mine' to name the act of making my being mine – my possibilities, my way in the world..." (p. 228). In contrast to the homebound-ness of Heidegger's imagery of the river in relation to the German nation, for Thoreau, being at home, and making my being mine, is referred to in terms of a sojourning, "living each day, everywhere and nowhere as a task and an event" (p. 229). This implies the finding of home, the labour of mining or making mine, to be a permanent condition; home is not a place we find once and for all or a future destiny. Rather, striving for home entails learning to leave in order that it is refound.

Whereas for Heidegger the achievement of the human requires inhabitation and settlement, for Thoreau it requires abandonment, leaving (Cavell 1992, p. 138). This act of departure may not be major and dramatic, but mundane; it might be the 'I prefer not to' of Agamben's potentiality, acting not in the name of productivity and outputs, but of thinking and labouring (cf. D'Hoest and Lewis 2015). For Thoreau, there are possibilities, rather than a path to a destiny; the attention to the present in mining is akin to the attention of the studier. It is not oriented towards an outcome but is a permanent condition, without end. For Lewis, the studier depicts education, rather than learning. The depiction of permanent renewal in Thoreau provides a further critical counterpoint to the outcome-oriented notions of research and innovation according to which the researcher is asked to understand herself.

5.5 Conclusion

The discussion of tiredness, stress, and homelessness here has sought to draw attention to aspects of the figure of the studier as a critique of the ways in which the researcher is asked to understand herself in the university today and in particular the way she is asked to address problems of work-load management and work-life balance. This responds to the long term change of discourse relating to the activity and purpose of the university, from scholarship to research, and research outputs

54 N. Hodgson

more specifically. The figure of the studier is used here as a critical subject position with which to see how the researcher is asked to understand herself, deal with issues, and what should be an issue for her in the first place. This is exemplified in the support literature, such as 'The Balanced Researcher' provided by Vitae.

Rather than critically assessing the language with which the excellent researcher is asked to understand herself directly – as creative, leading, enterprising, etc. – attention here is given to the everyday language and conditions in which the researcher finds herself – as tired, stressed, not feeling at home. These conditions are used to focus on an activity that marks the distinctiveness of the university (as opposed to the private research lab, for example): study.

The figure of the researcher does not automatically or only find a place in the university today but can be found at work in any number of other places – the museum archive, the pharmaceutical company lab, the think tank, the television production company, for example. To respond to changes in the constitution of the university today in terms of homelessness is not intended to invoke a homesickness (German *heimweh*), that is, a nostalgia (Greek *nostos* returning home, *algos* pain) for a university that no longer exists, based on a romantic notion of the studier or scholar. Rather, to approach this first change of discourse, from study or scholarship to research, in these terms is to seek different ways of relating to and responding to the conditions in which the researcher finds herself. Further, the notion of homelessness in particular draws attention to the second change of discourse identified in the introduction: not only is the figure of the researcher not a subject position distinct to the university, but also it is a subject position in which we are all addressed today. The disposition of the researcher, towards innovation for maximal efficiency, economy, and sustainability is as much required by the parent, the business leader, the farmer, the care worker, the chef. The shift in the discourse of governance from lifelong learning to research and innovation requires that we take responsibility for our self-development not only as individual economic agents in need of knowledge and skills, including the ability to maintain our own health and wellbeing, but also as agents required to find new means of attaining and deploying that knowledge and skills and identifying what knowledge and skills we require.

To understand ourselves in terms of research and innovation then rather than only in terms of learning marks a subtle but important change of discourse. The notions of exhaustion, being beside one's self, and finding a home, elaborated in relation to the studier here, offer notions of perpetual renewal, nextness, and departure that offer a critical contrast to the potentially privatising, domesticating notion of innovation that directs our attention and activity in particular ways to particular ends. If, as Lewis (2013) argues, "learning is the first initiation into the rituals of desubjectification" (p. 7), then understanding one's self in relation to research and innovation marks a further stage of this. This chapter has offered one perspective on how we might respond to this desubjectification. Further analysis is required on how it is effected and its educational and political implications.

References

- Agamben, G. (1995). Idea of prose. New York: SUNY Press.
- Atkinson, S., & Joyce, K. E. (2011). The place and practices of wellbeing in local governance. *Environment and Planning C: Government and Policy*, 29(1), 133–148.
- Cavell, S. (1992). The senses of Walden. London: University of Chicago Press.
- Cavell, S. (2005). Philosophy the day after tomorrow. Cambridge, MA: Belknap Harvard.
- D'Hoest, F., & Lewis, T. (2015). Exhausting the fatigue university: In search of a biopolitics of research. *Ethics and Education*. doi:10.1080/17449642.2014.998023.
- De Vos, J. (2012). Psychologisation in times of globalisation. London: Routledge.
- Deleuze, G. (1995). 'The Exhausted', trans. Anthony Uhlmann, SubStance, 24, 3 (78), 3-28.
- EC (European Commission). (2011). Communication from the commission to the European parliament, the Council, the European Economic and Social Committee and the Committee of the Regions horizon 2020 The framework programme for research and innovation. Brussels: European Commission.
- EU (European Union). (2013). *Innovation union a pocket guide on a Europe 2020 initiative*. Luxembourg: Publications Office of the European Union.
- Heidegger, M. (1971). 'Building Dwelling Thinking'. In *Poetry, language, thought* (A. Hofstadter, Trans.). New York: Harper and Row.
- Hodgson, N. (2010). European citizenship and evidence-based happiness. In P. Smeyers & M. Depaepe (Eds.), The ethics and aesthetics of statistics. Dordrecht: Springer.
- Hodgson, N. (2013). Materials that shape researchers. In P. Smeyers & M. Depaepe (Eds.), Educational research: Material culture and the representation of educational research. Dordrecht: Springer.
- Hodgson, N. (2014). Visualisation, performance, and the figure of the researcher. In A. Fejes & K. Nicoll (Eds.), *Foucault and a politics of confession in education*. London: Routledge.
- Hodgson, N., & Standish, P. (2006). Induction into educational research networks: The striated and the smooth. *Journal of Philosophy of Education*, 40(4), 563–574.
- Kearns, H. & Gardiner, M. (2008). 'The Balanced Researcher'. Careers Research and Advisory Centre (CRAC) Ltd.
- Lewis, T. (2013). On study: Giorgio Agamben and educational potentiality. Abingdon: Routledge.
- Rose, N. (1999). *Powers of freedom: Reframing political thought*. Cambridge: Cambridge University Press.
- Shore, C., & Wright, S. (1999). Audit culture and anthropology: Neo-liberalism in British higher education. *The Journal of the Royal Anthropological Institute*, 5(4), 557–575.
- Simons, M. (2006). Learning as investment: Notes on governmentality and biopolitics. *Educational Philosophy and Theory*, 38(4), 523–540.
- Standish, P., & Saito, N. (2005). 'Stanley Cavell's Walden: An introduction for Japanese Readers'. In *Sensu obu Woruden* (the Japanese translation of *The Senses of Walden*) (Trans: Naoko Saito) Tokyo: Hosei University Press.
- Storme, T. (2014). What is the sound of the child growing up? Essays on children, animals, humans and machines. Doctoral Thesis, Belgium: K.U Leuven.
- Thoreau, H. D. (1995/1854). Walden; or, life in the woods. New York: Dover Publications.

Chapter 6 Creativity, Education and the Future

Ian Munday

6.1 Introduction

In this paper I consider the claims representatives of the 'creativity movement' make in regards to change and the future. This will particularly focus on the role that the arts are supposed to play in responding to industrial imperatives for the twenty first century. I argue that the compressed vision of the future (and past) offered by creativity experts succumbs to the nihilism so often described by Nietzsche. In the second part of the paper I draw on Stanley Cavell's chapter 'Philosophy the Day After Tomorrow' (from a book with the same name) to consider a future oriented arts education that may not fall victim to nihilism.

6.2 Creativity and Change

When the topic of 'change' has come up in the various educational contexts I have inhabited over the past 14 years, conversations have tended to feature a number of claims or assumptions. There is the notion that, as a group, teachers are resistant to change (Humes 2013, p. 35) and that this resistance is largely related to inflexibility and lack of imagination, whereas a small number of teachers (usually young ones) are not so stuck in their ways. As part of this discourse, 'change' is seen as coterminous with progress and 'why' the change in question should be perceived as progress is rarely, if ever, discussed. If it is discussed, then this sometimes involves the invocation of a discourse that goes hand in hand with the aspirations of the 'creativity' movement.

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58 I. Munday

It is necessary to be a 'bit' cautious when alluding to a 'creativity movement' as some writers distinguish between different 'rhetorics' of creativity (Banaji and Burn 2006). Banaji and Burn argue that creativity can be divided into a series of rhetorics that emerge from the work of academics, policy-makers and arts educators. They maintain that a variety of claims about creativity emerge in this work that derive from different theories of learning, academic traditions and policy contexts. The authors identify nine rhetorics, namely: creative genius; democratic and political creativity; ubiquitous creativity; creativity as a social good; creativity as economic imperative; play and creativity; creativity and cognition; the creative affordances of technology and the creative classroom. The term 'rhetoric' here does not carry the value-laden negative connotations that sometimes attach to that term. 'Discourses' would have been just as, if not more, appropriate. Though there are tensions between some of these 'rhetorics', a number of them are brought together in what some educationalists refer to as a 'creativity movement'. Troman and Jeffrey and Ragi maintain that the origins of this movement derive from (1) progressive philosophies; (2) the influence and realisation of many parts of the new 'knowledge industries' whereby "the creativity of the worker is a new resource of labour power to be tapped for increased performance and prosperity in the 21st century" and (3) "the rise in the part played by the arts in policy, partly legitimated by the forward-looking industrial imperatives" (Troman and Jeffrey 2008, p. 3).

To give an example of what this trinity might look like, let me describe a session given by a creativity 'expert' (or guru?) at a course I attended last year. This 2 day event brought together artists and teachers from local schools to develop creative projects that would help children to become more resilient. The expert showed a video of a project he had been involved in. In the video children, working in groups, had gone to a station to record the noises they heard there. They worked in teams to generate poems using onomatopoeic renderings of those noises. I asked the expert what he felt the purpose of this project was. He maintained that its principal value lay in the students' experience of working in teams, building self-esteem and the things they did with ICT to present their poems – 'soft' and software skills. Artists and teachers would work together to produce projects that would help to boost such skills. I think it is fairly clear that the activities (in a rather shallow way) mirror those associated with 'current' versions of progressive pedagogy - group work, project work etc. Such a pedagogy is taken to be coterminous with transferable skills for the twenty first century. Artists are therefore seen as co-facilitators in helping children to develop such skills as it will make them 'resilient'.

6.3 Creativity and the Future

As regards 'change', it is interesting to see how creativity experts talk about the future. In *Creativity and Education Futures learning in a digital age*, Anna Craft distinguishes between 'probable education futures', 'preferred education futures' and 'possible education futures' (Craft 2011, 29–32). Detectable trends include:

"...increases in uncertainty, change, cultural diversity, environmental challenge, digital engagement, population growth, economic challenge..." (29). In contrast a focus on: "...preferred education futures takes us into a less predictive and more emancipatory place of critical values which, together with informed critique-oriented ethical and political debate, leads to proposals for alternative education futures" (31). Craft has little to say about 'preferred futures'. Affirming values about what the future should be like is apparently inefficient and difficult, though what is desirable (emancipation of some sort) is taken for granted. It would seem that thinking in terms of 'possible futures' is simply about tweaking the 'probable' ones: "Clearly preferred futures are determined by patterns of values; given the difficulties we seem collectively to have with imagining possibilities at this point in the early twenty first century, together with the time-lag we experience in moving from policy to practice – thus it might be more useful to explore possible futures" (ibid.). Possible futures are considered in relation to "probable continued and increasingly rapid change" (32).

How might education systems prepare students for this constantly changing future where values are an unaffordable luxury? I recently attended a conference session on creativity and divergent thinking. The speaker had conducted a piece of research with Primary school students in which they were given various foodstuffs to create a salad. Those students who put pineapple with lettuce were deemed to be more creative. When it was put to the speaker that this was disgusting rather than creative she said that it wasn't creative enough and that 'they should have put biscuits in the salad'. In a piece of research conducted last year with my colleague John I'Anson we interviewed teachers at a local school engaged in an interdisciplinary project on 'wilderness'. When we asked students and staff to account for the purposes and appeal of various activities the only responses related to enjoyment and the fact that it wasn't what was normally done in history, geography etc. – that it 'diverged' from what is usually done.

6.4 Creativity and Nihilism

This discourse of 'newness' is inherently nihilistic in the sense discussed by Nietzsche. The lack of real goals and purposes lets nihilism in. This is due to: "the formulation of value as the opposite of its opposite that Nietzsche – again – saw as the core of nihilism. What do we stand for? We are no longer sure: only that it is not what others represent. We are the reds, which means that we are definitely not the blues" (Blake et al. xii). If there is no overriding aim intrinsic to what we do, "success and failure, efficiency or inefficiency, are the only imaginable goals. To succeed is not to fail and vice versa. This is nihilism" (ibid). If the only value in my interdisciplinary creative project is that it is 'not' like what I normally do in geography then this is nihilism. If being different is all there is, then why not put biscuits in the salad?

For Nietzsche: "the highest values devalue themselves. The aim is lacking, and 'Why' finds no answer" (Nietzsche 1967, p. 9). The collapse of relevance, meaning and truth will bring about a destructive force that will sweep through Europe. Nietzsche's account of nihilism is in part predictive and hopefully too pessimistic. Given that *The Will to Power* was published in 1901 we have some time left for Nietzsche to be proved wrong (assuming that he was ever quite right). Here is Nietzsche:

What I relate is the history of the next two centuries. I describe what is coming, what can no longer come differently: *the advent of nihilism* ... For some time now our whole European culture has been moving as toward a catastrophe, with a tortured tension that is growing from decade to decade: restlessly, violently, headlong, like a river that wants to reach the end ... (ibid)

It is interesting to consider that Nietzsche's depiction is not 'flat' but full of force and energy. However, the forces here are those of desperation, ressentiment, feeling turned back on itself. Consider this in relation to the creativity discourse which pictures ongoing situation from the past into the future where creativity was/is about nothing much than a growing intensification for the need to be flexible and different. Through our creativity and constant innovations, we reach out ahead of ourselves generating the panic that can only be quelled by our becoming flexible and relishing those therapeutic pleasures which creativity provides. It seems that creativity both poisons society and provides the antidote that allows for survival. A creative society is like a snake that bites its own tail and then kisses it better. Consider this passage from Ken Robinson's book *Out of Our Minds* that also carries with it a restless, tortured tension:

Throughout the world, companies and organisations are trying to compete in a world of economic and technological change that is moving faster than ever. As the axis shifts towards intellectual labour and services, they urgently need people who are creative, innovative and flexible. Too often they can't find them. (Robinson 2001, p. 1)

People need to be creative innovative and flexible if they are not going to get swallowed up in the tsunami. Education is largely to blame for this problem – businesses are forced to put on inadequate training programmes that only touch the surface. Like Nietzsche, Robinson employs a river metaphor – education is 'upstream'; business is 'downstream' (p.12).

When Nietzsche talks about "the man of tomorrow and the day after tomorrow", that 'man' finds himself "in contradiction to his today" (Nietzsche 1967, section 212). Craft and Robinson tend to present themselves as the representatives of the people of tomorrow. At a superficial level this can appear to be the case. After all, they demonstrate how moribund tendencies of school culture (with its emphasis on testing etc.) are when looked at through the lens of a social imaginary that requires creative productivity. However, both present visions of the future that picture education as an ongoing response to a perpetual 'now'. This marries with a compressed understanding of history. In accordance with the 'creative' zeitgeist, just as tomorrow will be mostly like today it appears to be the case that yesterday wasn't all that different either. A few years ago, Cambridge University entered its

800th year. As I walked along Hills Road, a giant poster displayed the words "The University of Cambridge, 800 years of innovation". We are transported back to a time when the founders of Cambridge University maximised their potential through engagement in all manner of creative synergies whilst operationalising creative collaborations and constructing innovative networking processes. Craft and Robinson seems to buy into this compressed understanding of history where people were always 'innovating' and always will be. The only difference is that things have intensified due to increasingly rapid change.

6.5 The Art of Change

What continues to perplex me as regards the current treatment of art in educational circles is why art and artists are seen as the practitoners/instruments for meeting the needs of the twenty first century economy. Why are artists seen as a good 'resource' for facilitating the emergence of innovative executives or entrepreneurs? It may be because many artists are themselves entrepreneurs living off their wits and responding to a continually shifting set of economic circumstances. However, any study of statistics pertaining to artists' earnings will suggest that, on the whole, they are not particularly good entrepreneurs. We could speculate further and consider whether artists may contribute to the development of aforementioned progressive pedagogies. This seems pretty unlikely given that "the field of art is (perhaps together with that of sport and athletics) one of the few domains where teachers 'of the old style' are still allowed to impose harsh forms of discipline on their students" (Vlieghe 2015, p. 1.). Perhaps then artists are thought to be exemplary creative figures. This might make more sense if the current advocates of creativity in education were less quick to insist that people in all domains, academic or otherwise, are creative, though most people are apparently 'small 'c' creatives' (Amabile 1996). Moreover, it is unclear (assuming one accepts such categories) whether artists are big 'C' or small 'c' creatives. Why would you get big 'C's to help children to become better small 'c's? None of these questions are answered or even broached in the literature I have encountered.

6.6 Education for the Day After Tomorrow

It is difficult to ascertain what the purpose of art is for those who wish to produce the 'creatives' of the future. Perhaps the only way of escaping the emptiness of talk in the matter is to take a backward look and advocate an art for art's sake approach whereby children study art or literature because these things are intrinsically worth doing. Though I have some sympathy with this position, I believe that one may also look backward and forward to consider other ways of conceiving the purpose of the arts in education that do not succumb to nihilism.

In this paper I want to consider the possibilities of teaching for creativity that cannot be captured in either small or big 'C' terms. The 'call' for such a project comes from Stanley Cavell's chapter 'Philosophy the day after tomorrow' (Cavell 2005) in a book by the same name. Interestingly, and significantly, Cavell does not begin the chapter with Nietzsche despite the fact that the latter's 'man of tomorrow and the day after tomorrow' is the inspiration for its title. Rather, it begins with Wittgenstein (before Nietzsche historically) who 'meets' Nietzsche and then Emerson a third of the way through. The twentieth century and Hollywood comedies of remarriage are then introduced to the conversation before they speak to their precursors at the beginning of the nineteenth century – Jane Austen's heroines. This feeds through into a discussion of George Eliot who was more or less Nietzsche's contemporary. Such a chronology of introductions is obviously 'untimely' in the sense that it is not linear. As we shall see, it is untimely in another sense too.

6.7 Wittgenstein

Given that Cavell's first untimely figure (as regards the sequence in the chapter) is Wittgenstein, let us begin with his role in Cavell's project. Cavell considers a fragment he takes to epitomise Wittgenstein's views on teaching and learning: "If I have exhausted the justifications [for following the rules of mathematics or of ordinary language as I do] I have reached bedrock and my spade is turned. Then I am inclined to say, 'This is simply what I do" (Wittgenstein in Cavell 2005, p. 112). Cavell maintains that the reading of this scene has achieved consensus in the United States (see Kripke 1982) where the teacher's gesture is taken to be a display of power. Reaching bedrock is a political gesture a "speaking for the community and its settlements, demanding agreement, threatening exclusion" (Cavell 2005, p. 113). In direct contrast, Cavell views this scene as a display of weakness that may serve to enlighten the teacher. In other words, Cavell focuses on the affective, perhaps literary, aspects of this scene (which he calls a phantasm). He focuses on the fact that Wittgenstein rather than saying "This is simply what I do" is 'inclined' to say it and this means that the words are never actually said. Instead we have a moment of silence (p. 112). For Cavell, this sort of impasse is integral to the Investigations where "philosophy comes to an end 693 times" and would presumably start up again infinitely (ibid).

For Cavell, good philosophers (and good teachers) know when to be silent and when to break that silence (p. 114). Philosophy (and teaching) should therefore be about knowing when something is worth saying and when it is not. But how should what is worth saying be decided? It is decided in a kind of confrontation (which may or may not be fractious) between teacher and student. This way philosophy (and the same can be said for teaching) will not speak into the void with an

impersonal metaphysical voice. Rather philosophy/teaching will be oriented towards the other and what 'interests' her. However, the notion of what 'interests' us has quite an unusual inflection in Cavell's outlook. 'Interest' here is bound up with things mattering in ways that cannot be reduced to instrumental or abstract/ metaphysical factors. So things do not 'matter' in Cavell's sense 'just' because they are useful or true. Rather, they matter because we care about them. It is not as though truth was something we would want to dismiss, but rather that something being true should connect to our ordinary concerns. Those concerns cannot be with truth alone if it is abstracted from our immediate cares and desires. Consequently, "if it is part of teaching to undertake to validate these measures of interest, then it would be quite as if teaching must, as it were, undertake to show a reason for speaking at all" (Cavell 2005, p. 115) In this sense, good teaching has a therapeutic aspect in that it shows itself as "a struggle against melancholy, against being overtaken by pointlessness" (p. 116).

6.8 Wittgenstein and Nietzsche

It is at this point that Cavell introduces Nietzsche to the discussion. Cavell feels that Nietzsche is haunted by the prospect of speaking pointlessly as the latter writes: "One should speak only where one *must* not be silent... Everything else is chatter". Moreover, Cavell does not say as much but Nietzche seems to be suggesting that speech (that is not 'chatter') comes about when we are addressed by a kind of 'calling', when we *must* not be silent. The voice that responds to this call will transfigure things. It will be futural and will not harmonise with a perpetual now. The words will be uttered and 'heard' by the men 'for tomorrow and the day after tomorrow'. To return to a quotation included earlier, in *Beyond Good and Evil* the man of tomorrow is linked to the philosopher for that "extraordinary furtherer of man...has always found himself, and *had* to find himself in contradiction to his today" (Nietzsche 1967, section 212). Cavell italicises 'had' to indicate the lack of choice here, a calling that cannot be refused.

Let us pause for a moment and consider what all this has to say to concerns pertaining to creativity, the arts and education. There is so much noise in the discussion surrounding creativity, yet it can seem so meaningless. If you listen to one of Robinson's talks on YouTube he spends at least half of it telling jokes or offers the sort of bland definitions of creativity that could mean everything and nothing. As mentioned above, any sort of well-conceived justification for including the arts in an education for the creative twenty-first century is missing. In an attack on the organisation Creative Scotland Don Patterson calls creativity the 'c' word. For those unacquainted with it, the 'c' word is more commonly an abbreviation for one of the more offensive words in the English language. This is because, if taken literally, it is an insult where the target is being compared to female genitalia. It is

64 I. Munday

one of those words that should never be said. For Patterson, creativity is just such a word: "I have yet to meet one single serious artist who does not privately hold the word 'creative' in anything but contempt. While artists self-evidently are 'creative', they don't regard themselves as such, because they know self-consciousness is the death of art; this is why Creative Scotland sounds like a country thoroughly uncertain if it is" (Paterson 2012, p. 34). It is interesting that Paterson notes artists' 'private' disdain for the word 'creativity', as this of course implies that, in the current climate, they cannot make this public. One might think here of Nietzsche's claim that he had been poorly received in his own country (Nietzsche 1986). Nietzsche could afford to speak up. Struggling artists, if they wish to survive, cannot - they must speak for their time when they dare not speak against it. Paterson's point is Nietzschian on several levels. The kind of self-consciousness that threatens Nietzsche's philosophy is clearly echoed by Paterson's claims about art. Moreover, the desperate lack of self-confidence that he identifies in the seeming need to trumpet Scotland's creativity sounds so like Nietzsche's discussion of ressentiment. To paraphrase Emerson (and a favourite quotation of Cavell's), it seems that every word they say 'chagrins' Paterson.

On a more positive (though not necessarily cheery) note, the vision of the teacher presented by Cavell/Wittgenstein is interesting. So much of the literature on creative teaching or learning has the teacher play a facilitating role as children set about problem solving. In contrast Cavell's (and Wittgenstein's) teacher is constantly open to problems dissolving before reappearing transfigured after periods of silence. Here, objectives cannot be ticked off and just as things seem to move forward we are pulled back again as they are transfigured. Receptiveness to this happening allows for (assuming one can still use the word) creative translations. (see Saito and Standish 2009, for a fuller discussion of Cavell and translation)

For Nietzsche, Cavell and Wittgenstein, the creative (not a word used by any of them) way to address the vicissitudes of speech and silence discussed by Paterson is to populate their texts with characters who present provocations of one sort or another. Cavell demonstrates how the invention of imaginary others (or variants and phantasms of oneself) is central to what the *Investigations* is trying to achieve. He notes the "considerable set of stories" (Cavell 2005, p. 115) where things are worked and reworked. Cavell turns to his own relationship with Wittgenstein to offer another parable of sorts where Wittgenstein goes for a stroll with him and proceeds "unobjectionably to stroll with us around the garden but soon turns around and walks backward, or perhaps starts twirling on point every other step, or begins taking a step only every two seconds, always insisting, in response to our questioning, that he is doing the same thing, namely, strolling with us" (ibid). I take Cavell's move here to echo Nietzsche's attention to "figurative language and thinking" (Hicks and Rosenberg 2003, p. 4). Nietzsche maintained that the Ancient Greeks revealed "the profound mysteries of their views . . . to those with insight, not admittedly via concepts, but through the penetratingly vivid figures of their gods". What does this mean, and why is a kind of figurative thinking privileged over the conceptual? It is because: "we understand figures directly: all such [figurative forms] forms (*Formen*) speak to us [immediately, intuitively]" (ibid). Though the philosopher will always come along to interpret these figures and introduce a conceptual element into the picture, this will be outstripped by the figurative:

....the implication is that figurative thinking (*Bilderdenken*) is already 'out there' ahead of what we can currently formulate conceptually and discursively in the prevailing philosophical language available to us. The poetic and literary figures outstrip, in some sense, what can be stated (at the present time) propositionally; and subsequent philosophical reflection on the figures and what they embody generates new concepts and propositions that, in turn, are outstripped by new and more innovative figures. (ibid)

Such figures are therefore 'untimely' because they are ambiguous, disconcerting and are not dogmatic. They run ahead of us and "integrate comic art and knowledge into a form that will make life tolerable again" (ibid.). The persona adopted by the late comedian Bill Hicks (who died at the age of 33) might be an example of such an untimely figure. Hicks would appear on stage through a ring of fire, dressed all in black, to the sound of 'Purple Haze' by Jimi Hendrix. In one routine, Hicks provides a 'solution' to the 'problem' of the terminally ill. He argues that they should be used as extras in action movies. Hicks is well aware that the notion of using the terminally ill as stuntmen will offend the audience's sense of public decency, but he is running ahead of them. His aim is to put them off guard, on the defensive, before hitting them with the powerful moment in the routine, the moment when they reflect on what actually happens to the terminally ill and how this seems so acceptable: "Oh God Bill, terminally ill stuntpeople? That's terribly cruel." You know what I think cruel is? Leaving your loved ones to die in a sterile hospital room surrounded by strangers. Fuck that. Put "em in the movies" (Hicks 2005, 162). Hicks offer a way of reimagining the moral life by unsettling it in its timeliness. The primacy of expression here trumps any attempt at a formal argument. In this sense we are given an education into possibilities of thinking differently about the nature of our times.

The kind of figurative thinking championed by Nietzsche and exhibited by Cavell demonstrates a role for the arts, most specifically literature (and perhaps comedy), to the development of a creative moral education. This is because such figures can present the sort of encounters that "open up spaces for alternative human possibilities" (Hicks and Rosenberg 2003, p. 4). They do this for one another within texts and they do it for us when we encounter or rub up against them. Cavell often compares the force of such literary meetings with the somewhat arid or abstract moral problems that sometimes feature in moral philosophy and moral education. I think here of a lecture given by Michael Sandel that was televised on BBC 4. It involves quite a familiar story about a runaway train and a fat man on a bridge. Utilitarians would push him off. Kantians would not. Unless we are extremely unlucky, such situations are set at a remove from our usual moral dilemmas. It is this remove and sense of 'language going on holiday' from our ordinary troubles, concerns, desires etc. that can seem so problematic. On the other hand, literature, (or at least good literature) 'touches' our everyday concerns – there is a metonymic connection between the moral life there and our own.

66 I. Munday

6.9 Nietzsche, Austen and Eliot

Sadly there is no space in this paper to try and interpret or translate Cavell's discussion of the Hollywood 'comedies of remarriage'. It is perhaps enough to say that Cavell finds their precursor in the novels of Jane Austen. Cavell knows that bringing together Nietzsche's 'garish emotionality with, to take the plainer case, Jane Austen's narrators' renowned sense of containment' may seem somewhat shocking (Cavell, p.124). However, he feels that "the spiritual distress registered in Nietzsche, and characteristic of his writing, is not inaccurate to something to be felt in Jane Austen's prose. You might say that her prose seeks incessantly to minimize (hence maintain) the expression of distress in everyday existence no less drastically than Nietzsche seeks to maximise it" (ibid.). The first untimely figure (if one discounts Austen herself) is Emma. Here is Cavell/Austen:

When I read on the opening page of Jane Austen's *Emma* that its heroine "seemed to unite some of the best blessings of existence" (she is said to be handsome, clever, rich, young), and that "it was on the wedding-day of [her]beloved friend [namely, her governess of sixteen years, said to be her friend and her sister as well as the replacement for the loss of her mother] that Emma first sat in mournful thought of any continuance," I find that I am unsure whether this meditation means that she is vexed not to have her friend to continue their happy mode of existence; or whether it suggests that she is so grief-stricken that she cannot imagine wanting her existence to continue;... (ibid.)

Cavell finds this scene interesting because it demands a kind of moral imaginativeness on the part of the reader. To what extent should we take Emma seriously? Should we see her behaviour as the mark of immaturity or something darker? This may not be an either/or question. Why not take it, as Cavell does, as both? He goes on to imagine just what it is that is at stake in losing such a partner in a universe in which the kind of relationship that Emma has with her governess is so difficult to find and where the likelihood for living such a rich meaningful life is so slim. Instead Emma is left with her father "but he was no companion for her. He could not meet her in conversation, rational or playful" (ibid). Cavell notes that "the very capacity for rational and playful conversation proves to have its own form of isolation, or say alienation, and to produce its own aspiration for encounter and, let us say, for transcendence of the present state of things" (ibid). Worse still, "to have this capacity unmet bespeaks a danger of loneliness not unsuggestive of madness" (ibid). Such a situation for women in Jane Austen's world was more a likelihood than a simple danger.

Though Jane Austen and her heroines are undoubtedly untimely figures for their own time can they still speak to us now? After all, 'most' women in the 'western' world are not subject to the kinds of deprivation that threatened Jane Austen and her contemporaries. Cavell addresses this issue in the final pages of the chapter asking: "So haven't these historical everydays become impertinent to our modern, or postmodern, achievements? Or is their impertinence part of our achievements?" As, is so common with Cavell, there is so much to hear in this. The choice of impertinence is part of a sentence in which a 'possible' lack of pertinence is conjoined with the sense of rudeness; the rude force, so subtle in Jane Austen's

novels, may no longer affect us. Yet who is the 'us' in all this? We might wonder when we consider Cavell's oblique answer to the question of impertinence. In a sense he does not answer it (as though his spade, for reasons related to impertinence, may be turned). At least 'he' does not attempt to answer on his own. Instead the conch is passed through time to George Eliot. Cavell takes on Eliot's "perception of her era (allowing it to be open how far it differs from ours) as already constituting, at least for women (allowing it to be open how far their fate differs from the rest of us), the scene of a great separation" (p. 130). Cavell points out that Eliot begins and ends Middlemarch with the penetratingly vivid figure of Saint Theresa whose epic life is contrasted with a modern world in which "many Theresas have been born who found for themselves no epic life...perhaps only a life of mistakes, the offspring of a certain spiritual grandeur ill-matched with the meanness of opportunity" (ibid). Cavell then brings Eliot into conversation with Nietzsche, a conversation that presumably never happened (though perhaps could have happened given they were contemporaries) where Nietzsche writes "The best in us has perhaps been inherited from the feelings of former times, feelings which today can hardly be approached on direct paths; the sun has already set, but our life's sky shines with it still, although we no longer see it" (Nietzsche 1986, section 223). Cavell gives Eliot the last word announcing that her project was to become the heroine of everyday life in which "we insignificant people with our daily words and acts are preparing the lives of many Dorotheas [the heroine of *Middlemarch*], whose unhistoric, hidden acts 'the growing good of the world is partly dependent on" (ibid.).

Offering an interpretation of what I have just presented (standing back from it in a way Cavell does not) seems almost impertinent. Though he does not say as much, I think that the impertinence which Cavell is dealing with concerns speaking on behalf of women in regards to the impertinence/irrelevance of Jane Austen or George Eliot to a creative form of moral education for today. However, he is, it appears, taking a stand in regards to what both offer in relation to Nietzsche's work. The idea seems to be that Nietzsche may be less the man of tomorrow than he thinks he is – talk of tomorrow is more about an imaginary yesterday and the 'man' of tomorrow is presented as mythic. It seems that what Cavell (and we) can see, and Nietzsche cannot, is that Austen and Eliot may provide something more substantial in regard to a creative future that is rooted in the ordinary. Nietzsche could not see that possibility, yet he shared the times of Eliot and followed those of Austen. He could not see that a better 'man' for tomorrow might be a woman. Perhaps if he had seen that then the desperate predictions about the river of nihilism may not have been so absolute. Returning again to the question of impertinence of Austen or Eliot as regards the greater freedom of (most western) women, are we to see that as something counter to nihilism? I think so, but Cavell, by refusing to answer the question of impertinence leaves open the idea that things have not changed enough. He does, however, point to something that he had failed to notice in his early readings of Austen namely the 'elation of her novel's conclusions' where, for example, Emma finds a companion who can offer the sort of vital life that she craves. He had ignored such achievements as he had been distracted by the silliness 68 I. Munday

and the stupidity that the heroines had to overcome in themselves (Cavell, 126). Such achievements mark what will be, at least, a temporary overcoming of nihilism.

Bringing Austen, Eliot and Nietzsche together in the way that Cavell does adds a political dimension to Cavell's literary form of moral education. There is a sense in which the work of these two great novelists overcomes the man for the day after tomorrow (overman?). This is done through a refusal of a mythic past (and its relative purities) and the championing of ordinary grubby exchanges that offer the faint promise of perfection. In terms of schooling, the literary handling of ordinary lives presents itself as a more potent political force than, say attempting to produce 'responsible citizens' through the normal channels of citizenship education. It does this because it comes from (and still touches) the ground. An educational turn from abstractions towards the arts may mean that the political and moral dimensions of our lives are bound to our everyday 'improvisations in the disorders of desire'. This is not about trying to produce artists (though this may be one result) and it is nothing as timid and shrinking as visions of small 'c' creativity or as instrumental as 'lifewide creativity' (which describes the application of creativity to the breadth of contexts in everyday life and sees it as a fundamental attribute to enable adaptation and response in a fast changing world (Craft 2005, 113–114). Rather it is epic and ordinary, heroic and brown.

6.10 Conclusion

In this paper I have tried to make a case for an approach to 'creativity' and education that embraces 'change' but has nothing whatsoever to do with the notion of change advanced by representatives of the creativity movement. Perhaps using the words 'change' and 'creativity' is inappropriate and brings the argument closer to nihilism than might be desirable. 'Translation' (a word that Cavell sometimes uses) and 'overcoming' might be better. However, as I have tried to show, we cannot but be close to nihilism and our words are always haunted by the possibility that they may become meaningless. Using the arts as a mechanism for untimely translations would, I think, tip over that edge and that is not what is being advocated here. Such translations or transformations are integral to good literature and good art. That said the school teacher's (artists and philosophers have also been shown to be teachers) role is still important in an economy of speech and silence. If literature is to connect to passionate and expressive aspects of the moral life then the teacher has a role to play here too.

References

Amabile, T. M. (1996). *Creativity in context*. Colorado: Westview Press.

Banaji, S., & Burn, A. (2006). *The rhetorics of creativity: A review of the Literature*. London: Arts Council Engand.

Bearn, G. (2000). Pointlessness and the university of beauty. In P. Dhillon & P. Standish (Eds.), *Lyotard: Just education*. London: Routledge.

Cavell, S. (2005). Philosophy the day after tomorrow. Cambridge, MA: Belknap Press.

Craft, A. (2005). Creativity in schools tensions and dilemmas. London: Routledge.

Craft, A. (2011). Creativity and education futures learning in a digital age. Stoke on Trent: Trentham Books.

Hicks, B. (2005). Love all the people: Letters, lyrics, routines. London: Constable.

Hicks, S. V., & Rosenburg, A. (2003). Nietzsche and untimeliness: The 'Philosopher of the Future' as the figure of disruptive wisdom. The Journal of Nietzsche Studies, 25, 1–34.

Humes, W. (2013). The origins and development of curriculum for excellence. In M. Priestley & G. Biesta (Eds.), *Reinventing the curriculum*. London: Bloomsbury Academic.

Kripke, S. (1982). Wittgenstein on rules and private language. Cambridge: Cambridge University Press.

Nietzsche, F. (1967). Beyond good and evil: A prelude to a philosophy of the future (trans: Kaufmann, W.). New York: Vintage.

Nietzsche, F. (1986). *Human, all too human: A book for free spirits* (trans: Faber, M.). Lincoln: Nebraska Press.

Nietzsche, F. (1999). The birth of tragedy. Cambridge: Cambridge University Press.

Paterson, D. (2012). A post-creative Scotland. http://www.heraldscotland.com/books-poetry/comment-debate/a-post-creative-scotland.2012091643.

Robinson, K. (2001). Out of our minds. Oxford: Capstone.

Robinson, K. http://www.teachers.tv/videos/sir-ken-robinson.

Saito, S., & Standish, P. (2009). What's the problem with problem solving. Language, skepticism and pragmatism'. *Contemporary Pragmatism*, 6(1), 153–167.

Troman, G., & Jeffrey, B. (2008, September). *Professional cultures of creativity and care in performative primary schools*. Paper presented at the European Conference on Educational Research, University of Goteborg.

Vlieghe, J. (2015). A poeitic force that belongs to no-one: Reflections on art and education from an Agambenian perspective. In M. Laverty & T. Lewis (Eds.), *Art's teachings. Teaching's Art* (pp. 33–48). New York/London: Springer.

Wittgenstein, L. (1953). Philosophical investigations. Oxford: Blackwell.

Chapter 7 Neuromyths for Educational Research and the Educational Field?

Paul Smeyers

7.1 Neuroscience

There is a new hype in educational research: it is called educational neuroscience or even neuroeducation (and neuroethics)—there are numerous publications, special journals, and an abundance of research projects together with the advertisement of many positions at renown research centres worldwide. An interesting starting point to see the gist of what is argued for is offered by a number of position papers published in a special issue¹ of one of the philosophy of education journals

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To identify relevant publications I started from a bibliographical search in the *Philosopher's Index* and the *Social Sciences Citation Index* (July 2014) and used as keywords neuroscience and education.

¹ The special issue (Patten and Campbell 2011) contains the following contributions: Introduction: Educational Neuroscience (pages 1–6), by Kathryn E. Patten and Stephen R. Campbell; Educational Neuroscience: Motivations, methodology, and implications (pages 7–16) by Stephen R. Campbell; Can Cognitive Neuroscience Ground a Science of Learning? (pages 17–23) by Anthony E. Kelly; A Multiperspective Approach to Neuroeducational Research (pages 24–30) by Paul A. Howard-Jones; What Can Neuroscience Bring to Education? (pages 31–36) by Michel Ferrari; Connecting Education and Cognitive Neuroscience: Where will the journey take us? (pages 37–42) by Daniel Ansari, Donna Coch and Bert De Smedt; Position Statement on Motiva tions, Methodologies, and Practical Implications of Educational Neuroscience Research: fMRI studies of the neural correlates of creative intelligence (pages 43–47) by John Geake; Brain-Science Based Cohort Studies (pages 48–55) by Hideaki Koizumi; Directions for Mind, Brain, and Education: Methods, Models, and Morality (pages 56–66) by Zachary Stein and Kurt W. Fischer; The Birth of a Field and the Rebirth of the Laboratory School by Marc Schwartz and Jeanne Gerlach; Mathematics Education and Neurosciences: Towards interdisciplinary insights into the

P. Smeyers

(Educational Philosophy and Theory). Incidentally, the contributors are not philosophers of education, but researchers working in the area of neuroscience. The guest editors identify as a common aim of educational neuroscience "to produce results that ultimately improve teaching and learning, in theory and in practice" (Patten and Campbell 2011, p. 6). I hasten to add that the articles are full of warnings, for example not to misapply science to education, that filling the gulf between current science and direct classroom application is premature, and insist not to exaggerate what this area could mean for education, thus to work in close collaboration with Yet almost all are also expressing the hope (and the confidence) that a lot may be expected from this, called by some, an emerging subdiscipline. Here are some typical quotes from these papers.

The 'holy grail', for a transdisciplinary educational neuroscience as I see it, would be to empower learners through the volitional application of minds to consciously perceive and alter their own brain processes into states more conducive to various aspects of learning. (Campbell in Patten and Campbell 2011, pp. 8–9).

The question is not whether there are connections between minds and brains. There clearly are. The evidence is insurmountable and growing. The question then is to what extent, subject to intrinsic theoretical and practical limits of measurement and analysis, can we identify changes in mental states as changes in brain and brain behaviour, and vice versa. (Campbell in Patten and Campbell 2011, p. 11)

Working in the area of mathematics education Stephen Campbell, who has a particular interest in the nature of mathematics anxiety and mathematical concept formation (for example in ways in which the former impedes the latter), outlines that he has in his educational neuroscience laboratory (the ENGRAMMETRON,² Faculty of Education at Simon Fraser University) equipment to record

electroencephalograms (EEG), electrocardiograms (EKG), electro-oculograms (EOG), and electromylograms (EMG), which pertain to brain activity, heart rate, eye movement and muscle movement. ... All these psychophysiological metrics are augmented with eye-tracking technology, screen capture, keyboard and mouse capture, and multiple video recordings of participants from various perspectives. These data sets can then be integrated and synchronized for coding, analysis, and interpretation, thereby affording comprehensive observations and insights into the learning process. (Campbell in Patten and Campbell 2011, p. 13)

development of young children's mathematical abilities (pages 75–80) by Fenna Van Nes; Neuroscience and the Teaching by Kerry Lee and Swee Fong Ng; The Somatic Appraisal Model of Affect by Kathryn E. Patten; Implications of Affective and Social Neuroscience by Mary Helen Immordino-Yang.

² See http://www.engrammetron.net/about.html (retrieved October 22 2013) "ENGRAMMETRON facilities enable simultaneous observation and acquisition of audio data from talking-aloud reflective protocols; video data of facial and bodily expression; and real-time screen capture. Instrumentation most notably supports: multi-channel electroencephalography electrocardiography (EKG); electromyography (EMG); and (ET) capability. Orbiting this constellation of observational methods around computer enhanced learning platforms allows for unprecedented flexibility of educational research experimental design and delivery, and for subsequent data integration and analyses."

According to Campbell:

The main challenge has been to muster evidence and rationale to justify this initiative to funding agencies traditionally supporting educational research. (Campbell in Patten and Campbell 2011, p. 14)

In the same issue Howard-Jones refers to an OECD Brain and Learning project and to the UK's NeuroEducational research network at the University of Bristol (NEnet, www.neuroeducational.net). He argues in favour of a multiperspective approach (from neuroscience and education) and refers for instance to work within NEnet, i.e., an fMRI study of creativity fostering strategies:

This imaging study, which included a focus on the biological correlates of creativity, was useful in revealing how those parts of the brain associated with creative effort in a story telling task were further activated when unrelated stimulus words had to be included. Results provided some helpful indication, at the biological level of action, of the likely effectiveness of such strategies in the longer term. (Howard-Jones in Patten and Campbell 2011, p. 26)

Similarly Ferrari (in Patten and Campbell 2011) argues:

... unlike cognitive neuroscience—which aims to explain how the mind is embodied—educational neuroscience necessarily incorporates values that reflect the kind of citizen and the kind of society we aspire to create (p. 31) ... What are the biological foundations of authentic and deep understanding? Of an appreciation of art and beauty? Or of compassion for those in need at home and around the world? All these concerns reflect different values that matter to particular communities and neuroscience could inform us about all of them. (Ferrari in Patten and Campbell 2011, p. 35)

As I said, the papers are full of warnings, for example Ansari, Coch & De Smedt (in Patten and Campbell 2011, p. 41) write:

... close inspection of these claims for a direct connection between particular 'brain-based' tools and teaching approaches reveals very loose and often factually incorrect links ... the direct application of neuroscience findings to the classroom has not been particularly fruitful (Ansari, Coch, & De Smedt in Patten and Campbell 2011, p. 41)

Nevertheless, they too remain 'believers' when they identify for example as a topic for research:

How might non-invasive neuroimaging methods be used to measure the relative success of educational approaches? (Ansari, Coch & De Smedt in Patten and Campbell 2011, p. 42)

7.2 Let Me Offer a few Characterizations of What Is Envisaged

7.2.1 Offering Support (A Neuronal 'Explanation') for What Is 'Known'

In a second study we compared activations associated with fluid and non-fluid analogizing with letters, numbers and geometric shapes. We found overlapping patterns of neuronal activation between fluid and non-fluid analogizing in all formats. These results suggest that

74 P. Smeyers

analogizing is a basic cognitive process and therefore critical for successful school performance. We also found in frontal cortical working memory areas modest correlations between non-fluid analogizing, but not fluid analogizing, and general IQ test scores, suggesting that conventional IQ tests, not to mention school assessments, might not capture abilities of fluid analogizing which underpin creative thinking. Teachers have long suspected that IQ tests, although predictive of academic success, do not reveal all there is about a child's cognitive potential. Our findings, in supporting conjectures that the brain might develop separate working memory systems for general intelligence and fluid cognition offer an explanation of such skepticism. (Geake in Patten and Campbell 2011, p. 46)

7.2.2 Use a Way to Identify Brain Activity

Lee & NG (in Patten and Campbell 2011) report on investigations in their laboratory concerning heuristics commonly used for example to teach algebraic word problems (respectively the model method and symbolic algebra).

In our laboratory, we conducted two studies using functional magnetic resonance imaging (fMRI) and focused on the cognitive underpinnings of the two methods, ... All participants in our study were pretested for competency in the two methods: we selected only those who were highly and similarly competent. Ensuring behavioural equivalence allowed us to infer differences in neural activation in terms of processes involved in executing the two methods rather than differences in task difficulty. Despite the lack of behavioural differences, we found difference in the degree to which the two methods activated areas associated with attentional and working memory processes. In particular, transforming word problems into algebraic representation required greater access to attentional processes than did transformation into models. Furthermore, symbolic algebra activated the caudate, which has been associated with activation of proceduralised information. ... Findings ... suggest that ... Both methods activate similar brain areas, but symbolic algebra imposes more demands on attentional resources. ... If symbolic algebra is indeed more demanding on attentional resources, one curricular implication is that it is best to teach the model method at the primary level and leave symbolic algebra until students are more cognitively matured. (Lee & Ng in Patten and Campbell 2011, pp. 83–84)

Another example is the research by Koizumi:

Although acquisition of a second language from early childhood is not undesirable, our main concern is whether it has negative effects on the normal course of language development in one's native tongue. At present, there is no scientific data available on the relationship between language acquisition (both the first and second) and brain maturation. (Koizumi in Patten and Campbell 2011, p. 51)

7.2.3 Labelling 'Standard' Educational Research as 'Neuroscience' or 'Bolster Your Case' by Invoking 'Science'

There are for example the cohort studies on language acquisition, brain development and language education (Hagiwara, Tokyo Metropolitan University). Although their objectives to propose a guideline for second language learning and

education, especially for English, including the optimal ages and conditions surrounding it, is very interesting, they phrase this as 'a cognitive neuroscience-based guideline'.

7.2.4 Bring Frameworks Together

In most of these papers it is argued that bringing together frameworks respectively from educational research and from neuroscience will offer opportunities to deepen our understanding:

The driving force behind bridging mathematics education and neuro-sciences in this project is the prospect of combining knowledge from both research trajectories to contribute to early diagnostic practice and prevention. If we succeed in developing and comparing two valid measures for the development of kindergartner's mathematical ability, we may help to foster young children's early mathematical insights and to stimulate those children who could be prone to experiencing difficulties in their mathematical development. The earlier we may grasp children's mathematical learning trajectories, the more we can anticipate and furnish a supportive instructional setting, and the more we may be able to support the children in the development of their mathematical thinking and learning. (Van Nes in Patten and Campbell, p. 79).

In a similar voice Tommerdahl (2010), writes:

The paper supports the idea that the neurosciences have a role to play in education, but emphasises the distance and the complex relationships that exist between the brain sciences and proven teaching methods ready for the classroom. It is highly doubtful that any single given study in neurology will have a direct application to the classroom but, on a more hopeful note, it is almost certain that aggregations of findings from several studies, mediated through higher levels culminating in the behavioural and educational levels will indeed provide new teaching methodologies. (Tommerdahl 2010, p. 98).

She presents a model:

Five basic levels are offered in the model, the levels of *neuroscience*, *cognitive neuroscience*, *psychological mechanisms*, *educational theory*, and finally the *classroom*. For effective teaching methods which are based on neuroscientific findings and which are supported by a scientific evidence base, most or all of these levels of work, and possibly more in some cases, are necessary to their development. (Tommerdahl 2010, p. 99).

further she argues that:

... the separation between the terms *brain* and *mind* could perhaps more appropriately be seen as different perspectives of the same thing, much like the famous figure/ground images where a viewer can see either an old lady with a large nose or a young women's profile. (Tommerdahl 2010, p. 101)

Examples of this are:

In the field of bilingualism, brain scanning has shown there is a difference between bilinguals who learn a second language before age five and those who learn a second language at a later age. The first group processes their two languages in overlapping left hemisphere language centres while the second group calls more upon right hemisphere zones, working memory and inhibition areas when using their second language ... In mathematics fMRI [is used] to distinguish whether precise mathematical calculations and numerical estimations used identical or distinct brain areas. A dissociation was shown to exist which also allowed the researchers to postulate that linguistic systems were likely to be mediating the precise calculations while visual centres were implicated in the approximations. (Tommerdahl 2010, p. 106)

Similarly, Hardiman e.a. claim that

Although applying research from the neuro- and cognitive sciences to classroom practice certainly remains a challenge, interdisciplinary collaboration has yielded considerable educationally-relevant information about learning mechanisms that could not have been acquired solely through behavioural methods. (Hardiman e.a., 2012, p. 137)

7.2.5 Finally, "The Sky Is the Limit"

Since the emergence of dispositions and basic emotions are to a large degree autonomic and unconscious, they cannot be recognized nor stopped until they become conscious feelings. However, they can be attenuated and avoided in the future through emotion regulation by recognizing their emergence triggers and enacting preventive measured related to specific object and situations. . . . This model [Somatic Appraisal Model of Affect] identifies quintessential functions, components, and facets of affect necessary to provide a new research domain, namely educational neuroscience, with a basis on which to build a dynamic model of affect serving to challenge current pedagogy and inform and build a new praxis, called neuropedagogy. (Patten in Patten and Campbell 2011, p. 94)

7.3 Thus Far Some Aspects of the 'Emerging Field'. It Is Time to Make a few Observations and Comments

1. Tools that are used:

PET scan (Positron Emission Tomography): a radioactive isotope is injected which allows the amount of glucose being metabolised in the brain to become visible (indicative of the amount of blood in each part of the brain which in turn represents brain activity); provides an image of the working brain; disadvantages: the need for radioactive material, the high cost of use;

fMRI (functional Magnetic Resonance Imaging): measures blood flow in the brain; provides an image of the working brain;

EEG (electroencephalogram) shows cortical activity of the cortex in the form of electrical signals directly harvested from groups of thousands of neurons through electrodes placed on the scalp; no images of the brain, but instead detailed information about the time course of neural activity and indications of where brain activity is being carried out;

MEG (magnetoencephalogram) measures the magnetic field outside the brain caused by electrical activity; no images of the brain, but instead detailed information about the time course of neural activity and indications of where brain activity is being carried out.

2. The studies are correlational. It is often assumed that for instance fMRI techniques offer 'visual proof' of brain activity. However, as Narvaez and Vaydich argue, few studies test theories and most are primarily correlational.

Far too often readers assume that fMRI techniques enable researchers to capture 'visual proof' of brain activity, without taking into account the complexities of acquiring the data and processing the images. To ease the task of interpreting and reporting results, neuroimaging studies often highlight responses in specific brain regions; however, these regions are rarely the only ones that produced activity. Moreover, every human brain is distinctive, so the fMRI studies look at areas of agreement across brains, which often vary greatly. In fact, laboratories often use their own techniques to test and analyse the messy and inconsistent data across participants and trials. Due to limited knowledge, few studies test theories and most are primarily correlational. Moreover, correlative approaches, such as human brain imaging and psychophysiology, are not sufficiently robust to adjudicate what is 'basic about basic emotions' because 'autonomic physiology is regulated by generalized sympathetic and parasympathetic controls' which are not measurable through fMRI. Activation can vary for a range of reasons. (Narvaez and Vaydich 2008, p. 291)

Though aware of this, often nevertheless a particular conclusion is drawn in terms of the kind of research we need (granted, it comes with a warning as well):

Given the current state-of-the-art in brain imaging, most neuroimaging data are correlational and do not provide information about causation. As in all scientific enquiry, therefore, experimental design is crucial to how useful the data will be for contributing to research questions. For example, it is important to control for other factors that might be important for any correlations that are found, and to use control groups. ... When evaluating neuroscience research, it is important to be vigilant: correlations are still correlations, even when they involve physiological measures. Yet many correlational findings that reach the popular media are given causal interpretations. (Goswami 2008, p. 386)

3. Several philosophers have pointed to problems with the nature of the concepts that are used: for example they speak of a reductionism, or of a confusion of 'activity' and 'content'. Reference is made to Wittgenstein's position concerning the 'inner', and to Ryle's notion of 'category mistake', moreover to the issue of 'underdetermination'.

Purdy & Morrison refer to a remark from Ter Hark "measuring pain with a thermometer is to change the very concept of pain, since the uncertainty of the psychological attribute of pain cannot be reduced (Purdy and Morrison 2009, p. 104).

They also refer to Bennett and Hacker (2003) who, following the work of the later Wittgenstein, have asked whether we know 'what it is for a brain to see or hear, for a brain to have experiences, to know or to believe something'. That the brain thinks, believes, etc. is for them the result of a conceptual confusion. Thus they point to the separation of the inner and the outer

a 'mutant form of Cartesianism' where psychological attributes once ascribed to the mind, Descartes' immaterial *res cogitans*, are now ascribed unreflectively to the material brain instead (Purdy and Morrison 2009, pp. 105–106).

78 P. Smeyers

For them, the brain is not a logically appropriate subject for psychological attributes (the expression 'the brain sees' lacks sense, Bennett and Hacker refer to this as a case of explanatory reductivism).

Bennett and Hacker (2003) conclude by maintaining that it makes no sense to attribute psychological attributes to either the mind (Cartesianism) or to the brain (cognitive neuroscience). Instead psychological attributes must be ascribed to the whole person 'who is a psychophysical unity, not a duality of two conjoined substances, a mind and a body' (p. 106). Far from discrediting neuroscientific research, Bennett and Hacker simply argue that neuroscientists are often guilty of conceptual confusion in ascribing psychological attributes to the physical organ of the brain. (Purdy and Morrison 2009, pp. 105–106).

Purdy and Morrison (2009, p. 108) conclude therefore:

While neuroscience can reveal what is happening in the brain . . . the imagery is never more than a neural concomitant of that thinking. . .

Obviously, though nothing prevents scientists from using psychological expressions metaphorically, neuroscientists and cognitive scientists typically presuppose that they are using psychological expressions literally.

A corollary to this is the dependence of technical concepts on ordinary psychological concepts (which are not concepts of theoretical entities). Here the argument runs as follows: without our ordinary concepts the technical concepts from neuroscience would lack meaning. Moreover, though our ordinary concepts are interrelated by way of implication, compatibility and incompatibility this does not imply that these are theoretical (see Chap. 13, Bennett and Hacker 2003). For Bennett and Hacker therefore, neuroscience though it can contribute to the explanation of irrational action and forms of incapacitation, it cannot explain normal human behaviour (Bennett and Hacker 2003, p. 365).

A further step is the use of neuroscience concepts in the area of learning and education. Davis (2004)) discusses brain-based learning and points to articles presenting attempts to run together ideas about connectionism in the brain with 'connectionism' at the level of knowledge and learning. There, two types of connections are systematically conflated he argues: connections of a neurophysiological character that obtain in the brain during learning one the one hand, and connections made by learners between 'new' knowledge and resident knowledge on the other hand (Davis 2004, p. 25).

4. Unless the neurological mechanism that lies behind (and which is made explicit) could be directly influenced, it is not clear what the educational implications are which surpass those already available on the basis of relevant research in for example educational psychology. That neuroscience offers a description (or even explanation) in terms of neurological concepts and theories does not in itself warrant an *educational* surplus value. This remains to be argued and established. It is possible that the techniques, methods, concepts and theories of psychology will be replaced by those of neuroscience, in which case there could be some gain in our understanding of learning. This presupposes, however, accepting that the object of study of psychology coincides with that studied by neuroscience. And as dealt with in the previous point, this is doubtful.

Incidentally, responding to Schrag (2013), who asserts confidently that talk of brain lesions being mere concomitants of an inability to recognize faces, Davis (2013)) claims that this is too modest, i.e., the relevant neural states of affairs play a causal role in causing the inability (Davis 2013, p. 35). However, and interestingly, he draws attention to the *direction of causality*: "the very fact that certain patients stopped recognizing faces set in motion events that had specific effects on their brains . . . Such effects might have included the consequence that parts of the brain became 'atrophied' because they were not being used" (Davis 2013, p. 35) This matter is certainly along the lines of something Aldrich draws attention to:

brain structures are changed and adapted with each human activity. For example, in 2000 Eleanor Maguire examined the brains of 16 London taxi drivers via an fMRI scanner and found that the part of the brain responsible for spatial navigation, the right posterior hippocampus, was 7 % larger than normal, a significant difference. (Aldrich 2013, p. 397)

5. Concerning what is frequently argued for, i.e. 'bringing frameworks together', if this is supposed to be more than the expression of what is always true, it needs to be shown in what way this is helpful. What is argued for is only true if one of these provides information for example at an earlier time than the other one. There are examples of this, but they are scarce. Goswani argues along these lines and provides such an example: neural variables can be used to identify those who might be at educational risk. ("... a child may be at risk because aspects of sensory processing are impaired, and biomarkers could show the presence of the processing impairment before any behavioural symptoms have appeared.", Goswami 2008, pp. 394–395).

That complementary information is gathered and the outcomes interpreted against two different backgrounds (one predominantly using a quantitative approach and an experimental setting,³ the other qualitative data from a classroom-based 'design research') is not enough. Except for very specific cases, the gains of such an approach, i.e., 'bringing frameworks together' therefore remains doubtful.⁴

³ "Before the trials begin, the researcher fits a cap on the child's head with electrodes that register brain activity. This non-invasive EEG technique informs the researcher about the onset and duration of brain signals for particular stimuli and motor and perceptual responses. ANOVAs help determine differences in the brain activation and in the reaction times and additional analyses give more insight into the nature of interference and facilitation effects in the different experimental conditions." (Van Nes in Patten and Campbell 2011, p. 78)

⁴ Some authors remain nevertheless confident of such an approach: "With one research discipline set in a classroom environment and another that is based on a laboratory setting, the collaboration between the ME [Mathematics education component] and NS [Neurosciences component] research rests on studying the same children. The children who participate in the ME research are part of the larger pool of children who will also participate in the NAS research. In this way we hope to be able to compare children's phase of spatial structuring with the degree to which they automatically process quantities." (Van Nes in Patten and Campbell 2011, p. 78)

80 P. Smeyers

6. And then there is the further step to 'education', as implicit in for instance the idea that improved knowledge about how the brain learns should assist educators in creating optimal learning conditions—not to mention issues concerning desirable outcomes, in general educational content and processes. Some scholars realise that the possible contribution is limited:

In relation to education the indeterminacy of psychological attributes (such as understanding) is not removed by a computer-generated print-out of neural processing, because this form of measurement creates a quite different concept. ... Cognitive neuroscience may offer detailed pictures of neural networks, but, just as a thermometer fails to measure pain, so a brain scan fails logically to measure understanding: the concepts involved are simply different and the indeterminacy remains. Cognitive neuroscience therefore at best offers insights into the neural *concomitants* of thinking, but it offers no privileged access into the hidden world of the inner, that inner world being already manifest in external behaviour. Rather than representing a panacea to education, the cognitive neuroscientific enterprise in relation to education is therefore necessarily limited. (Purdy and Morrison 2009, p. 105)

Others seem to be inclined to forget, and proclaim the need for such an approach:

Cognitive neuroscience is important for education because it enables a principled understanding of the mechanisms of learning and of the basic components of human performance. It also enables componential understanding of the complex cognitive skills taught by education. Many of the principles of leaning uncovered by cognitive neuroscience might appear to support what teachers knew already. For example, aspects of pedagogy such as the value of multi-sensory teaching approaches or of crating safe and secure environments for learning are highly familiar. Nevertheless, cognitive neuroscience offers an empirical foundation for supporting certain insights already present in pedagogy and disputing others. The evidence from neuroscience is not just interesting scientifically. It enables an evidence base for education in which mechanisms of learning can be precisely understood. (Goswami 2008, p. 396)

7.4 Some Conclusions

For various reasons educational research has been eager to adopt psychology's methodology (paradigm and methods) and has embraced causality/probability with the predictability and the possible elements of manipulation that go with it (see Smeyers and Depaepe 2013). What has been argued for in general for psychology is no less true for the attraction of neuroscience. But before saying more about that, I will first deal with the crucial issue of what it is exactly that concepts of neuroscience can refer to.

What goes missing in any third-personal, physical description of brain states is, Bakhurst (2008) argues, the subjective dimension: "...all that is observable are the neural correlates of mental activity, not mental activity itself" (p. 422). To this he adds that from a personalist position, beginning from the premise that the human mind is a psychological unity, a person's mental states are not just a rag-bag collection of representations. "One way to put this argument about psychological unity is to say that brainism [the view (a) that an individual's mental life is

constituted by states, events and processes in her brain, and (b) that psychological attributes may legitimately be ascribed to the brain, p. 415] struggles to make sense of the first-person perspective. A person does not typically stand to her own mental states as to objects of observation" (p. 422). Our observing is always charged with agency: "But although a person does not relate to the contents of her mind as to objects of observation, her relation to her own brain states, as revealed, say, by MRI imaging, is one of observation. Thus what she observes when she observes events in her own brain can only be brain events correlated with, and enabling of, her mental life, not her mental life itself" (p. 423) To this personalism and following McDowell, he adds a distinctive view of human development: "As the child matures, however, she undergoes a qualitative transformation. She enters a distinctively human, essentially social form of life and acquires distinctively human psychological capacities that enable her to transcend existence in the narrow confines of a biological environment and to hold the world in view. With this, natural-scientific modes of explanation are no longer adequate to explain the character of the child's mindedness" (Bakhurst 2008, p. 423). And he continues: "The human mind constantly transcends its own limits; it does not simply apply old techniques to new problems. On the contrary, we set ourselves problems precisely to develop the methods to address them, a process that in turn uncovers new questions, creating new problem-spaces demanding further innovation and so on. To understand this dialectical process, we cannot represent the mind as determined by antecedent conditions" (Bakhurst 2008, pp. 423–424). Instead, as McDowell argues, human beings think and act, Bakhurst argues, in the light of reasons: "The relations in which rational explanation deals are normative in character. When I decide that Jack must believe that q because he believes (a) that p and (b) that p entails q, I am not making a causal claim. I am assuming that Jack believes what he ought to believe if he is rational" (Bakhurst 2008, p. 424). These sort of relations are not the sort of relations that are characterised by natural-scientific theories, they are different from what goes on in the brain which is exhaustively open to scientific explanation; mental states and processes occupy a different logical space—the space of reasons. Human beings inhabit a social world because their world is full of objects created by human beings for human purposes. For him psychological talk represents a fundamentally different discourse from talk of the brain. Obviously, brain science can illuminate learning in the explanation of dysfunction, deficit and disorder, he argues (a matter often referred to in the literature, see for example, Davis 2004, p. 22): "Once we adopt the causal perspective on the child's problems, we cease to see her as a rational agent, at least in this respect, and absolve her from responsibility, and hence blame, for her failings" (Bakhurst 2008, p. 426). According to Bakhurst brain science can moreover illuminate why someone is especially good at some practice (he refers to speed of thought as an example of causal preconditions of rational powers). Thus he concludes that as there is as much reason to avoid crass biological determinism as there is to eschew a priori nurturism, there "are no a priori grounds to declare brain science irrelevant to educational issues, or relevant only in 'deficit' cases" (Bakhurst 2008, p. 428); "What is critical, however, is that interest in the brain should not distract attention 82 P. Smeyers

from the fact that education is a communicative endeavour, not an engineering problem. Education is not about getting information into students' heads or of implanting skills in them"... Once again, information and skills are not all that is at issue. Machines may possess those, or close surrogates, but machines have no practices and crafts (Bakhurst 2008, p. 428).

If Bakhurst's position carries weight, it is doubtful that a lot may be expected from what is frequently argued for in the neuroscience subdiscipline, i.e., 'combining frameworks'. Do they make a mountain out of a molehill? The so-called frameworks that have to be brought together are fundamentally different. Moreover, there is something strange going on in the debate about neuroscience and education: the methods that are used are correlational, i.e. the tools measure indirectly brain activity, there is conceptual confusion in more than one sense,⁵ and yet the proponents do not stop to argue that a lot can be expected from such an approach.

This is not to say that in some cases indeed relevant insights for education can be offered. Here are two examples given in a study by Sigman, Peña, Goldin, Riberio:

Neuroscience research has developed signatures that may serve to diagnose cognitive impairments potentially earlier than would be conceivable by behavioural or psychological inspection. A paradigmatic example is the detection of otoacoustic emissions in neonates, a tool that helps identify congenital deafness. Traditional detection by psychological tests can only be made months after birth, missing a window of opportunity for early interventions. (Sigman e.a., 2014, p. 498)

The diagnosis of dyslexia is typically made in children aged 7–8 years old, when population variability in reading scores becomes evident. However, interventions to remediate dyslexia are much more likely to be successful when conducted on children who are beginning to read or even before reading if they are based exclusively on improving auditory processing. As with many other medical conditions, early diagnosis is a fundamental aspect of remediation. The development of neurophysiological markers of later dyslexic developments are therefore of great practical relevance... the ... study ... found that, as early as birth, infants with and without familial risk for dyslexia differ in ERPs [event-related potentials] to linguistic stimuli. ... Taken together, these studies indicate that ERPs measured during infancy might help to screen for problems in reading-related skills, serving as an indicator or risk of impaired auditory/speech processing. (Sigman, e.a., 2014, p. 500)

Francis Schrag (2011)) offers a more subtle position when dealing with the possible contribution of neuroscience. He too starts from the validity neuroscience

⁵ "Psychological predicates are predicates that apply essentially to the whole living animal, not to its parts. It is not the eye (let alone the brain) that sees, but *we* see *with* our eyes (and we do not see with our brains, although without a brain functioning normally in respect of the visual system, we would not see). So, too, it is not the ear that hears, but the animal whose ear it is. The organs of an animal are part of the animal, and psychological predicates are ascribable to the whole animal, not its constituent parts. Mereology is the logic of part/whole relations." (Bennett and Hacker 2003, pp. 72–73). Bennett & Hacker term the neuroscientist's ascription of psychological attributes to the brain 'the mereological fallacy' in neuroscience. They also point to what the neuroscientist is seeing: "What one sees on the scan is not the brain thinking... nor the person thinking... but the computer-generated image of the excitement of cells in his brain that occurs *when* he is thinking." (Bennett and Hacker 2003, pp. 83–84)

at first sight may have as it "discovers more and more about the mechanisms of learning and memory" (pp. 222–223) but claims that "From the teachers' point of view, knowing which brain structures are involved adds nothing to the success of the strategies" (ibid., p. 226). He envisions that the ongoing research which is offered by cognitive neuroscientists is "... yielding continued progress in understanding neural processes at the micro level, an understanding that will be translated into interventions designed to affect micro level processes in order to reduce cognitive deficits and enhance performance at the macro level" (ibid., p. 236). Strangely enough, he is not convinced that we need philosophers "...to tamp down the enthusiasm of neuroscientists who may be all too ready to launch bandwagons declaring that their research will show the way to the holy grail of educational transformation? The answer here is clear: we do not. In fact those at the new frontier are very aware of the limitations of their work and of the propensity of less skilled disciples to mislead the rust of us" (ibid., p. 228). This may be the case for some, in general I do not think that this is a truthful picture of what the educational researchers working in this area aspire to. Here are some examples:

In the introduction to a special issue of the *International Journal of Science and Mathematics Education* (2014, 3) Anderson, Love & Tsai write:

Perspectives on possible future approaches and challenges in reaching the goals of a neuroeducational theory are presented, including applying new techniques such as eye-tracking. EEG, and fMRI analyses to further understand individual differences in student brain functions while performing some typical cognitive functions in math and science learning, such as problem solving, self-directed learning, and interaction with digital-based learning environments. (p. 468)

And introducing the article by Liu Chang in that issue they say that these authors "...offer science educations some neuroscience-backed information as a foundation to develop results-oriented curricula and teaching methods" (Anderson et al. 2014, p. 471). And his own article in the special issue Anderson writes: "The opportunity for merging neurosciences with modern digital technology design theory and best delivery practices is clearly significant and likely to be highly productive in advancing the efficacy of these learning environments" (Anderson, 2014, p. 476). Of course, he starts from "There is much to be gained by beginning with an assumption that the human brain is a functional systemic unit (though modular based) in processing and responding to complex information" (ibid., p. 482)—which embraces precisely what was criticized above (i.e., a confusion at the conceptual level). For him it is all very clear: "The more we understand the physiological bases for individual differences in learning, the more likely we can develop effective ways of maximizing the individual learning potentials of our students." (ibid., p. 488). Others focus on what neuroscience insights can do for teachers, thus for example Hook & Farah argue in Neuroethics "Our evidence indicates that educators use neuroscience to maintain patience, optimism and professionalism with their students, to increase their credibility with colleagues and parents, and to reinforce their sense of education as a profession concerned with shaping students' brain development. None of these motivations presupposes an unrealistic view of neuroscience or neuroeducation" (Hook and Farah 2013, P. Smeyers

pp. 339–340). And in the *Educational Researcher* Dubinsky, Roehrig & Varma argue that: "... teachers benefit from additionally understanding the neuroscience of learning and memory.... Neuroscience has the unique feature that it provides the neurobiological basis for learning, thus allowing discussions about student learning to occur within a scientific, psychological, and pedagogical context" (Dubinsky et al. 2013, p. 320). For these authors "Knowledge of the biological basis of learning and memory and the inherent plasticity of this intricate system gave teachers a more positive attitude towards each student's ability to change and learn" (ibid., p. 324) and moreover "... teaching neuroscience to students can increase their self-understanding, self-efficacy, motivation and metacognition" (ibid., p. 327).

Let me summarize: there are many problems with the un-qualified message or promise of neuroscience related to educational research and the educational field, first of all at the level of the concepts that are used ('brain' versus 'mind'). Further, though there may exist a correlation between some mental phenomena and neurophysiological states, the latter are neither necessary nor sufficient for the phenomena, what we need instead if one wants to pursue this line of research is an explanation in terms of the mechanism (or mechanisms) that is/are at stake, in other words a causal explanation. Harré and Tissaw (2005) distinguish first person expressive talk (for example thinking, believing, happiness etc.) from third person descriptive talk (for example brain activity) and label and categorize the distinction between the grammar of first-person expressive talk and third-person descriptive talk as the asymmetry principle. This is ignored when one speaks about and localizes the former (psychological terms, intentional terms and sensations) 'in the brain'. Another way to identify what is happening may be called the transgression from the mentalist mind-body approach to the materialist brain-body approach. Moreover, according to its own paradigm (means-end) clearly, there are hardly studies which show educationally relevant effects (not to mention the underdetermination problem). And finally, there are quite a few decisions (for example ethical) educators have to take for which neuroscience cannot deliver the necessary insights. All of this may lead to the conclusion that there is not a lot to be expected from the so-called knowledge exchange between the disciplines of education and neuroscience, i.e. if one accepts that there is a difference between on the one hand causality/probability/contingency and freedom/choice/responsibility/ regret/remorse on the other hand. We should I think do away with talking about 'brain behaviour' or consciously perceive and alter one's own brain processes to give just two examples; and perhaps also with mustering evidence and rationale of neuroscience research to funding agencies traditionally supporting educational research.

Clearly, neuroscientific explanations have a particular seductive character. Evidence for this can be found in a 2008 article by Weisberg, Keil, Goodstein, Rawson, and Gray who discuss an experiment they have set up concerning the seductive allure of neuroscience explanations. Explanations with logically irrelevant neuroscience information had a particularly striking effect on non-expert's judgments of bad explanations. So why is it then that neuroscience is so attractive? Interestingly,

one may be tempted to find an answer in the discussion this field offers itself when discussing certain so-called neuromyths of which examples are that one only uses a fraction of one's brain, namely 10%, or that people are rather right- or left-brained. There is even a specific label coined for this; neurophilia (the appetite for neuroscience). Pasquinelli (2012) discusses several issues of neuromyths (the misconceptions about the mind and brain functioning) such as the origin, persistence and potential side-effects in education. There is according to her in the media "the tendency to offer irrelevant information, sensationalism, and the omission of relevant information" (Pasquinelli 2012, p. 90). She also refers to the biasing effect of images: "because neuroimages appear as compelling as eyewitness, they are persuasive" (Pasquinelli 2012, p. 91). Thus she argues: "The ignorance of basic facts about the making-of of brain images can mislead the layperson into believing that an image of the brain is sufficient to prove the existence of a mental state—an attitude described as 'neurorealism'" (Pasquinelli 2012, p. 91). And she refers to the blossoming of projects, reports and studies on the social, political, and educational implications of neuroscience, looking in the latter field for guidelines and/or easy fixes for education. She talks about the example of Brain Gym (based on the idea that when different parts of the brain do not work in coordination learning can be impaired), and argues that though there is no evidence that its exercises are effective, they are globally well received in the domain of education (Pasquinelli 2012, p. 92). It is therefore really disappointing to find towards the end of the paper as an answer to the question what actions one can take, only that "knowledge must be pursued, conveniently disseminated, and taught" (Pasquinelli 2012, p. 93) ending with the mantra "From this collaboration [an effective interbreed between science and applicative domains (such as education)], compelling theories and practices can see the light that are at the same time true of science and meaningful for educators" (Pasquinelli 2012, p. 94).

Granted, neuroscientific studies can eradicate mistaken views about how the brain works. But that does not go very far to justify a legitimate educational interest not to mention what needs to be done in educational contexts. It does not justify the direction a lot of educational research has taken, not to mention the amount of money that is made available. It may be a field that merits interest on its own strengths, surely there are so many areas which are interesting. But it should not be 'sold' as highly relevant for education. Indeed, something very remarkable is going on there: never mind the possible problems, we are aware of that, so let's continue 'business as usual', and therefore the mantra sounds 'a lot may be expected from this field!' It is easy so see how educators may be tempted to find an easy fix for educational problems, overwhelmed by neurorealism and the aura of doing real science offering the prestige that goes with it and the so-called expertise demanded for by educators and no less by parents. My arguments have been directed against such a neuromyth, which I offer as a reminder that education, including educational research and the discipline of education, should reclaim its territory.

P. Smeyers

References

Aldrich, R. (2013). Neuroscience, education and the evolution of the human brain. History of Education, 42, 396–410.

- Anderson, O. R. (2014). Progress in application of the neurosciences to an understanding of human learning: The challenge of finding a middle-ground neuroeducational theory. *International Journal of Science and Mathematics Education*, 12, 475–492.
- Anderson, O. R., Love, B. C., & Tsai, M.-J. (2014). Neuroscience perspectives for science and mathematics learning in technology-enhanced learning environments. *International Journal of Science and Mathematics Education*, 12, 467–474.
- Bakhurst, D. (2008). Minds, brains and education. *Journal of Philosophy of Education*, 42, 415–432.
 Bennett, M. R., & Hacker, P. M. S. (2003). *Philosophical foundations of neuroscience*. Malden: Blackwell Publishing.
- Davis, A. (2004). The credentials of brain-based leaning. *Journal of Philosophy of Education*, 38, 21–35.
 Davis, A. (2013). Neuroscience and education. At best a civil partnership: A response to Schrag. *Journal of Philosophy of Education*, 47, 31–36.
- Dubinsky, J. M., Roehrig, G., & Varma, S. (2013). Infusing neoroscience into teacher professional development. *Educational Researcher*, 42(6), 317–329.
- Elliott, J. (2006). Educational research as a forum of democratic rationality. *Journal of Philosophy of Education*, 40, 169–185.
- Geake, J. (2008). Neuromythologies in education. Educational Research, 50, 123-133.
- Glock, H.-J. (1996). A Wittgenstein dictionary. Oxford: Blackwell Publishers.
- Goswami, U. (2008). Principles of learning, implications for teaching: A cognitive neuroscience perspective. *Journal of Philosophy Education*, 42, 381–399.
- Hardiman, M., Rinne, L., Gregory, E., & Yarmolinskaya, J. (2012). Neuroethics, neuroeducation, and classroom teaching: Where the brain sciences meet pedagogy. *Neuroethics*, 5, 135–143.
- Harré, R., & Tissaw, M. (2005). Wittgenstein and psychology. Burlington: Ashgate.
- Hook, C. J., & Farah, M. J. (2013). Neuroscience for educators: What are they seeking, and what are they finding? *Neuroethics*, 6, 331–341.
- Jensen, E. (2008). Brain-based learning: The new paradigm of teaching. San Diego: Corwin Press. Liu, C.-J., & Chiang, W. W. (2014). Theory, method and practice of neuroscientific findings in science education. International Journal of Science and Mathematics Education, 12, 629–646.
- Narvaez, D., & Vaydich, J. L. (2008). Moral development and behaviour under the spotlight of the neurobiological sciences. *Journal of Moral Education*, 37, 289–312.
- Pasquinelli, E. (2012). Neuromyths: Why do they exist and persist? *Mind, Brain, and Education*, 6, 89–96.
- Patten, K. E., & Campbell, S. R. (Guest Eds.). (2011). Educational neuroscience. *Educational Philosophy and Theory*, 43(1).
- Purdy, N., & Morrison, H. (2009). Cognitive neuroscience and education: Unravelling the confusion. *Oxford Review of Education*, *35*, 99–109.
- Schrag, F. (2011). Does neuroscience matter for education? Educational Theory, 61, 221-237.
- Schrag, F. (2013). Can this marriage be saved? The future of 'neuro-education'. *Journal of Philosophy of Education*, 47, 20–30.
- Sigman, M., Peña, M., Goldin, A. P., & Riberio, S. (2014). Nature Neuroscience, 17, 497-502.
- Smeyers, P., & Depaepe, M. (Eds.). (2013). *Educational research: The attraction of psychology*. Dordrecht: Springer.
- Tommerdahl, J. (2010). A model for bridging the gap between neuroscience and education. *Oxford Review of Education*, *36*, 97–109.
- Wagemans, J. (2011). Weg met de psychologie? [Away with psychology?]. *Karakter. Tijdschrift van Wetenschap, 36*, 14–15.
- Weisberg, D. S., Keil, F. C., Goodstein, J., Rawson, E., & Gray, J. R. (2008). The seductive allure of neuroscience explanations. *Journal of Cognitive Neuroscience*, 20, 470–477.
- Wittgenstein, L. (1953). *Philosophical investigations/Philosophische Untersuchungen* (trans: Anscombe, G.E.M.). Oxford: Basil Blackwell.

Chapter 8 On the Plurality of Mathematics Discourses: Between Power and Constraints

Karen François, Kathleen Coessens, and Jean Paul Van Bendegem

8.1 Introduction

Many researchers from the research field of philosophy of mathematics and of mathematics education discuss the nature of mathematics and its implications on the way(s) mathematics is handed down from one generation to the other. These implications are studied from different perspectives by mathematics educators, anthropologists, philosophers of mathematics, ethnomathematicians, linguists, ... and they are studied in different cultural settings.

It is exactly in this intercultural setting that most questions arise about the nature of mathematics. Barton (1999)—who is studying Maori mathematics in New Zealand—is questioning the possibility of the simultaneous existence of culturally different mathematics. Based on his experiences in Maori classroom settings he discovered how mathematics education seemed to be a vehicle that led to the subtle corruption of Maori culture. Implementing Western Academic Mathematics (WAM in what follows) in specific cultural setting works like—what he calls—'the Trojan Horse' (Barton 2009).

Past decade we witnessed a fierce debate on the nature of mathematics; a debate that was mainly conducted in the journal *Educational Studies in Mathematics* (ESM). Adam et al. (2003) defend the position of the non-essentialists as a critique of the views of Rowlands and Carson (2002, 2004) who advocate an essential position re the nature of mathematics. Although mathematical knowledge is constructed by human beings, the invariant essence is repeated in all mathematical varieties of knowledge. To Rowlands and Carson (2004) mathematics, and rationality in general, exist per se as a body of knowledge that is disconnected from the

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social, political and cultural environment. They argue for the superiority of modern, abstract, formalized mathematics because its stunning advance over other mathematical practices of any ancient traditional culture. Furthermore they consider WAM as a universalized part of culture and as a universal language that is foreign to all students. As a consequence they plea for a universal mathematics education regardless of the specific cultural setting. Many researchers defended opposite positions especially when it comes to the practice of mathematics education and the governmental policy on educational programmes.

Pais (2011) who argues from an epistemological perspective against the conception of a universal nature of mathematics, brings a new topic in the discussion. He analyses the relativistic position in mathematics education—expressed as 'all mathematical practices are equal'—as based on the existential foundation of squeezing the Other 'from its otherness'. Furthermore Pais (2011) questions the central goal of education in terms of hegemony and of domestification (a concept borrowed from Slavoj Žižek). Within the context of a hegemonic capitalist economy and ideology Pais puts the question if we all want "schooling to serve the needs of industry and commerce?" (Pais 2011, p. 219). Pinxten and François (2011) took position in these recent debates. They went beyond the big ontological universalism-realism debate, to focus on the mathematical practices and the real ethnomathematics. Pinxten and François (2011)ethnomathematics to be a generic category of mathematical practices, with Western academic mathematics as a particular case. Based on the analysis of D'D'Ambrosio (1990)) who uses the notion 'ethno' as the very different and diversified cultural environments in the diverse ethnos, they argued that Western mathematics is also considered as having been developed within a particular contextual reality. The body of WAM itself cannot be understood or taught separately from its cultural environment and power mechanisms (François and Van Kerkhove, 2010).

In this article we will investigate two questions that arose from the debate on the nature of mathematics. The first question is about the plurality of mathematics as originally posted by Barton (1999) as the question 'whether the simultaneous existence of culturally different mathematics is possible'. The second question is about mathematics as a means of power.

In order to investigate the questions on the plurality of mathematics we will use a theoretical toolkit that borrows the concepts of 'language games' and of 'family resemblance' from Wittgenstein (1971). The analysis of mathematics as means of power will rely on the theoretical tools and the concepts of 'discourses' and of 'disciplining' borrowed from Foucault (1966, 1981) and the concept of vertical and horizontal discourses, and recontextualisation from Bernstein (1999, 2000). The next section introduces the concept of 'skeleton' as an important identifier of WAM.

8.2 On the Plurality of Discourses on Prime Numbers

Imagine reading the following story (no sources given):

"And so it was told that the joyous number of primes, those delicious things only to be divisible by one and themselves, is to be finite. Little did they know how they were erring. How could they not dream up the superb number that is to be created by multiplying them all and, see how the genius manifests itself, adding the one? Blind for the love of the number perhaps? For you see, the superb number is prime itself or it is not, for here the one or the other says it all and surely the one cannot be the other for then all difference would disappear. But, if the first, then it is surely larger than all what is given as the primes and, yes, so they were erring. But so do they err in the second, poor lost souls, for do they not see, still blind for the love of the number, that the superb must contain primes other than the ones given. The one that has been added, will be the glorious one that remains and so it cannot divide. Ah, see how beautifully and knowingly they tear up the list, having realized that it will never be completed unless the glance of infinity will shine onto them."

I assume it is clear to every reader that this curious piece of writing is about mathematics (as it is). But something is definitely 'wrong' (if that is the right word to use), for it does not correspond to the textbook kind of mathematics, most likely if not most certainly it does not correspond to how we have learned mathematics at school. Rather it seems to be some ancient kind of mathematics—a bad translation of a hieroglyphic original? some old Mesopotamian clay tablet?—where the differences and divisions between the mathematical, the religious, and the literary have not yet been made. In terms of discourse, this is clearly another kind of mathematics discourse than we are used to today. And I am quite convinced that, if this text were to be shown to a mathematician, he or she would initiate the following process:

"And so it was told that the joyous number of primes, those delicious things only to be divisible by one and themselves, is to be finite. Little did they know how they were erring. How could they not dream up the superb number that is to be created by multiplying them all and, see how the genius manifests itself, adding the one? Blind for the love of the number perhaps? For you see, the superb number is prime itself or it is not, for here the one or the other says it all and surely the one cannot be the other for then all difference would disappear. But, if the first, then it is surely larger than all what is given as the primes and, yes, so they were erring. But so do they err in the second, poor lost souls, for do they not see, still blind for the love of the number, that the superb must contain primes other than the ones given. The one that has been added, will be the glorious one that remains and so it cannot divide. Ah, see how beautifully and knowingly they tear up the list, having realized that it will never be completed unless the glance of infinity will shine onto them."

What we are left with now, is what I propose to call the *skeleton* of the text. It keeps only those bits and pieces that we today consider to be mathematical and it

¹ The text is actually part of an introduction that one of us, viz. Jean Paul Van Bendegem, was invited to write for a catalogue on the occasion of an exhibition of works of Antony Gormley. See Van Bendegem (2013). Part of the work of Gormley deals with frames or, as it called here in this section, 'skeletons'. A nice example of art inspiring the philosopher.

90 K. François et al.

only takes a little bit of rewriting to obtain the present-day proof of the infinity of prime numbers:

"Suppose the number of primes is finite. Form the number by multiplying all of them and adding one. That number is either prime or not. If the first is the case, then we have a prime larger than the ones given. If the second is the case, then that number must have prime factors different from the given ones because the number is not divisible by any of them as the remainder will be one. Hence the number of primes is infinite."

Note that I purposefully avoided the use of symbols but, once that is allowed, the skeleton becomes even more economical:

"If the primes are finite, we can list them: p_1, p_2, \ldots, p_n . Form the number $N = p_1.p_2...p_n + 1$. If N is prime then $N > p_i$ for all i. If not, then N has prime factors different from all p_i , as N leaves 1 as remainder. OED"

The skeleton-idea makes it possible to formulate a rather strong thesis: A piece of text is only to be considered to be a *mathematical* text (and therefore part of WAM) if it contains a skeleton text. Note that 'to contain' has to be understood in broad terms. The example given above is probably one of the simplest forms imaginable, namely deleting parts of the given text. 'To contain' can involve complex procedures such as extracting a skeleton proof from an algorithm. A simple example: to find out whether a natural number n, larger than 1, is prime or not, the following algorithm will do:

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"For k = 1, ..., n, and D = 0
Calculate q = n/k
If q integer then D = D+1
Next
If D = 2 then n prime
STOP"
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The skeleton here is the mathematical 'fact' that a prime number has exactly two divisors, 1 and itself.² D in the algorithm is nothing but a counter of divisors.

A few arguments in support of the thesis are:

• (*Recognition argument*) Present-day WAM comes with foundations, the current one being (some form of) set theory.³ Hence there is the possibility of recognizing a skeleton proof,

² This is by the way the most obvious reason to exclude 1 as a prime number as it has only one divisor (and is the only number to do so). The other reason is that the unique decomposability of natural numbers would cease to be the case if 1 were allowed to be a prime number. For 6 would not only equal 2 . 3 but also 1 . 2 . 3, 1 . 1 . 2 . 3 and 1 . 1 . 1 . 2 . 3, . . .

³ Most handbooks present ZFC, the Zermelo-Fraenkel version of set theory, with the axiom of choice, an essential tool for mathematicians today. But alternatives abound: NF, New Foundations, formulated by W.V.O. Quine, intuitionistic set theory, constructivistic set theory, BNG, the Bernays-Von Neumann-Gödel formulation, and so forth. Not to mention the 'real' alternatives such as category theory and, more recently, homotopy type theory. To a certain extent, the resistance that is often met when someone proposes to alter the foundational theory, can be

- (*In principle argument*) Mathematicians have no objection to use the expression 'in principle'. Even in cases where it is not clear at all how the skeleton proof can be extracted from the given text, it is nevertheless assumed that 'in principle' the proof is there somewhere, ⁴
- (*Infinite regress argument*) A skeleton text avoids infinite regress. If there were no such thing, one text after another could be extracted from a given text, maybe even leading to (vicious) circles.
- (Metamathematical argument)⁵ The domain of metamathematics is itself mathematized to a very high degree, hence the thinking of mathematics about itself is itself part of mathematics. 'Skeletons' are used in a sense to study 'skeletons', as, e.g., in formal proof theory.

There are some quite important consequences to be drawn out of this thesis:

- (Formal-informal distinction) It explains the distinction that is often made between formal and informal proofs. Roughly speaking, the formal proof corresponds to the skeleton proof and an informal proof is a text that contains the skeleton proof. In that sense it need not be a problem that informal proofs are often vague and ambiguous as it can always be 'in principle' skeletonized (to introduce a neologism),
- (Street mathematics is no mathematics) It explains why there can be discussion about whether some piece of mathematics is to be considered to be mathematics or not. The case of street mathematics is an excellent illustration, as are many forms of ethnomathematics.⁶ As there is hardly any talk of proofs, let alone of skeletons, this type of mathematics cannot be skeletonized and hence is not considered to be proper mathematics. But if we look at mathematical education in the West, we see that there are enough skeletons present to see it as a stepping-stone towards the 'real' thing,

explained by the fact that changing the skeleton is the most fundamental act thinkable, hence it needs to be resisted.

⁴ We will not develop this argument any further but just one remark: the 'in principle' attitude goes perfectly well together with mathematics itself. Many of the proofs in mathematics show that some entity x exists—"There is an x such that so-and-so"—without however indicating how the x can be found or calculated. This is often considered to be the 'theological' side of mathematics, expressed most famously by Paul Gordan: "This is not mathematics, this is theology!", referring to an existence proof of the kind just described.

⁵ Thanks to the participants of the conference who gave us this idea that reinforces the importance of the concept of 'skeleton'.

⁶ Streetmathematics is identified as reasoning about number and space in every day practices. This informal way of reasoning is studied in Western cultures and non-Western cultures (e.g. indigenous mathematical practices) and it focusses on both, adults and (street)children (Mesquita et al. 2011). Streetmathematics is considered as a form of mathematics constructed and used outside of the established institutions of mathematical production and of mathematics education. Nunes et al. (1993) provide a systematic analysis of mathematics used 'in school' and 'out of school'. They identified these two forms of activity as different cultural practices that are based on the same mathematical principles.

92 K. François et al.

• (*No mathematics in action*) In cultures where the mathematics is present not in writing but integrated in actions, where there is no explicit written form to be found but a set of practices that can be considered to be mathematical, this will not be seen as a form of proper mathematics for an adherent of the thesis, as no skeletons are to be found,

• (*The unity of mathematics*) If we can reduce all texts to their skeletons and we only look at the skeletons, then, since skeletons are easily comparable with and translatable into one another (otherwise the search for a skeleton has not reached an end), the set of skeletons will form a unified whole, thus further 'closing off' the professional mathematics we know today as *the* mathematics.

Expressed in formal terms, if the thesis holds up, the discourses in (academic) present-day mathematics can be characterized as follows: (a) there are many discourses D_1, D_2, \ldots, D_n present (in and about mathematics), (b) discourses can be distinct, $D_i \neq D_j$ for different i, j, but (c) all discourses D_i contain a skeleton S. A discourse D that does not satisfy (c) is thereby not a mathematics discourse. As said, one should not be surprised that forms of street mathematics and ethnomathematics are not considered to be mathematical. This implies that, if we want to elaborate a view of mathematics that does include such forms, then the idea of the skeleton and the skeletonizing has to be abandoned. The straightforward objection will of course be that, if we drop condition (c), what can the connection be between all the different discourses D_i ? An important clue pointing towards an answer to that question, is to be found in this quote:

The concept of *informal proof* is to be regarded as both vague and ambiguous, and it even seems appropriate to use Wittgenstein's concept *family resemblance* to describe relations between different kinds of informal proofs. (Sjögren 2010, 449)

Is it not tempting to replace 'proof' by 'mathematical practice'? This would lead to a completely alternative thesis: A given practice is to be considered a mathematical practice if a family resemblance can be established with practices that are already accepted as mathematical practices. This raises two important questions: (a) where do we start?, and (b) what do family resemblances look like? As to (a), note that several answers are possible. There is no need to take WAM as the starting point. A chronological perspective is a perfect possibility: start with the oldest cultural practices known to us and see whether these can be considered to be

⁷ One would expect that this connection between mathematical practices and family resemblances should be clearly present in Wittgenstein's *Remarks on the Foundations of Mathematics*. In a sense, one is correct to assume this but, in another sense, it is rather surprising that *explicit* mentions of the connection are very hard to find. Only a few paragraphs seem to come close, most clearly this one: "I have asked myself: if mathematics has a purely fanciful application, isn't it still mathematics?—But the question arises: don't we call it 'mathematics' only because e.g. there are transitions, bridges from the fanciful to the non-fanciful applications? That is to say: should we say that people possessed mathematics if they used calculating, operating with signs, *merely* for occult purposes?" (Wittgenstein 1956, 399) Note that Wittgenstein himself is using another vague notion, namely "being fanciful".

mathematical or not. Although of course the problem will then be how to decide that problem. Does Stonehenge express in one way or another some mathematical practices? Is collective singing a form of mathematical practice? Are paths created in the woods forms of mathematical practices? To suggest that, where patterns are present, some mathematics is present, is not really solving the problem for to avoid a skeleton thesis for patterns, it is best to consider patterns as a vague and ambiguous concept and hence it invites us to approach this concept through family resemblances as well. This leads to a curious conclusion: it seems that it is not an easy, if not an impossible task to delineate what is to be considered mathematical. The boundaries of the mathematical world are vague and, for sure, cannot be restricted to WAM as we know it today. Seen from this perspective, the skeletonizing of discourses is a strategy to resolve this vagueness.

The above is of course perfectly compatible with a strategy to take a limited set of practices that (nearly) everyone agrees upon that it is to be considered mathematical and then work from there towards other practices. A possible strategy is precisely to use the power of discourses and the set of transformations that can be applied to them. It implies that all the texts in the beginning of this section will be considered to be mathematical. It also implies that it need not be a difficult task to move from these discourses towards street mathematics discourses. Or to move from the mathematical to the non-mathematical, e.g., the artistic. We can put this to the test immediately. Would you consider the following to be a mathematical text or discourse?

"Suppose the nurture of prints is finite. Form the nurture by multiplying all of them and adding one. That nurture is either print or not. If the fistful is the casket, then we have a print larger than the ones given. If the secretion is the casket, then that nurture must have print faints different from the given ones because the nurture is not divisible by any of them as the remit will be one. Hence the nurture of prints is infinite."

This text was generated through a technique invented by the members of the OuLiPo. 9 It consists of a simple algorithm that can be applied to any text: replace every noun in the text by a noun that is the n-th noun in an arbitrary dictionary after the first. In this case n=9. In terms of transformations the result is, grammatically speaking, extremely close to the skeleton proof. Yet, if the original or the source of the transformation is unknown, it requires much more effort than the text at the

⁸ This does not mean that WAM is therefore excluded. It just becomes one member of the family. The analysis presented here should not be read as a rejection of, e.g., rigorous and axiomatized mathematics, but rather as its recognition as one possibility among many.

⁹ The OuLiPo (Ouvroir de Littérature Potentielle) is a group of writers, originally centred around Raymond Queneau, mathematician and writer, author of *Zazie dans le métro*, and Georges Perec, best known for his novel *La disparition*, where throughout the text the letter 'e' is missing. In a nutshell, their ambition was to use mathematical algorithms to generate texts that would not be necessarily interesting in their own right but might be inspiring for further literary work. For more details, especially related to mathematical style and rhetorics, see Van Kerkhove & Van Bendegem (2014).

94 K. François et al.

beginning of this section to see what it is about and that it is indeed mathematical, although hardly recognizable as such.

Although what we have presented here is just a rough sketch of what a Witt-gensteinian approach to mathematics discourses in terms of family resemblances could look like, one thing is clear: in contrast to the skeleton approach, we will have to deal with vagueness on all levels, with ambiguity, with debatable cases, ..., and one might think that the skeleton view is not that bad after all. But the counterargument is that clear and unambiguous discourses with fixed boundaries hardly ever lead to change, whereas vague discourses leave plenty of room for transformation

But let us now zoom out and consider the broader discussion on the plurality of mathematics.

8.3 Plurality and Family Resemblances

The first question re the plurality of mathematics brings us to a central discussion of the existence, apart from WAM, of many different sorts of ethnomathematics and of their respective values.

Knijnik (2012) refers to the later work of Wittgenstein (1971) to explain the existence of varieties of ethnomathematics (including WAM). Wittgenstein abandons the essentialist concept of language and therefore denies the existence of a universal language. Languages immerse in (a) form(s) of life, in a cultural or social formation and they are embedded in a totality of communal activities. This idea gave rise to the notion of understanding rationality as an invention or as a construct that emerges in specific local contexts. Barton (2009) analyses mathematics as indeed created in our mathematical talk which means that each time we use a mathematical term the concept or the relationship is being remade. Barton's (2009) analysis is also based on the later work of Wittgenstein (1971) and the interpretation by Shanker (1987). Mathematics is being considered as a language which is constantly generating and creating (more complex) meaning and understanding during mathematical communication. A nice example is the concept of prime which we elaborated on in the previous section—that generates a continuous growth of meaning and understanding. At first, a pupil learns, uses and understands the concept of prime with a limited meaning (e.g. as one of the numbers like 2, 3, 5 or some others). Later on, when the pupil continues to use the concept, it can create new and broader meanings (e.g. based on historical background) of prime as a series of numbers to be detected by a simple algorithm.¹⁰

If we understand mathematics as arising from communication and from language, then we can consider mathematics as a language with different concepts that

¹⁰The ancient algorithm is better known as the 'sieve of Eratosthenes' (276-194BC). The algorithm is a simple way of finding a series of prime numbers by iteratively marking the multiples of each prime as not-prime numbers. The algorithm starts with the multiples of 2 (4,6, 8, 10, ...).

can be expressed in many different ways, although some concepts are extremely difficult to translate between languages. Thinking or speaking in another language always asks for an extra effort to try to explain exactly what is meant. We can identify this phenomenon in spoken languages but also in mathematical practices or in logics. The meaning of the concepts, the symbols used to identify and the connotation in the different cultural settings generates the diversity of (mathematical) languages.

Knijnik (2012) argues in favour of the existence of a plurality of ethnomathematics. She pleads that modern rationality and WAM are not the only rationality that exists. There are other ways of reasoning that coexist in a same form of life, emerging from another cultural setting. As we have done in the previous section, Knijnik (2012) borrows the notion of 'family resemblance' to explain the existence of different kinds of mathematical knowledge as kinds of ethnomathematics that coexist. Let us reiterate some essential features of the concept of 'family resemblance' (Familienähnlichkeit, see Wittgenstein (1971)) to refute the idea that words have a single and fixed meaning by standing for objects in reality. Words acquire meaning from the thoughts of those who are using them and they are connected by a series of overlapping similarities.

The paradigmatic example Wittgenstein uses is the concept of 'game' which can differ according to context, insofar as no single feature is common to all games. The way in which the various uses of the word 'game' are related to one another is the most interesting aspect of language games and of mathematical philosophy. 11 The analysis of the logic of mathematical expressions and how they are used can provide us with a deeper understanding of similarities and differences of mathematical practices. Looking at the 'language game' of mathematical practices, a central question is how we identify and recognize other ways of mathematical reasoning, other mathematical language games or other ethnomathematics. This analysis is the core research topic of the anthropologists studying (indigenous) mathematical practices in order to analyse those forms of rationality that underlie 'other mathematical' practices. Our investigation of the prime number theorem above offered an example of the WAM language game, in which we tried to analyse, to strip away all varieties in search for the 'similarity' which we called the 'skeleton'. This allowed us to demonstrate that not only 'other mathematical' practices have to be interpreted as exotic or indigenous practices, as these Western practices too partake in the plurality of expression forms and of language games.

A next question is then about the status of the discourse of mathematics and the potential force of its agreed upon—i.e., WAM—discourse as a means of control or discipline prevailing on or even excluding other potential mathematical practices.

We have to go beyond the naïve understanding of mathematical diversity as an acknowledgement that there are different ethnomathematics (including WAM) if we want to understand the power mechanism of mathematics discourses especially

¹¹But see footnote 6: Wittgenstein himself did not really stress the connection between family resemblances and mathematics, whether WAM or not.

96 K. François et al.

when such discourses are implemented in school curricula. The connection between discourses and power is a theoretical tool to understand and to analyse the politics of knowledge and how it operates in schooling processes.

8.4 Towards a Recontextualisation of Mathematical Practices and Discourses

The concern about mathematics as a means of power is closely related to the question of plurality that focusses not only on the existence of many forms of ethnomathematics but also on their respective values. In this section we aim to analyse the discourses of mathematics starting from Foucault's (1966, 1981) concept of discourses as 'disciplining' and moving towards Bernstein's fine-grained notions of vertical and horizontal discourses.

Discourses are 'disciplining', Foucault learned us: they facilitate, but at the same time regulate and delineate practices of knowledge in all domains.

In every society the production of discourse is at once controlled, selected, organised and redistributed by a certain number of procedures whose role is to ward off its powers and dangers, to gain mastery over its chance events, to evade its ponderous, formidable materiality. (Foucault 1981, 52)

Discourses both enable and limit what can be done, thought or said. They are powerful articulations, the more powerful as they are articulated by the privileged—academics, politicians, media figures (Hobart 2000, 37). As such discourses are powerful tools in education and of education:

We must conceive discourse as a violence which we do to things, or in any case a practice which we impose on them; and it is in this practice that the events of discourse find the principle of their regularity. (1981, 67)

At the same time, a discourse is something that is continuously recontextualised, used, remodelled in practices. The various practices people engage in while involved in some part of its domain, be they laypeople, students, teachers, researchers, politicians, force again and again the discourse into alternative articulations. Discourses are not only powerful but also contested tools in education and of education.

Mathematical curricula and mathematical pedagogical programs can be analysed as discourses that facilitate the teaching process, but at the same time they regulate and delineate the practices of knowledge. Knijnik (2012), apart from referring to Wittgenstein, also analyses ethnomathematical practices from a philosophical perspective that articulates Foucault's theoretical notion of school mathematics as disciplinary.

An insight in the complexity and tensions of recontextualisation of discourses of knowledge and knowers can offer a more fine-grained view on the opposition between on the one hand the one unique language—including the skeleton—and on the other hand the acceptance of a plurality of mathematics. In the first part we

moved from the notion of discourse, or proof in mathematics, to that of mathematical practices. Here we will operate following the same idea, starting from the above position of Michel Foucault and moving from the notion of discourse to the analysis of practice. We will analyse this problem by way of the notions of horizontal and vertical knowledge and of the recontextualisation of knowledge and knower structures as developed by Bernstein (1999), Knorr Cetina (2001), 2006), and Maton (2010).

From the domain of sociology of education, Bernstein offers interesting insights not only concerning the archaeological investigations of Foucault, but also in regard to the application of Wittgenstein's language games in knowledge practices. Three perspectives open a prismatic view on the complexity of knowledge discourse and, more specific, can help to understand the difficulties and vagueness of mathematical practices, discourses and codes.

A first, and most known, insight of Bernstein concerns the difference between hierarchical (or vertical) knowledge structures and horizontal knowledge structures (Bernstein 1999). Vertical knowledge structures are explicit, coherent and systematic with a strong 'grammar' or discourse: they contribute in a cumulative way to knowledge building through integration and subsuming of knowledge in the existing 'canon' or body of knowledge. We can see these as hierarchically organised knowledge structures, often also with specifically defined criteria and rules for access, transmission and evaluation. New knowledge implies necessarily the integration in the existing body of theory. Our description of the 'skeleton' of a WAM theory of prime numbers offers a good example of a vertical structure with a strong grammar.

Horizontal knowledge structures are rather segmented, side by side approaches with a weaker grammar and more difficult to compare as they consist of parallel incommensurable languages offering potentially new fresh perspectives (Muller 2006, 13; Bernstein 1999, 163). As such they seem to lack a 'skeleton' and even though they seem globally incommensurable they still can be locally comparable. Horizontal knowledge structures are contextually specific and, dependent on the local context, they often have an immediate relevance for the user or for society (Bernstein 1999, 161). We could consider the WAM epistemic culture as part of the vertical knowledge structures, while the broad array of worldwide existing mathematical practices—like street mathematics—develop as horizontal knowledge structures.

A second insight, mainly developed by sociologists working out the implications of Bernstein's ideas, is the attention paid not only to knowledge structures, but also to knowers' structures (Maton 2010). Educational and intellectual fields are shaped not only by the arrangement of knowledge in the field or the construction of explicit knowledge codes, but also by the development of ways and practices of knowing.

These distinct structures offer us a more complex tool to consider knowledge transmission. An interesting question for example would be to analyse whether and how pedagogy—and which levels or domains of pedagogy—initiates learners into ways of knowing rather than into explicit states of knowledge (Maton 2010, 171). As knowledge building is sustained by knowers, the modes of transmitting the

98 K. François et al.

'knowing-that'—canons, discourses—are as important to evaluate as those of transmitting the 'knowing-how'—cultivation of dispositions, habitus or 'craftsmanship' (Maton 2010, 165, Bernstein 1999, 165, Bourdieu 1993). Developing knowledge indeed implies not only taking over the canon of knowledge, but necessarily debating its discourse and canons and/or creating a community of experienced practitioners. As Maton mentions, different fields or disciplines differ in how they articulate knowledge and knowers (Maton 2010, 164). A pedagogical discourse in a certain domain depends thus not only on *what* (curricular, codes) is transmitted, but also *how* (modes), *to whom* (receiver) and *by who* (privileged knower)y It is this articulation that impacts upon the legitimation of the knowledge-knower discourse.

This leads to a third concern: the relation between the institutional level and the interactional level, or the notions of structure, theory and codes versus the practice—be it in a research, pedagogical or everyday context. How can the different subdiscourses (or should we call them subcultures?) of a discipline—more knowledge or knower based, more vertical or rather horizontal—relate to each other? Think of the differences between the WAM discourse, the pedagogical discourse in action, the discourse vehiculated by control organs like TIMSS—evaluating a list of topics that define the internal language of mathematics—, the different math discourses over time, or even the discourse of street mathematics. How do these subdiscourses constitute and/or constrain each other? How does the 'main' discourse, that what is considered as the 'internal' language or grammar of math, deal with the different (domains or levels of) practices and their external languages of use? From the example developed in the first half of this text, it is clear that the domain of interaction exceeds the field of pedagogy, everyday practice or academic mathematics and that the relations between these domains are complex because the perspectives differ following respectively spatial, social and epistemic positions. They develop their modes of knowledge—and knower-building of mathematics, being separated and at the same time linked by the same subject—mathematics.

Following a Foucauldian perspective, a hierarchical or vertical installation of codes takes place—top-down, submerging the existing and possible horizontal discourses over time and space—bottom-up. Taking up the notion of de—and recontextualisation of knowledge codes and discourses however (Bernstein 1999; Muller 2006; Collier and Ong 2005), we can consider that existing knowledge discourses and standards are repositioned and debated differently following the situations: challenged by local practice contexts and by different emerging or freshly communicated languages. Codified or materialised knowledge will be deand recontextualised in each specific context, depending upon its "capacity for decontextualisation and recontextualisation, abstractability and movement, across diverse social and cultural situations and spheres of life" (Collier and Ong, 2005, 400).

Recontextualisation of a knowledge subject and of its (internal) discourse will happen inside wider external social, cultural, educational contexts. It is a form of mediation that can take place between an education institution and its students where the pedagogic discourse and practice transform the internal language of a subject. Pedagogic discourse, writes Bernstein "embeds two discourses; a discourse

of skills of various kinds and their relations to each other, and a discourse of social order" (2000, 32). By creating and re-creating its own field, recontextualisation appropriates or re-appropriates discourses from the field of production and transforms them into a local context—be it pedagogic or practice-based (Bernstein 2000, 113). Recontextualisation can also take place over time between different experts in the subject, communicating and developing externally a more focused or refined internal language—as in the mathematical example on prime numbers above.

8.5 Conclusion

Based on the analysis of the discourses of change in mathematics and the way the changes of mathematical discourses and practices are discussed in philosophy of mathematics we identified the main ingredients to enter into the complexity of mathematics as a discourse and a practice—or should we say discourses and practices. The central components we need to understand this complexity are (i) the contexts of human investigation and practice, (ii) the growth of knowledge and (iii) a discourse that develops to transmit and understand this human endeavour. Starting from the notion of 'skeleton', and even more, thinking of a 'pure' and 'unique' skeleton, we ended with multiple possibilities of recontextualisation of the discourse of mathematics. The discussion moved along the lines of power and constraints, plurality and family resemblances, verticality and horizontality of knowledge structures, local contexts and knowers. Each expression of mathematical knowledge bears the weight of a specific constellation of these factors. It happens in the field of academic robustness, in the pedagogic transmission of knowledge as well as in the contingent actions of everyday life. The awareness of this plurality opens up the possibility for a shift in power relations as the constellations get better known and understood.

References

Adam, S., Alangui, W., & Barton, B. (2003). A comment on: Rowlands and Carson "Where would formal, academic mathematics stand in a curriculum informed by Ethnomathematics? A critical review". *Educational Studies in Mathematics*, 52, 327–335.

Barton, B. (1999). Ethnomathematics and philosophy. ZDM, 31(2), 54–58.

Barton, B. (2009). The language of mathematics and philosophy. Telling mathematical tales. New York: Springer.

Bernstein, B. (1999). Vertical and horizontal discourse: An essay. *British Journal of Education*, 20 (2), 157–173.

Bernstein, B. (2000). *Pedagogy, symbolic control and identity*. Boston: Rowman & Littlefield Publishers.

Bourdieu, P. (1993). The field of cultural production. Oxford: Polity Press.

100 K. François et al.

Collier, S. J., & Ong, A. (2005). Global assemblages, anthropological problems. In S. J. Collier & A. Ong (Eds.), Global assemblages: Technology, politics and ethics as anthropological problems (pp. 3–21). Malden: Blackwell Publishing.

- D'Ambrosio, U. (1990). The history of mathematics and ethnomathematics. How a native culture intervenes in the process of learning science. *Impact of Science on Society*, 40(4), 369–377.
- Foucault, M. (1966). Les mots et les choses; Une archéologie des sciences humaines. Paris: Gallimard.
- Foucault, M. (1981). The order of discourse. In R. Young (Ed.), *Untying the text: A post-structuralist reader*. Boston: Routledge and Kegan Paul.
- François, K., & Van Kerkhove, B. (2010). Ethnomathematics and the philosophy of mathematics (education). In B. Löwe & T. Müller (Eds.), *Philosophy of mathematics: Sociological aspects and mathematical practice. Series: Texts in philosophy* (pp. 121–154). London: College Publications.
- Hobart, M. (2000). After culture: Anthropology as radical metaphysical critique. Yogyakarta: Duta Wacana University Press.
- Knijnik, G. (2012). Differentially positioned language games: Ethnomathematics from a philosophical perspective. *Educational Studies in Mathematics*, 80(1,2), 87–100.
- Knorr Cetina, K. (2001). Objectual practice. In T. Schatzki, K. Knorr Cetina, & E. von Savigny (Eds.), *The practice turn in contemporary theory* (pp. 175–188). London: Routledge.
- Knorr Cetina, K. (2006). Knowledge in a knowledge society: Five transitions. *Knowledge*, *Work and Society*, 4(3), 23–41.
- Maton, K. (2010). Canons and progress in the arts and humanities: Knowers and gazes. In K. Maton & R. Moore (Eds.), *Social realism, knowledge and the sociology of education* (pp. 154–178). London: Continuum.
- Mesquita, M., Restivo, S., & D'Ambrosio, U. (2011). Asphalt children and city streets. A life, a city, and a case study of history, culture, and ethnomathematics in São Paulo. Rotterdam: Sense publishers.
- Muller, J. (2006). On the shoulders of giants: Verticality of knowledge and the school curriculum. In M. Moore, M. Arnot, J. Beck, & H. Daniels (Eds.), *Knowledge, power and educational reform* (pp. 11–27). New York: Routledge.
- Nunes, T., Schliemann Dias, A., & Carraher, D. W. (1993). Street mathematics and school mathematics. Cambridge: Cambridge University Press.
- Pais, A. (2011). Criticisms and contradictions of ethnomathematics. *Educational Studies in Mathematics*, 76(2), 209–230.
- Pinxten, R., & François, K. (2011). Politics in an Indian canyon? Some thoughts on the implications of ethnomathematics. *Educational Studies in Mathematics*, 78(2), 261–273.
- Rowlands, S., & Carson, R. (2002). Where would formal, academic mathematics stand in a curriculum informed by ethnomathematics? A critical review of ethnomathematics. *Educational Studies in Mathematics*, 50, 79–102.
- Rowlands, S., & Carson, R. (2004). Our response to Adam, Alangui and Barton's "a comment on Rowlands and Carson 'Where would formal, academic mathematics stand in a curriculum informed by ethnomathematics?". *Educational Studies in Mathematics*, 56, 329–342.
- Shanker, S. (1987). Wittgenstein and the turning point in the philosophy of mathematics. London: Croom Helm Ltd.
- Sjögren, J. (2010). A note on the relation between formal and informal proof. *Acta Analytica*, 25, 447–458. doi:10.1007/s12136-009-0084-y.
- Van Bendegem, J. P. (2013). The blessing of Babel. In R. Horne & J. Bovijn (Eds.), *Antony gormley: According to a given mean* (pp. 4–17). Brussel: Xavier Hufkens.
- Van Kerkhove, B., & Van Bendegem, J. P. (2014). Another look at mathematical style, as inspired by Le Lionnais and the OuLiPo. In J. Meheus, E. Weber, & D. Wouters (Eds.), *Logic*, reasoning and rationality (pp. 233–245). New York: Springer.
- Wittgenstein, L. (1956). Remarks on the foundations of mathematics. Oxford: Blackwell.
- Wittgenstein, L. (1971). *Philosophische untersuchungen*. Frankfurt am Main: Basil Blackwell.

Chapter 9 Learning to Love the Bomb: The Cold War Brings the Best of Times to American Higher Education

David F. Labaree

American higher education rose to fame and fortune during the Cold War, when both student enrollments and funded research shot upward. Prior to World War II, the federal government showed little interest in universities and provided little support. The war spurred a large investment in defense-based scientific research in universities for reasons of both efficiency and necessity: universities had the researchers and infrastructure in place and the government needed to gear up quickly. With the emergence of the Cold War in 1947, the relationship continued and federal investment expanded exponentially. Unlike a hot war, the Cold War offered a long timeline for global competition between communism and democracy, which meant institutionalizing the wartime model of federally funded research and building a set of structures for continuing investment in knowledge whose military value was unquestioned. At the same time, the communist challenge provided a strong rationale for sending a large number of students to college. These increased enrollments would educate the skilled workers needed by the Cold War economy, produce informed citizens to combat the Soviet menace, and demonstrate to the world the broad social opportunities available in a liberal democracy. The result of this enormous public investment in higher education has become known as the golden age of the American university.

Of course, as is so often the case with a golden age, it didn't last. The good times continued for about 30 years and then began to go bad. The decline was triggered by the combination of a decline in the perceived Soviet threat and a taxpayer revolt against high public spending; both trends with the fall of the Berlin Wall in 1989. With no money and no enemy, the Cold War university fell as quickly as it arose.

In this paper I try to make sense of this short-lived institution. But I want to avoid the note of nostalgia that pervades many current academic accounts, in which professors and administrators grieve for the good old days of the mid-century

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102 D.F. Labaree

university and spin fantasies of recapturing them. Barring another national crisis of the same dimension, however, it just won't happen. Instead of seeing the Cold War university as the norm that we need to return to, I suggest that it's the exception. What we're experiencing now in American higher education is, in many ways, a regression to the mean.

My central theme is this: Over the long haul, Americans have understood higher education as a distinctly private good. The period from 1940 to 1970 was the one time in our history when the university became a public good. And now we are back to the place we have always been, where the university's primary role is to provide individual consumers a chance to gain social access and social advantage. Since students are the primary beneficiaries, then they should also foot the bill; so state subsidies are hard to justify.

Here is my plan. First, I provide an overview of the long period before 1940 when American higher education functioned primarily as a private good. During this period, the beneficiaries changed from the university's founders to its consumers, but private benefit was the steady state. This is the baseline against which we can understand the rapid postwar rise and fall of public investment in higher education. Next, I look at the huge expansion of public funding for higher education starting with World War II and continuing for the next 30 years. Along the way I sketch how the research university came to enjoy a special boost in support and rising esteem during these decades. Then I examine the fall from grace toward the end of the century when the public-good rationale for higher ed faded as quickly as it had emerged. And I close by exploring the implications of this story for understanding the American system of higher education as a whole.

During most of its history, the central concern driving the system has not been what it can do for society but what it can do for me. In many ways, this approach has been highly beneficial. Much of its success as a system – as measured by wealth, rankings, and citations – derives from its core structure as a market-based system producing private goods for consumers rather than a politically-based system producing public goods for state and society. But this view of higher education as private property is also a key source of the system's pathologies. It helps explain why public funding for higher education is declining and student debt is rising; why private colleges are so much richer and more prestigious that public colleges; why the system is so stratified, with wealthy students attending the exclusive colleges at the top where social rewards are high and with poor students attending the inclusive colleges at the bottom where such rewards are low; and why quality varies so radically, from colleges that ride atop the global rankings to colleges that drift in intellectual backwaters.

9.1 The Private Origins of the System

One of the peculiar aspects of the history of American higher education is that private colleges preceded public. Another, which in part follows from the first, is that private colleges are also more prestigious. Nearly everywhere else in the world,

state-supported and governed universities occupy the pinnacle of the national system while private institutions play a small and subordinate role, supplying degrees of less distinction and serving students of less ability. But in the U.S., the top private universities produce more research, gain more academic citations, attract better faculty and students, and graduate more leaders of industry, government, and the professions. According to the 2013 Shanghai rankings, 16 of the top 25 universities in the U.S. are private, and the concentration is even higher at the top of this list, where private institutions make up 8 of the top 10 (Institute of Higher Education 2013).

This phenomenon is rooted in the conditions under which colleges first emerged in the U.S. American higher education developed into a system in the early nineteenth century, when three key elements were in place: the state was weak, the market was strong, and the church was divided. The federal government at the time was small and poor, surviving largely on tariffs and the sale of public lands, and state governments were strapped simply trying to supply basic public services. Colleges were a low priority for government since they served no compelling public need – unlike public schools, which states saw as essential for producing citizens for the republic. So colleges only emerged when local promoters requested and received a corporate charter from the state. These were private not-for-profit institutions that functioned much like any other corporation. States provided funding only sporadically and only if an institution's situation turned dire. And after the Dartmouth College decision in 1819, the Supreme Court made clear that a college's corporate charter meant that it could govern itself without state interference. Therefore, in the absence of state funding and control, early American colleges developed a market-based system of higher education.

If the roots of the American system were private, they were also extraordinarily local. Unlike the European university, with its aspirations toward universality and its history of cosmopolitanism, the American college of the nineteenth century was a home-town entity. Most often, it was founded to advance the parochial cause of promoting a particular religious denomination rather than to promote higher learning. In a setting where no church was dominant and all had to compete for visibility, stature, and congregants, founding colleges was a valuable way to plant the flag and promote the faith. This was particularly true when the population was rapidly expanding into new territories to the west, which meant that no denomination could afford to cede the new terrain to competitors. Starting a college in Ohio was a way to ensure denominational growth, prepare clergy, and spread the word.

At the same time, colleges were founded with an eye toward civic boosterism, intended to shore up a community's claim to be a major cultural and commercial center rather than a sleepy farm town. With a college, a town could claim that it deserved to gain lucrative recognition as a stop on the railroad line, the site for a state prison, the county seat, or even the state capital. These consequences would elevate the value of land in the town, which would work to the benefit of major landholders. In this sense, the nineteenth century college, like much of American history, was in part the product of a land development scheme. In general, these two motives combined: colleges emerged as a way to advance both the interests of

particular sects and also the interests of the towns where they were lodged. Often ministers were also land speculators. It was always better to have multiple rationales and sources of support than just one (Brown 1995; Boorstin 1965; Potts 1971). In either case, however, the benefits of founding a college accrued to individual landowners and particular religious denominations and not to the larger public.

As a result these incentives, church officials and civic leaders around the country scrambled to get a state charter for a college, establish a board of trustees made up of local notables, and install a president. The latter (usually a clergyman) would rent a local building, hire a small and not very accomplished faculty, and serve as the CEO of a marginal educational enterprise, one that sought to draw tuition-paying students from the area in order to make the college a going concern. With colleges arising to meet local and sectarian needs, the result was the birth of a large number of small, parochial, and weakly funded institutions in a very short period of time in the nineteenth century, which meant that most of these colleges faced a difficult struggle to survive in the competition with peer institutions. In the absence of reliable support from church or state, these colleges had to find a way to get by on their own.

Into this mix of private colleges, state and local governments began to introduce public institutions. First came a series of universities established by individual states to serve their local populations. Here too competition was a bigger factor than demand for learning, since a state government increasingly needed to have a university of its own in order to keep up with its neighbors. Next came a group of land-grant colleges that began to emerge by midcentury. Funded by grants of land from the federal government, these were public institutions that focused on providing practical education for occupations in agriculture and engineering. Finally was an array of normal schools, which aimed at preparing teachers for the expanding system of public elementary education. Like the private colleges, these public institutions emerged to meet the economic needs of towns that eagerly sought to house them. And although they colleges were creatures of the state, they had only limited public funding and had to rely heavily on student tuition and private donations.

The rate of growth of this system of higher education was staggering. At the beginning of the American republic in 1790 the country had 19 institutions calling themselves colleges or universities (Tewksbury 1932, Table 1; Collins 1979, Table 5.2). By 1880, it had 811, which doesn't even include the normal schools. As a comparison, this was five times as many institutions as existed that year in all of Western Europe (Ruegg 2004). To be sure, the American institutions were for the most part colleges in name only, with low academic standards, an average student body of 131 (Carter et al. 2006, Table Bc523) and faculty of 14 (Carter et al. 2006, Table Bc571). But nonetheless this was a massive infrastructure for a system of higher education.

At a density of 16 colleges per million of population, the U.S. in 1880 had the most overbuilt system of higher education in the world (Collins 1979, Table 5.2). Created in order to meet the private needs of land speculators and religious sects rather that the public interest of state and society, the system got way ahead of

demand for its services. That changed in the 1880s. By adopting parts of the German research university model (in form if not in substance), the top level of the American system acquired a modicum of academic respectability. In addition – and this is more important for our purposes here – going to college finally came to be seen as a good investment for a growing number of middle-class student-consumers.

Three factors came together to make college attractive. Primary among these was the jarring change in the structure of status transmission for middle-class families toward the end of the nineteenth century. The tradition of passing on social position to your children by transferring ownership of the small family business was under dire threat, as factories were driving independent craft production out of the market and department stories were making small retail shops economically marginal. Under these circumstances, middle class families began to adopt what Burton Bledstein calls the "culture of professionalism" (Bledstein 1976). Pursuing a profession (law, medicine, clergy) had long been an option for young people in this social stratum, but now this attraction grew stronger as the definition of profession grew broader. With the threat of sinking into the working class becoming more likely, families found reassurance in the prospect of a form of work that would buffer their children from the insecurity and degradation of wage labor. This did not necessarily mean becoming a traditional professional, where the prospects were limited and entry costs high, but instead it meant becoming a salaried employee in a management position that was clearly separated from the shop floor. The burgeoning white-collar work opportunities as managers in corporate and government bureaucracies provided the promise of social status, economic security, and protection from downward mobility. And the best way to certify yourself as eligible for this kind of work was to acquire a college degree.

Two other factors added to the attractions of college. One was that a high school degree – once a scarce commodity that became a form of distinction for middle class youth during the nineteenth century – was in danger of becoming commonplace. Across the middle of the century, enrollments in primary and grammar schools were growing fast, and by the 1880s they were filling up. By 1900, the average American 20-year-old had 8 years of schooling, which meant that political pressure was growing to increase access to high school (Goldin and Katz 2008, p. 19). This started to happen in the 1880s, and for the next 50 years high school enrollments doubled every decade. The consequences were predictable. If the working class was beginning to get a high school education, then middle class families felt compelled to preserve their advantage by pursuing college.

The last piece that fell into place to increase the drawing power of college for middle class families was the effort by colleges in the 1880s and 1990s to make undergraduate enrollment not just useful but enjoyable. Ever desperate to find ways to draw and retain students, colleges responded to competitive pressure by inventing the core elements that came to define the college experience for American students in the twentieth century. These included fraternities and sororities, pleasant residential halls, a wide variety of extracurricular entertainments, and – of course – football. College life became a major focus of popular magazines, and college

athletic events earned big coverage in newspapers. In remarkably short order, going to college became a life stage in the acculturation of middle class youth. It was the place where you could prepare for a respectable job, acquire sociability, learn middle class cultural norms, have a good time, and meet a suitable spouse. And, for those who were so inclined, was the potential fringe benefit of getting an education.

Spurred by student desire to get ahead or stay ahead, college enrollments started growing quickly. They were at 116,000 in 1879, 157,000 in 1889, 238,000 in 1899, 355,000 in 1909, 598,000 in 1919, 1.104,000 in 1929, and 1.494,000 in 1939 (Carter et al. 2006, Table Bc523). This was a rate of increase of more than 50 % a decade - not as fast as the increases that would come at midcentury, but still impressive. During this same 60-year period, total college enrollment as a proportion of the population 18-to-24 years old rose from 1.6% to 9.1% (Carter et al. 2006, Table Bc524). By 1930, U.S. had three times the population of the U.K. and 20 times the number of college students (Levine 1986, p. 135). And the reason they were enrolling in such numbers was clear. According to studies in the 1920s, almost two-thirds of undergraduates were there to get ready for a particular job, mostly in the lesser professions and middle management (Levine 1986, p. 40). Business and engineering were the most popular majors and the social sciences were on the rise. As David Levine put it in his important book about college in the interwar years, "Institutions of higher learning were no longer content to educate; they now set out to train, accredit, and impart social status to their students" (Levine 1986, p. 19).

Enrollments were growing in public colleges faster than in private colleges, but only by a small amount. In fact it wasn't until 1931 – for the first time in the history of American higher education – that the public sector finally accounted for a majority of college students (Carter et al. 2006, Tables Bc531 and Bc534). The increases occurred across all levels of the system, including the top public research universities; but the largest share of enrollments flowed into the newer institutions at the bottom of the system: the state colleges that were emerging from normal schools, urban commuter colleges (mostly private), and an array of public and private junior colleges that offered 2-year vocational programs.

For our purposes today, the key point is this: The American system of colleges and universities that emerged in the nineteenth century and continued until World War II was a market-driven structure that construed higher education as a private good. Until around 1880, the primary benefits of the system went to the people who founded individual institutions – the land speculators and religious sects for whom a new college brought wealth and competitive advantage. This explains why colleges emerged in such remote places long before there was substantial student demand. The role of the state in this process was muted. The state was too weak and too poor to provide strong support for higher education, and there was no obvious state interest that argued for doing so. Until the decade before the war, most student enrollments were in the private sector, and even at the war's start the majority of institutions in the system were private (Carter et al. 2006, Tables Bc510 to Bc520).

After 1880, the primary benefits of the system went to the students who enrolled. For them, it became the primary way to gain entry to the relatively secure confines of salaried work in management and the professions. For middle class families, college in this period emerged as the main mechanism for transmitting social advantage from parents to children; and for others, it became the object of aspiration as the place to get access to the middle class. State governments put increasing amounts of money into support for public higher education, not because of the public benefits it would produce but because voters demanded increasing access to this very attractive private good.

9.2 The Rise of the Cold War University

And then came the Second World War. There is no need here to recount the devastation it brought about or the nightmarish residue it left. But it's worth keeping in mind the peculiar fact that this conflict is remembered fondly by Americans, who often refer to it as the Good War (Terkel 1997). The war cost a lot of American lives and money, but it also brought a lot of benefits. It didn't hurt, of course, to be on the winning side and to have all the fighting take place on foreign territory. And part of the positive feeling associated with the war comes from the way it thrust the country into a new role as the dominant world power. But perhaps even more the warm feeling arises from the memory of this as a time when the country came together around a common cause. For citizens of the United States - the most liberal of liberal democracies, where private liberty is much more highly valued than public loyalty – it was a novel and exciting feeling to rally around the federal government. Usually viewed with suspicion as a threat to the rights of individuals and a drain on private wealth, the American government in the 1940s took on the mantle of good in the fight against evil. Its public image became the resolute face of a white-haired man dressed in red, white, and blue, who pointed at the viewer in a famous recruiting poster. It's slogan: "Uncle Sam Wants You."

One consequence of the war was a sharp increase in the size of the U.S. government. The historically small federal state had started to grow substantially in the 1930s as a result of the New Deal effort to spend the country out of a decade-long economic depression, a time when spending doubled. But the war raised the level of federal spending by a factor of seven, from \$1,000 to \$7,000 per capita. After the war, the level dropped back to \$2,000; and then the onset of the Cold War sent federal spending into a sharp, and this time sustained, increase – reaching \$3,000 in the 1950s, 4,000 in the 1960s, and regaining the previous high of \$7,000 in the 1980s, during the last days of the Soviet Union (Garrett and Rhine 2006, figure 3).

If for Americans in general World War II carries warm associations, for people in higher education it marks the beginning of the Best of Times – a short but intense period of generous public funding and rapid expansion. Initially, of course, the war brought trouble, since it sent most prospective college students into the military.

108 D.F. Labaree

Colleges quickly adapted by repurposing their facilities for military training and other war-related activities. But the real long-term benefits came when the federal government decided to draw higher education more centrally into the war effort – first, as the central site for military research and development; and second, as the place to send veterans when the war was over. Let me say a little about each.

In the first half of the twentieth century, university researchers had to scrabble around looking for funding, forced to rely on a mix of foundations, corporations, and private donors. The federal government saw little benefit in employing their services. In a particularly striking case at the start of World War, the professional association of academic chemists offered its help to the War Department, which declined "on the grounds that it already had a chemist in its employ" (Levine 1986, p. 51). The existing model was for government to maintain its own modest research facilities instead of relying on the university.

The scale of the next war changed all this. At the very start, a former engineering dean from MIT, Vannevar Bush, took charge of mobilizing university scientists behind the war effort as head of the Office of Scientific Research and Development. The model he established for managing the relationship between government and researchers set the pattern for university research that still exists in the U.S. today: Instead of setting up government centers, the idea was to farm out research to universities. Issue a request for proposals to meet a particular research need; award the grant to the academic researchers who seemed best equipped to meet this need; and pay 50% or more overhead to the university for the facilities that researchers would use. This method drew on the expertise and facilities that already existed at research universities, which both saved the government from having to maintain a costly permanent research operation and also gave it the flexibility to draw on the right people for particular projects. For universities, it provided a large source of funds, which enhanced their research reputations, helped them expand faculty, and paid for infrastructure. It was a win-win situation. It also established the entrepreneurial model of the university researcher in perpetual search for grant money. And for the first time in the history of American higher education, the university was being considered a public good, whose research capacity could serve the national interest by helping to win a war.

If universities could meet one national need during the war by providing military research, they could meet another national need after the war by enrolling veterans. The GI Bill of Rights, passed by congress in 1944, was designed to pay off a debt and resolve a manpower problem. Its official name, the Servicemen's Readjustment Act of 1944, reflects both aims. By the end of the war there were 15 million men and women who had served in the military, who clearly deserved a reward for their years of service to the country. The bill offered them the opportunity to continue their education at federal expense, which included attending the college of their choice. This opportunity also offered another public benefit, since it responded to

¹ Under pressure of the war effort, the department eventually relented and enlisted the help of chemists to study gas warfare. But the initial response is telling.

deep concern about the ability of the economy to absorb this flood of veterans. The country had been sliding back into depression at the start of the war, and the fear was that massive unemployment at war's end was a real possibility. The strategy worked. Under the GI Bill, about two million veterans eventually attended some form of college. By 1948, when veteran enrollment peaked, American colleges and universities had one million more students than 10 years earlier (Geiger 2004, pp. 40–41; Carter et al. 2006, Table Bc523). This was another win-win situation. The state rewarded national service, headed off mass unemployment, and produced a pile of human capital for future growth. Higher education got a flood of students who could pay their own way. The worry, of course, was what was going to happen when the wartime research contracts ended and the veterans graduated.

That's where the Cold War came in to save the day. And the timing was perfect. The first major action of the new conflict – the Berlin Blockade – came in 1948, the same year that veteran enrollments at American colleges reached their peak. If World War II was good for American higher education, the Cold War was a bonanza. The hot war meant boom and bust – providing a short surge of money and students followed by a sharp decline. But the Cold War was a prolonged effort to contain Communism. It was sustainable because actual combat was limited and often carried out by proxies. For universities this was a gift that, for 30 years, kept on giving. The military threat was massive in scale – nothing less than the threat of nuclear annihilation. And supplementing it was an ideological challenge - the competition between two social and political systems for hearts and minds. As a result, the government needed top universities to provide it with massive amounts of scientific research that would support the military effort. And it also needed all levels of the higher education system to educate the large numbers of citizens required to deal with the ideological menace. We needed to produce the scientists and engineers who would allow us to compete with Soviet technology. We needed to provide high-level human capital in order to promote economic growth and demonstrate the economic superiority of capitalism over communism. And we needed to provide educational opportunity for our own racial minorities and lower classes in order to show that our system is not only effective but also fair and equitable. This would be a powerful weapon in the effort to win over the third world with the attractions of the American Way. The Cold War American government treated higher education system as a highly valuable public good, which would make a large contribution to the national interest; and the system was pleased to be the object of so much federal largesse (Loss 2011).

On the research side, the impact of the Cold War on American universities was dramatic. The best way to measure this is by examining patterns of federal research and development spending over the years, which traces the ebb and flow of national threats across the last 60 years. Funding rose slowly from \$13 billion in 1953 (in constant 2014 dollars) until the Sputnik crisis (after the Soviets succeeded in placing the first satellite in earth orbit), when funding jumped to \$40 billion in 1959 and rose rapidly to a peak of \$88 billion in 1967. Then the amount backed off to \$66 billion in 1975, climbing to a new peak of \$104 billion in 1990 just before the collapse of the Soviet Union and then dropping off. It started growing again in 2002

110 D.F. Labaree

after the attack on the twin towers, reaching an all-time high of \$151 billion in 2010 and has been declining ever since (AAAS 2014).²

Initially, defense funding accounted for 85 % of federal research funding, gradually falling back to about half in 1967, as nondefense funding increased, but remaining in a solid majority position up until the present. For most of the period after 1957, however, the largest element in nondefense spending was research on space technology, which arose directly from the Soviet Sputnik threat. If you combine defense and space appropriations, this accounts for about three-quarters of federal research funding until 1990. Defense research closely tracked perceived threats in the international environment, dropping by 20 % after 1989 and then making a comeback in 2001. Overall, federal funding during the Cold War for research of all types grew in constant dollars from \$13 billion in 1953 to \$104 in 1990, an increase of 700 %. These were good times for university researchers (AAAS 2014).

At the same time that research funding was growing rapidly, so were college enrollments. The number of students in American higher education grew from 2.4 million in 1949 to 3.6 million in 1959; but then came the 1960s, when enrollments more than doubled, reaching eight million in 1969. The number hit 11.6 million in 1979 and then began to slow down – creeping up to 13.5 million in 1989 and leveling off at around 14 million in the 1990s (Carter et al. 2006, Table Bc523; NCES 2014, Table 303.10). During the 30 years between 1949 and 1979, enrollments increased by more than nine million students, a growth of almost 400%. And the bulk of the enrollment increases in the last two decades were in part-time students and at 2-year colleges. Among 4-year institutions, the primary growth occurred not at private or flagship public universities but at regional state universities, the former normal schools. The Cold War was not just good for research universities; it was also great for institutions of higher education all the way down the status ladder.

In part we can understand this radical growth in college enrollments as an extension of the long-term surge in consumer demand for American higher education as a private good. Recall that enrollments started accelerating late in the nineteenth century, when college attendance started to provide an edge in gaining middle class jobs. This meant that attending college gave middle-class families a way to pass on social advantage while attending high school gave working-class families a way to gain social opportunity. But by 1940, high school enrollments had become universal. So for working-class families, the new zone of social opportunity became higher education. This increase in consumer demand provided a market-based explanation for at least part of the flood of postwar enrollments.

² Not all of this funding went into the higher education system. Some went to stand-alone research organizations such as the Rand Corporation and American Institute of Research. But these organizations in many ways function as an adjunct to higher education, with researcher moving freely between them and the university.

At the same time, however, the Cold War provided a strong public rationale for broadening access to college. In 1946, President Harry Truman appointed a commission to provide a plan for expanding access to higher education, which was first time in American history that a president sought advice about education at any level. The result was a six-volume report with the title *Higher Education for American Democracy*. It's no coincidence that the report was issued in 1947, the starting point of the Cold War. The authors framed the report around the new threat of atomic war, arguing that "It is essential today that education come decisively to grips with the world-wide crisis of mankind" (President's Commission 1947, vol. 1, p. 6). What they proposed as a public response to the crisis was a dramatic increase in access to higher education.

The American people should set as their ultimate goal an educational system in which at no level – high school, college, graduate school, or professional school – will a qualified individual in any part of the country encounter an insuperable economic barrier to the attainment of the kind of education suited to his aptitudes and interests.

This means that we shall aim at making higher education equally available to all young people, as we now do education in the elementary and high schools, to the extent that their capacity warrants a further social investment in their training (President's Commission 1947, vol. 1, p. 36).

Tellingly, the report devotes a lot of space exploring the existing barriers to educational opportunity posed by class and race – exactly the kinds of issues that were making liberal democracies look bad in light of the egalitarian promise of communism.

9.3 Decline of the System's Public Mission

So in the mid twentieth century, Americans went through an intense but brief infatuation with higher education as a public good. Somehow college was going to help save us from the communist menace and the looming threat of nuclear war. Like World War II, the Cold War brought together a notoriously individualistic population around the common goal of national survival and the preservation of liberal democracy. It was a time when every public building had an area designated as a bomb shelter. In the elementary school I attended in the 1950s, I can remember regular air raid drills. The alarm would sound and teachers would lead us downstairs to the basement, whose concrete-block walls were supposed to protect us from a nuclear blast. Although the drills did nothing to preserve life, they did serve an important social function. Like Sunday church services, these rituals drew individuals together into communities of faith where we enacted our allegiance to a higher power.

For American college professors, these were the glory years, when fear of annihilation gave us a glamorous public mission and what seemed like an endless flow of public funds and funded students. But it did not – and could not – last. Wars can bring great benefits to the home front, but then they end. The Cold War lasted

112 D.F. Labaree

longer than most, but this longevity came at the expense of intensity. By the 1970s, the U.S. had lived with the nuclear threat for 30 years without any sign that the worst case was going to materialize. You can only stand guard for so long before attention begins to flag and ordinary concerns start to push back to the surface. In addition, waging war is extremely expensive, draining both public purse and public sympathy. The two Cold War conflicts that engaged American troops cost a lot, stirred strong opposition, and ended badly, providing neither the idealistic glow of the Good War nor the satisfying closure of unconditional surrender by the enemy. Korea ended with a stalemate and the return to the status quo ante bellum. Vietnam ended with defeat and the humiliating image in 1975 of the last Americans being plucked off a rooftop in Saigon – which the victors then promptly renamed Ho Chi Minh City.

The Soviet menace and the nuclear threat persisted, but in a form that – after the grim experience of war in the rice paddies – seemed distant and slightly unreal. Add to this the problem that, as a tool for defeating the enemy, the radical expansion of higher education by the 1970s did not appear to be a cost-effective option. Higher ed is a very labor-intensive enterprise, in which size brings few economies of scale, and its public benefits in the war effort were hard to pin down. As the national danger came to seem more remote, the costs of higher ed became more visible and more problematic. Look around any university campus, and the primary beneficiaries of public largesse seem to be private actors – the faculty and staff who work there and the students whose degrees earn them higher income. So about 30 years into the Cold War, the question naturally arose: Why should the public pay so much to provide cushy jobs for the first group and to subsidize the personal ambition of the second? If graduates reap the primary benefits of a college education, shouldn't they be paying for it rather than the beleaguered taxpayer?

The 1970s marked the beginning of the American tax revolt, and not surprisingly this revolt emerged first in the bellwether state of California. Fueled by booming defense plants and high immigration, California had a great run in the decades after 1945. During this period, the state developed the most comprehensive system of higher education in the country. In 1960 it formalized this system with a Master Plan that offered every Californian the opportunity to attend college in one of three state systems. The University of California focused on research, graduate programs, and educating the top high school graduates. California State University (developed mostly from former teachers colleges) focused on undergraduate programs for the second tier of high school graduates. The community college system offered the rest of the population 2-year programs for vocational training and possible transfer to one of the two university systems. By 1975, there were 9 campuses in the University of California, 23 in California State University, and xx in the community college system, with a total enrollment across all systems of 1.5 million students – accounting for 14% of the college students in the U.S. (Carter et al. 2006, Table Bc523; Douglass 2000, Table 1). Not only was the system enormous, but the Master Plan declared it illegal to charge California students tuition. The biggest and best public system of higher education in the country was free.

And this was the problem. What allowed the system to grow so fast was a state fiscal regime that was quite rare in the American context – one based on high public services supported by high taxes. After enjoying the benefits of this combination for a few years, taxpayers suddenly woke up to the realization that this approach to paying for higher education was at core un-American. For a country deeply grounded in liberal democracy, the system of higher ed for all at no cost to the consumer looked a lot like socialism. So, of course, it had to go. In the mid-1970s the country's first taxpayer revolt emerged in California, culminating in a successful campaign in 1978 to pass a state-wide initiative that put a limit on increases in property taxes. Other tax limitation initiatives followed (Martin 2008). As a result, the average state appropriation per student at University of California dropped from about \$3400 (in 1960 dollars) in 1987 to \$1100 in 2010, a decline of 68 % (UC Data Analysis 2014). This quickly led to a steady increase in fees charged to students at California's colleges and universities (It turned out that tuition was illegal but demanding fees from students was not.) In 1960 dollars, the annual fees for in-state undergraduates at the University of California rose from \$317 in 1987 to \$1,122 in 2010, an increase of more than 250 % (UC Data Analysis 2014). This pattern of tax limitations and tuition increases spread across the country. Nationwide during the same period of time, the average state appropriation per student at a 4 year public college fell from \$8500 to \$5900 (in 2012 dollars), a decline of 31 %, while average undergraduate tuition doubled, rising from \$2600 to \$5200 (SHEEO 2013, Figure 3).

The decline in the state share of higher education costs was most pronounced at the top public research universities, which had a wider range of income sources. By 2009, the average such institution was receiving only 25 % of its revenue from state government (National Science Board 2012, Figure 5). An extreme case is University of Virginia, where in 2013 the state provided less than 6 % of the university's operating budget (University of Virginia 2014).

While these changes were happening at the state level, the federal government was also backing away from its Cold War generosity to students in higher education. Legislation such as the National Defense Education Act (1958) and Higher Education Act (1965) had provided support for students through a roughly equal balance of grants and loans. But in 1980 the election of Ronald Reagan as president meant that the push to lower taxes would become national policy. At this point, support for students shifted from cash support to federally guaranteed loans. The idea was that a college degree was a great investment for students, which would pay long-term economic dividends, so they should shoulder an increasing share of the cost. The proportion of total student support in the form of loans was 54 % in 1975, 67 % in 1985, and 78 % in 1995, and the ratio has remained at that level ever since (McPherson and Schapiro 1999, Table 3.3; College Board 2013, Table 1). By 1995, students were borrowing \$41 billion to attend college, which grew to \$89 billion in 2005 (College Board 2014, Table 1). At present, about 60% of all students accumulate college debt, most of it in the form of federal loans, and the total student debt load has passed \$1 trillion.

114 D.F. Labaree

At the same time that the federal government was cutting back on funding college students, it was also reducing funding for university research. As I mentioned earlier, federal research grants in constant dollars peaked at about \$100 billion in 1990, the year after the fall of the Berlin wall – a good marker for the end of the Cold War. At this point defense accounted for about two-thirds of all university research funding – three-quarters if your include space research. Defense research declined by about 20% during the 1990s and didn't start rising again substantially until 2002, the year after the fall of the Twin Towers and the beginning of the new existential threat known as the War on Terror. Defense research reached a new peak in 2009 at a level about a third above the Cold War high, and it has been declining steadily ever since. Increases in nondefense research helped compensate for only a part of the loss of defense funds (AAAS 2014).

9.4 Conclusion

The American system of higher education came into existence as a distinctly private good. It arose in the nineteenth century to serve the pursuit of sectarian advantage and land speculation, and then in the twentieth century it evolved into a system for providing individual consumers a way to get ahead or stay ahead in the social hierarchy. Quite late in the game it took World War II to give higher education an expansive national mission and reconstitute it as a public good. But hot wars are unsustainable for long, so in 1945 the system was sliding quickly back toward public irrelevance before it was saved by the timely arrival of the Cold War. As I have shown, the Cold War was very very good for American system of higher education. It produced a massive increase in funding by federal and state governments, both for university research and for college student subsidies, and - more critically – it sustained this support for a period of three decades. But these golden years gradually gave way before a national wave of taxpayer fatigue and the surprise collapse of the Soviet Union. With the nation strapped for funds and with its global enemy dissolved, it no longer had the urgent need to enlist America's colleges and universities in a grand national cause. The result was a decade of declining research support and static student enrollments. In 2002 the wars in Afghanistan and Iraq brought a momentary surge in both, but these measures peaked after only 8 years and then went again into decline. Increasingly, higher education is returning to its roots as a private good.

So what are we to take away from this story of the rise and fall of the Cold War university? One conclusion is that the golden age of the American university in the mid twentieth century was a one-off event. Wars may be endemic but the Cold War was unique. So American university administrators and professors need to stop pining for a return to the good old days and learn how to live in the post-Cold-War era. The good news is that the impact of the surge in public investment in higher education has left the system in a radically stronger condition than it was in before World War II. Enrollments have gone from 1.5 million to 21 million; federal

research funding has gone from zero to \$135 billion; federal grants and loans to college students have gone from zero to \$170 billion (NCES 2014, Table 303.10; AAAS 2014; College Board 2014, Table 1). And the American system of colleges and universities went from an international also-ran to a powerhouse in the world economy of higher education. Even though all of the numbers are now dropping, they are dropping from a very high level, which is the legacy of the Cold War. So really, we should stop whining. We should just say thanks to the bomb for all that it did for us and move on.

The bad news, of course, is that the numbers really are going down. Government funding for research is declining and there is no prospect for a turnaround in the foreseeable future. This is a problem because the federal government is the primary source of funds for basic research in the U.S.; corporations are only interested in investing in research that yields immediate dividends. During the Cold War, research universities developed a business plan that depended heavily on external research funds to support faculty, graduate students, and overhead. That model is now broken. The cost of pursuing a college education is increasingly being borne by the students themselves, as states are paying a declining share of the costs of higher education. Tuition is rising and as a result student loans are rising. Public research universities are in a particularly difficult position because their state funding is falling most rapidly. According to one estimate, at the current rate of decline the average state fiscal support for public higher education will reach zero in 2059 (Mortenson 2012).

But in the midst of all of this bad news, we need to keep in mind that the American system of higher education has a long history of surviving and even thriving under conditions of at best modest public funding. At its heart, this is a system of higher education based not on the state but the market. In the hardscrabble nineteenth century, the system developed mechanisms for getting by without the steady support of funds from church or state. It learned how to attract tuition-paying students, give them the college experience they wanted, get them to identify closely with the institution, and then milk them for donations when they graduate. Football, fraternities, logo-bearing T shirts, and fund-raising operations all paid off handsomely. It learned how to adapt quickly to trends in the competitive environment, whether it's the adoption of intercollegiate football, the establishment of research centers to capitalize on funding opportunities, or providing students with food courts and rock-climbing walls. Public institutions have a long history of behaving much like private institutions because they were never able to count on continuing state funding.

This system has worked well over the years. Along with the Cold War, it has enabled American higher education to achieve an admirable global status. By the measures of citations, wealth, drawing power, and Nobel prizes, the system has been very effective. But it comes with enormous costs. Private universities have serious advantages over public universities, as we can see from university rankings. The system is the most stratified structure of higher education in the world. Top universities in the U.S. get an unacknowledged subsidy from the colleges at the bottom of the hierarchy, which receive less public funding, charge less tuition, and

116 D.F. Labaree

receive less generous donations. And students sort themselves into institutions in the college hierarchy that parallels their position in the status hierarchy. Students with more cultural capital and economic capital gain greater social benefit from the system than those with less, since they go to college more often, attend the best institutions, and graduate at a much higher rate. Nearly everyone can go to college in the U.S., but the colleges that are most accessible provide the least social advantage.

So, conceived and nurtured into maturity as a private good, the American system of higher education remains a market-based organism. It took the threat of nuclear war to turn it – briefly – into a public good. But these days seem as remote as the time when schoolchildren huddled together in a bomb shelter.

References

- American Association for the Advancement of Science. (2014). *Historical trends in Federal R & D: By function, defense and nondefense R & D, 1953–2015*. http://www.aaas.org/page/historical-trends-federal-rd. Accessed 21 Aug 2014.
- Bledstein, B. J. (1976). The culture of professionalism: The middle class and the development of higher education in America. New York: W. W. Norton.
- Boorstin, D. J. (1965). Culture with many capitals: The booster college. In *The Americans: The national experience* (pp. 152–161). New York: Knopf Doubleday.
- Brown, D. K. (1995). Degrees of control: A sociology of educational expansion and occupational credentialism. New York: Teachers College Press.
- Carter, S. B., et al. (2006). Historical statistics of the United States, millennial education on line. New York: Cambridge University Press.
- College Board. (2013). Trends in student aid, 2013. New York: The College Board.
- College Board. (2014). Trends in higher education: Total federal and nonfederal loans over time. https://trends.collegeboard.org/student-aid/figures-tables/growth-federal-and-nonfederalloans-over-time. Accessed 4 Sept 2014.
- Collins, R. (1979). The credential society: An historical sociology of education and stratification. New York: Academic.
- Douglass, J. A. (2000). The California idea and American higher education: 1850 to the 1960 master plan. Stanford: Stanford University Press.
- Garrett, T. A., & Rhine, R. M. (2006). On the size and growth of government. *Federal Reserve Bank of St. Louis Review*, 88(1), 13–30.
- Geiger, R. L. (2004). To advance knowledge: The growth of American research Universities, 1900–1940. New Brunswick: Transaction.
- Goldin, C., & Katz, L. F. (2008). The race between education and technology. Cambridge: Belknap Press of Harvard University Press.
- Institute of Higher Education, Shanghai Jiao Tong University. (2013). Academic ranking of World Universities – 2013. http://www.shanghairanking.com/ARWU2013.html. Accessed 11 June 2014.
- Levine, D. O. (1986). The American college and the culture of aspiration, 1914–1940. Ithaca: Cornell University Press.
- Loss, C. P. (2011). Between citizens and the state: The politics of American higher education in the 20th century. Princeton: Princeton University Press.
- Martin, I. W. (2008). The permanent tax revolt: How the property tax transformed American politics. Stanford: Stanford University Press.

- McPherson, M. S., & Schapiro, M. O. (1999). Reinforcing stratification in American higher education: Some disturbing trends. Stanford: National Center for Postsecondary Improvement.
- Mortenson, T. G. (2012). State funding: A race to the bottom. *The presidency* (winter). http://www.acenet.edu/the-presidency/columns-and-features/Pages/state-funding-a-race-to-the-bottom.aspx. Accessed 18 Oct 2014.
- National Center for Education Statistics. (2014). *Digest of education statistics*, 2013. Washington, DC: US Government Printing Office.
- National Science Board. (2012). Diminishing funding expectations: Trends and challenges for public research universities. Arlington: National Science Foundation.
- Potts, D. B. (1971). American colleges in the nineteenth century: From localism to denominationalism. *History of Education Quarterly*, 11(4), 363–380.
- President's Commission on Higher Education. (1947). *Higher education for American democracy*, *a report*. Washington, DC: US Government Printing Office.
- Rüegg, W. (2004). European universities and similar institutions in existence between 1812 and the end of 1944: A chronological list: Universities. In R. Walter (Ed.), *A history of the university in Europe* (Vol. 3). London: Cambridge University Press.
- State Higher Education Executive Officers (SHEEO). (2013). State higher education finance, FY 2012. www.sheeo.org/sites/default/files/publications/SHEF-FY12.pdf. Accessed 8 Sept 2014
- Terkel, S. (1997). The good war: An oral history of World War II. New York: New Press.
- Tewksbury, D. G. (1932). The founding of American Colleges and Universities before the Civil War. New York: Teachers College Press.
- U of California Data Analysis. (2014). *UC funding and fees analysis*. http://ucpay.globl.org/funding_vs_fees.php. Accessed 2 Sept 2014.
- University of Virginia. (2014). Financing the university 101. http://www.virginia.edu/finance101/answers.html. Accessed 2 Sept 2014.

Chapter 10 Change of Discourses: Theoretical Perspectives for US Teacher Education

Lynda Stone

Historians and philosophers in this volume offer studies of discourses of change and changes within discourses in education. This essay takes up a complementary conception of change, that is change of discourses, alternative and different discourses most importantly with a common referent. The referent of this chapter is an event in a lesson for prospective teachers, its several contextualizations, and its text basis. The encapsulation of this discursive entity is a prevalent term describing education as teaching-and-learning.

The essay is structured as two sets of movements starting with an event. Following are three main discourses that present differences in conceiving discourse. The first two are singular contributions, that is as themselves unities. The last one has several sub-parts and alternatives. The first introduces 'discourse'; the second is from James Gee; and the third is both from Michel Foucault and from two significant theorists influenced by him, Hayden White and Ian Hacking. Based in the event, the second set of movements are two returns as applicative responses to the different discourses and as indicative of change. The essay closes with a final return for US teacher education.

10.1 Teacher Education Event

In a course I was teaching on American schools, we were reading journalist Jonathan Kozol's recent investigative text, *The Shame of the Nation: The Restoration of Apartheid Schooling in America* (2005). At the same time, I co-conducted a peer teaching review of a colleague as required by the university. His was a one-unit, 15 h course in Introduction to Teaching for outstanding senior

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undergraduates in math and science in a special credential program. The lesson was part of brief instruction in classroom management: it featured a set of slides and the professor's demonstration of the technique 'seat signals.' The students turned to their textbook, watched a demonstration by the instructor and practiced the signals. Beyond any mention of technique, there was no other attention to the lesson. My co-evaluator gushed, "They are practicing... [deaf] sign language."

I was already upset by the blatant behaviorist activity, the lack of discussion let alone critique, and the denigration of deaf culture. Imagine my further dismay when my class and I turned to the Kozol chapter, 'The Ordering Regime.' In this book, he reports on a set of specific policies and practices of 'school reform' meant for the most part for urban US poor children of color. Kozol is known as an activist educator, the writer of critical exposes of US unequal education since the last 1960s, and the winner of many awards.

In the chapter, Kozol describes his entry into a fourth grade classroom in an elementary school in the New York City borough neighborhood of the South Bronx. He writes,

My attention was distracted by some whispering among the children.... The teacher's response to this distraction was immediate. His arm shot up and out in a diagonal in front of him, his hand straight up and his fingers flat. The young co-teacher did this.... When they saw their teachers do this, all of the children did it too.

"Zero noise," the teacher said.... The strange salute the class and teachers gave to each other, which turned out to be a number of such silent signals teachers in the school were trained to use, and the children to obey, had done the job of silencing the students.

"Active listening" said... [the teacher]? "Heads up! Tractor beams!"... "Every eye on me". (2005, pp. 66–67)

The Kozol rendering is an instantiation of Technique Number 34 in the widely selling teacher education textbook, *Teach Like a Champion: 49 Techniques that Put Students on the Path to College* (2010) from educational entrepreneur, Doug Lemov. He is a former school principal and key member of a non-profit charter management organization, Uncommon Schools. His taxonomy of teaching techniques has gone through numerous revisions based on personal investigation and conceptualization.

In what follows, this event at my university is initially returned to in two historical moments of a conceptual present and a societal present that assist in understanding its significance. Prior to this, a claim is begun that this event need be understood as a representation of discourse. It will be positioned as a particular and current discourse in US teacher education known as the couplet teaching-and-learning. First an introduction to 'discourse.'

10.2 Discourse One: A Concept

'Discourse' is ubiquitous. It is a concept that seems everywhere, possessed by any number of persons and institutions as they relate to language and communication. It has achieved popular, commonsense status, even given that its meaning is somewhat ambiguous. It connotes identity, in terms of narrativity, commonality and distinction, for any singular event and also in relation of one to other discourses. While French literary critic, Roland Barthes (1986, p. 127) locates its origin and presence as ancient from the rhetoric of Gorgias to that of the nineteenth century, it has assumed a very contemporary location following the linguistic turn in twentieth century intellectual life. The latter is the time in western thought when language, its structure and use, began to be understood for its basic role in human intelligibility. Inherent in discourse, at least in latemodern formulations, is that language and intelligibility themselves change over time. And of course so do conceptions of discourse. Other general characteristics include demarcation and distinction. These qualities mean that discourses have histories.

Returning to intelligibility, another general idea is that a discourse—with a nod here to the French theorist Michel Foucault turned to subsequently—'comes to be' through linguistic accumulation and repetition. To emphasize and repeat, it names what for the moment is legitimate in a language-based identity and what is not. Discourses contain superordinate and subordinate elements, sub-concepts, tropes, metaphors. In addition discourses function relative to related cultures, societies, institutions, associations and the like. Historically, discursive systems were meant to "take the banner of truth or goodness" (Lesko 2012, p. 13). Today, when taken as natural or even philosophical, their meaning does not necessarily fulfill these metaphysical criteria.

In addition to popular, public usage, discourses both organize and are found across academic disciplines. American educational theorist Keith Sawyer points to a standard use at least in Anglo-American social science research from about the mid-twentieth century that focused on language units composed basically of sentences and their extended organization and meaning. This changed in subsequent decades, in his view, to a more broad use "in cultural studies and in social theory... [that] encompasses much more than language" (Sawyer 2002, p. 434). If this tradition is the basis for the field of Gee's 'discourse analysis' taken up below, literary critic, Paul Bové (1995) names another initiating tradition in Anglo-American literary criticism, especially the writings of the New Critics. Herein a focus was genres and their limits. Importantly a shift into a postmodern perspective saw the blurring of genres—and by extension all intellectual venues. Bové provides a useful summary:

[The] very utility of... [any] particular discourse... [is] that it must be seen as functional and regulative. It hierarchizes... identity and difference, authority and subservience, taste and vulgarity, and continuity and discontinuity.... [We] might say that it shares in the operation of a generalized discourse in our society that constitutes its most basic categories of understanding and thought. (p. 52)

He continues that the concept of discourse can no longer be defined nor questioned for its essential meaning (p. 53). Paying special attention as he does to Foucault, one way to think about discourses is what they do, how they function, and thus how they manifest change.

10.3 Present One: Institutional Context

Introduced above, the teacher education event takes place in a historical moment, an educational and societal present. Histories of the present are Foucault's name for two aspects of any discursive event: events today can attain insight from moments in the past and any event occurs in a particular time. In teacher education and educational research in general, this is often described as 'context.' An important point in this essay is to recognize a strong 'historicist' stance: singularity per se. Not just commonsense but theoretically, no event is ever exactly like any other.

In the USA today, a dominant discursive formulation is known as teaching and learning. For emphasis it is a couplet, teaching-and-learning that has significant implications. The term is meant to encapsulate what is 'best practice,' 'what works' in the interactions of teachers and students that leads to knowledge, to academic achievement. It is central to a political discourse of standardization and accountability—what virtually every teacher recognizes as their role in an emphasis on testing. This is the latest moment in a national reform effort begun now several decades ago in an attempt to 'have all children learn.' Sub-discourses include reference to legislation to 'leave no child behind;' a current instructional sub-discourse concerns the chief curriculum of testing known as 'common core.'

As prospective teachers practice 49 techniques to make them effective teachers, they commonly learn a bit of teacher education history and approaches to their practice. One set of terms applies to general approaches, known as 'traditional' and 'progressive.' These are often set up dualistically. Two sets of examples illustrate teaching practices and teacher preparation: First, elementary and secondary schooling, child-centered and teacher-centered instruction, group work and individual or individualized instruction, experience and subject matter, inquiry and lecture, activity and seatwork. Second, teacher training and teacher education, pre-service and in-service education, the art and science of teaching, teaching methods and foundations, humanist and critical pedagogy, experience-based and evidence-based practices, commonsense and research in teaching-and-learning.

The event framing this essay occurs in a preparation program in which methods and foundations are treated in separate courses. Both are part of, it should be noted, a well-regarded advanced Undergraduate and Master's degree program in a state's flagship university. In the program both are central to a reform stance to teaching: all teachers are to make a difference right from entrance into the profession. Differences among university teacher educators exist as to how to do this. What often seems to happen to a teaching discourse reform is that new teachers experience a press of 'tradition' in schools and classrooms. Tradition is manifest in teacher-centered, standard and common instruction, emphasis on subject matter for testing, lecture and seatwork that trump all alternatives.

10.4 Present Two: Societal Context

Teaching-and-learning in a current US schooling moment must be understood in a second context, one that is societal. It is often presented in foundations courses as a historic stream of conditions and educational responses such as cycles of basics-experiment-basics. Here is the moment: On every American's mind as this chapter is being written is once again the character of national race relations. Michael Brown and Eric Garner, two African-Americans, die in questionable circumstances at the hands of white police, events that are 'followed' by the gunning down of two minority police, Latino and Asian, by an African American male. Attempts at discursive intervention to cool feelings that include individual case facts and attributions of mental health issues cannot mitigate the larger societal issues of racism, of justice, and importantly for schooling, broad social, economic, and political inequalities. Recall that these are the conditions that Kozol documents.

If these events take center media stage now, not far off national attention is perception of the ineptness of the US federal government. First is relatively recent national elections in which a pattern is repeated: a political party in power is tossed out by a second in a frenzy to 'try something new.' What is new, by the way, is what is already old; it continues. To borrow journalist George Packer's (2013) term, this 'unwinding' is accompanied by America's war machine that is still alive and 'well' in Iraq, Afghanistan and Syria. Terrorist practices and accompanying discourse continues amid beheadings and local attacks affecting the nation and its western allies. Given this essay's focus on the USA, the national mood remains, it seems, inevitably one of dispirit, unease, and a need for control.

This need for control, out of insecurity and fear for groups and individuals, is extended into schools and classrooms in discursive-based practices that, indeed, now seem normal. Control is tied to two interrelated discursive elements of security and management within a system of discipline, itself based in consequences and punishments. Implied above, in the US, a prevailing belief is that minority males are the cause of trouble. This is in spite of facts that school and other mass shootings have been overwhelmingly perpetrated by white usually-young adults, and that in general youth violence statistics have declined in recent decades.

At the school level surveillance prevails in widespread use of cameras, locked doors and the presence of gun carrying resource officers. In my own state, it has been proposed that people can bring guns on to university campuses and school teachers can carry concealed weapons! While there has been some decline in zero tolerance discipline policies, minority youth are still subject to much more suspension than their white peers and the school-to-prison pipeline remains strongly in play. Control, overall, is maintained in putting people in prison, often for minor drug offenses, and the US is among the very top nations in the world with the highest number of incarcerated persons, often youth. Those with criminal records in addition have trouble reentering a society in which there are obstacles in finding jobs, owning property and obtaining loans, and gaining franchise.

10.5 Teaching-and-Learning Discourse One: A Return

The dominant discourse of teacher education and teaching today is best seen now as a triplet, teaching-and-learning-and-security. Both Kozol read in a foundations course and Lemov taught in a methods course in teacher education recognize and work with this discourse even though its appellation is not precisely in the texts. It is, to emphasize, the discursive formulation that current prospective teachers and their more experienced peers learn to take for granted. Greatly critical, Kozol names security and discipline practices, especially in urban schools of the poor as a "pedagogy of direct command and absolute control" (Kozol 2005, p. 64). Two common practices to extend those mentioned above are, first, in-school suspension. This is a punishment that when pupils are tardy, they are removed to a classroom different than their own thus doubling the time out-of-class. Another practice that Kozol does mention is silent halls and lunch: imagine young people eerily quiet among themselves in what ought to be social times in school—an extension of the idea of silent signals. This is normal and beneficial?

To step back for a moment. The point here is not to recall a golden time in schools when these measures were not necessary, nor to suggest that schools and classrooms should not have order, procedures or routines. The latter, however, need not be primarily for control, management, and discipline.

One more point about current discourse transits to a brief relook at 49 Techniques. It is important to understand that the second element of the triplet is itself central; American schools are to emphasize 'learning' and of 'knowledge.' The latter is 'achievement' and is recognized through testing. The discourse here connects to another—that of the American Dream and its individualist, meritocratic base. Children learn early and retain as adults the idea that certain forms of achievement are important for 'one to get ahead.' Individuals then aggregate their value for the nation into a global context. America's achievement gap is the goal that minority and poor children need to achieve as their majority and more privileged peers. The best way to fulfill 'the dream,' moreover, is to go to college. Those primarily responsible for this fulfillment are teachers and their students in schools and classrooms: no matter the larger societal conditions.

The subtitle to Lemov's textbook (2010) points to this discursive base, the aim of "putting students on the path to college." The important point here is to contrast his approach to reform—and perhaps his view of knowledge espoused—to that of Kozol. A second example informs in a chapter entitled 'Planning that Ensures Academic Achievement.' It contains six techniques and a reflection and practice. The content is on turning a large segment of instructional planning into smaller units for lessons. The idea, Lemov intones, is to "begin with the end" (p. 59) and determine specific objective segments that should be manageable, measurable, made first, and be the most important. The text actually includes the reminder: Because this is "what's important on the path to college and nothing else" (p. 62). In spite of Lemov's good intentions discussed

next, a question occurs about the purpose of schooling and the form of knowledge that matters most. This is only going to college reached through knowledge that is easily testable.

To be fair to Lemov, in his version of teaching-and-learning, he does introduce the book naming teaching as an art and the techniques as foundational skills. He does want teachers who through diligent individual study can "transform students at risk of failure into achievers and believers, and rewrite the equation of opportunity" (p. 2). His art, however, appears merely as tools, his preferred form of knowledge for teaching-and-learning as skills, and his monolithic aim of today's education solely college. The critique here is not to deny the importance of teaching skills nor readiness for college. It is, to repeat, the claim for singular and solitary importance. Lemov's discourse is not his alone.

10.6 Discourse Two: Identity and Communication

Various discourses offer different perspectives on US teacher education. In a field dedicated to educational reform, theories of discourse may provide different paths to reform. One popular contemporary conception of discourse is found in the sociocultural theory and research of a central figure in New Literacy Studies, James Gee (1948-). Currently he holds a Presidential Professorship at Arizona State University; his doctorate is from Stanford University and he has taught at major American universities including the University of Wisconsin-Madison. At first glance, Gee's research popularity appears in part to align with that aspect of the 'dream' that focuses on identity and agency. Gee situates discourse within a wide range of language communication in which saying (speaking and writing in various forms) and doing (conscious and unconscious acting) and being (objects of all sorts including persons) are intertwined as games or practices in contexts. For him there is special emphasis on identities, that is "different ways of being in the world in different times and places for different purposes" (Gee 2014, p. 3). In practices, his claim is, social goods are at stake in which appropriate languagein-use is rewarded. Thus because of the question of social distribution of such goods, language is always political. Uses and distributions, it is important to add, change over time.

Gee's general conception is the basis for a form of discourse analysis that he names "critical." Analysis is "to speak to and, perhaps, intervene in, institutional, social, or political issues, problems, and controversies in the world" (p. 9). What is entailed are research implications for "things like status, solidarity... power... [and just indicated as] distribution of social goods" (p. 87). In commonsense terms, social goods are individual and group "valued knowledge, positions, and possessions" (p. 111). In language-in-use, a basic element is discourse, understood as linguistic but here more. Gee writes,

Discourses are ways of behaving, interacting, valuing, thinking, believing, speaking, and often reading and writing that are accepted as instantiations of particular identities by specific groups... [that are tied to language]... social products of social histories. (Gee 2012, p. 3)

In his early work, Gee focused on conceptual elements of ideology, theory, and meaning as central to discourses and literacies. Part of this work included tracings of the socio-cultural/critical history of basic notions of language, literacy and discourse—and the recognition of theoretical roots and forerunners. These range from formulations of Plato to Russian literary theorist Michail Bakhtin with important acknowledgement of the Vygotskian tradition of social cognition via Americans Sylvia Scribner and Michael Cole.

Useful for analysis of the Lemov teacher education text, Gee offers a first order discourse theory of Discourse (with a capital D) that has current cache in educational research. 'D' becomes the general name for language-in-use from above. It bounds specific "[whos']... ways of recognizing and getting recognized... doing certain sorts of whats" (p. 153, emphasis in original). Persons are born into a primary discourse. Interestingly, ["primary] Discourses can change, hybridize with other Discourses and they can even die" (ibid.). Often, however, for many people one Discourse remains strong. Further, beyond the early years of life, secondary Discourses "are acquired within institutions that are part and parcel of wider communities" (p. 154). Schools are among these institutions and surely are university teacher training programs. Finally each person engages in multiple discourses. With regard to his general project and reference to Foucault, Gee adds this: "All discourses are the products of history.... It is sometimes helpful to say that it is not individuals who speak and act, but rather that historically and socially defined Discourses speak to each other through individuals" (p. 159).

Continuing its theoretical development, Gee's Discourse founds a process of discourse analysis of sentences in context that is distinctive from other formulations that reductively focus on relations of sentences as they follow each other in texts of inherent meaning (Gee 2014, p. 20). Thus situated meaning for him identifies "the interesting property of both reflecting the situations in which... [Discourses are employed] and helping to create those same situations for what they mean or portend" (p. 22). Meanings differ in different contexts. Context in this theory includes the physical setting of communication and everything in it. Here is a representative list: "bodies, eye gaze, gestures and movements of those present; what has been said and done ... [previously]; any shared knowledge those involved have" (p. 119). Part of the analytic research task is to use only parts of the context "to... [figure] out what the speaker or writer means to say" (ibid.).

Added to sub-concepts of situated meaning and context is Gee's adaptation of a theory of figured worlds. This body of research is taken into education from a critical, socio-cultural anthropology (Holland et al. 1998). Figured worlds for Gee is a development out of earlier 'cultural and discourse models.' Two aspects

are significant, what is described as 'worlds,' and how they relate to persons and institutions. Here is Gee: First.

figured worlds are simplified, often unconscious and taken-for-granted theories or stories about how the world works that we use to get on efficiently in our daily lives.... [Our experiences with them] are guided, shaped, and normed by the social and cultural groups to which we belong.... [Second, they are the ways that people] construe aspects of the world in their heads... in terms of stories, ideas, and images.... [Third] they mediate between the "micro"... [local interactional] level of social interactions and the "macro"... complex patterns of institutions and cultures across societies and history. (p. 95)

These patterns are themselves reflected in Discourses. Importantly, while Gee recognizes the theoretical value of figured worlds, he points to limitations. They determine what is central or marginal but they may also be exclusionary even discriminatory and thus harmful. They are more accurately understood among those who are similar but should, Gee contends, actually be helpful in appreciating those who are different (p. 101).

10.7 Teaching-and-Learning Discourse Two: Another Return

Thus far two conceptions of discourse have been presented, the first one generally conceptual and the second from relatively familiar writings of Gee. Given these, prospective teachers can learn to recognize the significance of language and even of theory. A theory of use exists. What becomes the everyday language of teaching-and-learning practice has historic dimensions as well as linguistic. Several ideas are central: First, schooling has a discursive life of its own related to one larger of which they are part, both with specific ways of thinking and talking. Second, the discourse they assume as teachers, even at first consideration, cannot be taken for granted. Moreover, this discourse locates not only who they are but what are their responsibilities as teachers. In its most reductive but vital way, they are to be agents for the learning of students and not-so-benignly those charged with the future of students and of society. Of course, other institutions such as family, religion, and media are also responsible but teacher responsibility is unique.

Gee's theorizing provides more specifics that are evident above and do not need repeating. In addition to use, a theory of identity exists. To summarize: Individual and group identities are encapsulated in Discourses that are learned and internalized. They function significantly through communication of who one is and what one does often without consciousness of the Discourse itself. They form, to extend, figured worlds that assist in navigating lives that in turn can be identified as comprised of cultures, traditions and languages. One such culture is the school and schooling practices within, today as the discourse of teaching-and-learning. One sub-culture is the interactive lives of teachers and students, how they are influenced by and contribute to the cultural discourse of teaching-and-learning.

Continuing, cultures are aspects of context and Gee accounts for a shared, larger context. Important for him is the "reflexivity" of language and context as they function in this case in schools and classrooms (Gee 2014, p. 120). The theory for actual analysis is multilayered "based on what is explicitly said and on what we infer from context" (ibid.) Elements of communication include sign systems and forms of knowing, persons' relationships and their connections, as well as a larger politics. Recall from above the intertwining of individual identities and the societal distribution of social goods.

A Discourse analysis of 49 Techniques is surely possible and given the addition of Kozol's testimony offers an initial stance toward teaching-and-learning that can be conceptualized as 'critical.' Surely new teachers can enter their profession with some understanding of the complex phenomenon of schooling. However, one aspect remains in place even with some wariness: this is the belief that teachers can and do possess agency that can make 'the difference.' All three writers thus far, Kozol, Lemov and Gee, agree about difficulty but nonetheless posit teacher, and indeed student, identity as basic. Identity equals agency both that of individuals and of groups.

One response to a promotion of individual teacher identity and agency also is critical. Too briefly put, if teaching difficulty and student failure to achieve are not an agent's fault, it is the fault of what teachers learn to call 'the system'. Fault must be placed somewhere. The system refers to what in a large counter-literature in teaching-and-learning is the discourse of 'structure.' Structural inequalities are those named above, social, economic, political, those represented in actual material conditions attributed to race, class, gender, residence and more. This critical discourse is presented currently across the US in many teacher education programs but importantly not in connection to methods. Debates about the relationship between the two are most often found in foundations courses described above. Here Lemov is telling: "[Many of the tools likely to yield the strongest classroom results remain essentially beneath the notice of our theories and theorists of education (Lemov 2010, p. 7). Given a split between theory and practice, complex realities are masked and teachers, especially new ones desiring to 'teach well,' lack the language and insight to work toward change.

10.8 Discourse Three: Alternatives 'Beneath' Discourse

At this point, with two discourses and two returns set out, a relatively straightforward conception of changes of discourse becomes more complex, more theoretical. What follows is certainly less obvious for prospective teachers but can assist in their developing more sophisticated ideas about what they do. In the rest of this essay, the focus is a set of three theoretical alternatives to 'get beyond' and 'beneath' the current popular discursive formulations of teaching-and-learning. In effect, this is to try to understand where discourse comes from, especially how language

functions. Following, the conclusion will point to possible changes in reform but detailed applications of discourse three are beyond the essay's scope.

The third discourse theory is actually two, inspired by the theorizing about discourse from French philosopher (historian and sociologist) Michel Foucault (1926-1984). As from Sawyer and Bové above, in much writing on discourse today Foucault's name and ideas are referenced. After a situating of Foucault, the two alternatives are from American literary historian, Hayden White (1928-) and Canadian philosopher, Ian Hacking (1936–). A bit of biography: White is recently retired from Stanford University with much of his career as a prime figure in the History of Consciousness program at the University of California Santa Cruz with its multidisciplinary, postmodern flavor. His early work schematized a 'structural analogy' between western literature and history; his later work influenced by Foucault took turns to narrative and rhetorical 'styles' of discourse. His 1973 paper, available in the collection, Tropics of Discourse: Essays in Cultural Criticism (White 1978), may well have been the English-language introduction of Foucault to Anglo-American criticism. Hacking is recently retired from the University of Toronto having spent a decade as the first Anglo-American to hold a permanent chair at the Collége de France. His self-named chair was Philosophy and History of Scientific Concepts. Trained at Cambridge in analytic philosophy, he still so identifies but one might posit 'ironically', also as a 'historian of the present.' Across his philosophical writings he has retained interest in and re-described various 'discursive practices' in natural and social sciences under the influence of Foucault. Both have continued publishing in recent decades.

Foucault's *oeuvre* begins in attention to 'discourse' and arguably always countenances it. Again a biographical note. Educated initially as a middle class son during the chaos of WWII in provincial France, Foucault struggled and ultimately entered the top French schools. His was never an easy time. Completing some 'graduate' requirements, he assumed a series of university administrative positions with some teaching. Even though publishing previously, his career took off in France with the publication of his historical-structural analysis of the modern European human sciences, *The Order of Things* (1970). This was followed by *The Archaeology of Knowledge* (1972), his most direct discussion of language as functioning 'historically' in knowledge. This latter text is returned to briefly. His career culminated with his own appointment, not without controversy, to the *Collége de France* with a previous self-named position, Chair of History of Systems of Thought in 1970. He died prematurely in 1984.

In general, Foucault's work has been 'divided' into three methodological periods after some initial writing that focused on psychology. The first phase, archaeology, culminated in the two volumes above. The second, genealogy, is referred to most often in education in his book, *Discipline and Punish* (1979), and the third variously is named ethics or problematization. Out of these a triplet of Foucault's own is derived: power/knowledge/subjectivity. Foucault's writings, above all, have to be understood in the French intellectual tradition to which he belongs and to which he responds. His is best represented as a relational theory of discourse: discursive relations to non-discursive relations to broad relational conditions.

Much argued, for instance, is whether methodology one and its conception is conflated into methodology two, also whether one can 'do' Foucault singularly without all three methodologies or adapted to other philosophical tasks such as analysis. In typical French irony, his response to such questions was 'just do the work'. In critical educational thought, his triplet, a central point of this essay, is often mistakingly conflated as a kind of structural support of agency!

10.9 Discourse Three A: Foucault

Before turning to White and Hacking, more needs be set out about what Foucault had to say about discourse. Bové, again from above, places his writings in a contemporary poststructuralist tradition, whether Foucault would have liked the designation or not. From his influence, the evolved idea of discourse is that "its aim is to describe the surface linkages between power, knowledge, institutions, intellectuals, the control of populations, and the modern state as these intersect in the functions of systems of thought" (Bové 1995, pp. 54–55). The tradition, and Foucault's particular 'researches', offer what Bové calls "a kind of nominalism" (p. 56) in which discourse functions as random but organized anonymity of representations of the world: In a paraphrase of the idiom of philosopher Richard Rorty, 'there is no world out there that is true,' no matter how material.

Foucault's conception of discourse is best located in his most structuralist work, *The Archaeology of Knowledge* (1972). Arguable, whether later texts 'forgot' the concept of discourse or not (Sawyer 2002, p. 441), it seems right to say that Foucault would not have abandoned the centrality of language across his diverse studies. The central concept, in Foucault's understanding of their displacement and transformation, perhaps is the statement as part of enunciation. A paraphrased summary of their function in discourse is thus: Statements, positive, existing utterances or enunciations, accumulate as events in series, and become stacked up. Their regularity is naturalized into such organized bodies as disciplines. The latter as other discursive formations function for Foucault as 'regimes (later games) of truth. Offering a sense of 'discourse,' from *The Archaeology* (Foucault 1972) here is Foucault:

A statement must have a substance, a support, a place, and a date (p. 101).... There is no statement that does not presuppose others; there is no statement that is not surrounded by a field of coexistences, effects of series and succession, a distribution of functions and roles (p. 99).... [An] enunciation is an unrepeatable event (p. 101).... [It may take] the general form of a sentence, a meaning, a proposition... [but is not the same] (ibid.).... [While irreducible] the enunciative function [has a]... repeatable materiality... [that circulates as] one of those objects that men produce, manipulate, use, transform, exchange, combine, decompose and recompose, and possibly destroy. (p. 105)

Overall, what must be kept in mind is Foucault's general project, not just the description of discursive functions in their larger enunciations but as a 'politics of warning'. From his inaugural lecture at the *Collége de France* in 1970, *The Discourse on Language*, this is his 'working hypothesis'.

I am supposing that in every society the production of discourse is at once controlled, selected, organized and redistributed according to certain number of procedures, whose role is to avert its powers and its dangers, to cope with chance events, to evade its ponderous, awesome materiality. (Foucault 1971, p. 216)

10.10 Discourse Three B: White

As indicated above, White's key essays on Foucault appeared in the 1970s, the first published near the time the latter's work appeared in English and the second relatively near his death. The first places Foucault within and without the French tradition of linguistic structuralism with reference to *The Order of Things* (and earlier, *Madness and Civilization*). The second treats Foucault's texts through his genealogical research phase into the first volume on the *History of Sexuality*, one of his last three substantive works. Importantly for Foucault and White, a view of history underlies philosophical theorizing.

In the first essay, White emphasizes Foucault's separation from western 'tradition' in several ways. From above, there is an insistence that all disciplines including those about language remain "captive of the linguistic protocols in which their interpretations of their characteristic objects of study are cast... [and] have no referents in reality" (White 1978, p. 231, emphasis in original). Moreover this position is particularly significant for the discipline of history. As White puts this, "Foucault writes 'history' in order to destroy it as a discipline, as a mode of consciousness, and as a mode of (social) existence" (p. 234). Across time, history is understood as differences, ruptures, dis-junctures, and discontinuities—Foucault's characteristics of change. In his earliest historic descriptions, change also occurs relative to distinct time periods. In *Order*, in White's term, history is "an archipelago, a chain of epistemic islands, the deepest connections among them which are unknown—and unknowable" (p. 235). Each 'island is "locked within a specific mode of discourse" (p. 241).

White's significant contribution to the perspectives of this essay is a figurative or literary interpretation of Foucault's conception of discourse rather than one linguistically and analytically structural. His term for Foucault's discourse is 'style.' He writes, "Style is the name... [for] the mode of existence of word events arranged in a series displaying regularity and having specifiable conditions of existence" (White 1987, p. 111, emphasis in original). In language used above, there are identifiable discursive and non-discursive relations that constitute style—and with reference to Foucault's own "obviously self-conscious... manner of utterance" (p. 109).

In his own style, White's characterization adds much to understanding Foucault's discourse—even as both his own and Foucault's descriptions are atypical and complex in western history and philosophy. The second essay is particularly interesting because by its publication, much of Foucault's writings were available in English. Out of White's trope and Foucault's own mention of the term from time to time, style reveals the following characteristics. First, discourse has no ground, no origin, no end, no transcendental system to which appeal can be

made. Paraphrasing Foucault, White writes, "[discourse] need not have come into existence at all" (White 1987, p. 109). Its character is entirely different from all other theories of language and meaning: This is because there is "no distinction between signifier and signified, subject and object, sign and meaning" (ibid.). As such, and as everything else for Foucault, it is against all authority: no tradition of coherence even across Foucault's own texts, authorial intention, and historical location.

Given what it is not, discourse is what White names as a "verbal something in the place of the nothing that occasioned it" (pp. 110–111). It is, however, a "certain constant manner of utterance" (p. 109), a functioning event. Further, it is necessarily "self-dissolving of its own authority" while still filling space based in utterance. Constancies of utterances in various studies via multiple methodologies reveal dominant tropical discourses in particular time periods. Because for Foucault all is 'surface,' different, and particular, he provides evidences of changing systems of reason but without any necessary connection, evolution or advancement (even as events might seem so as in *Order* or *Discipline*). His project is not to support 'X but to ask 'how X comes to be.' In the present day, this is especially important with regard to the appearance of the modern, agentive self, the focus especially of the last two volumes of his work.

A reminder: Focusing on discourse in this essay cannot pay adequate attention to Foucault's preoccupation with three types of problems that comprised the content of his studies, "truth... power... and... individual conduct" (White 1987, p. 135), the triplet introduced above. Now, to sum for this essay: discourses change constantly, are particular but always related in difference to other discourses.

10.11 Discourse Three C: Hacking

Throughout contemporary literatures bringing together history and philosophy for inquiry, Foucault, White, and Hacking have been serially and together referenced with regard to language and discourse. Recall above, naming Foucault Gee writes, "All discourses are the products of history. . . . It is sometimes helpful to say that it is not individuals who speak and act, but rather that historically and socially defined Discourses speak to each other through individuals" (Gee 2012, p. 159). Additionally he lauds Hacking's writings on "making up people" (Gee 2014, p. 29); at least tangentially Gee's theorizing on Discourses connects to Foucault. This is elucidated via Hacking's Foucauldian adaptation of 'objects'.

As White, Hacking's work brings together interpretations of history and philosophy in the 1970s and 1980s with two initial and revised pieces on Foucault, first a talk and later publication, 'Michel Foucault's Immature Science' from 1979 (Hacking 2002), and second an essay, 'The Archaeology of Michel Foucault' from 1981 (Ibid.). In Hacking's clear explication of comparing distinct American and continental philosophical and scientific traditions, Foucault's discourse in

power/knowledge is explicated in very usable terms. For present purposes, here once again is a summary.

Systems of thought have a surface that is discourse.... [They are best recognized as] the surface of all that is actually said, and...nothing else.... [They form] systems of thought... [that] are both anonymous and autonomous. (Hacking 2002, pp. 91, 90)

While in this work Hacking names sentences as central to discourses (he may not like 'statement' employed above,) he does acknowledge that for Foucault discourse "includes tentative starts, wordy prolegomena, brief flysheets, and occasional journalism" (p. 90). Any system of thought, further 'arises' out of an a priori depth, an archive, that "is not a conscious part of that thought and perhaps cannot even be articulated in that thought" (ibid.). What is important here is that, although of course individuals think and act, discourse, is not encapsulated in concepts pointing to consciousness and individual intent. Two aspects are particularly salient. One is that given this 'structure,' discourses exist in a space of possibilities in which something is uttered and something is not. Two is that utterances are not only nominalist but also are in systems characterized as discontinuous and incommensurable. Nonetheless, for Hacking via Foucault "normal discourse does get a grip on us.... [as] objects that constitute themselves in discourse" (p. 95, 98).

The general influence of Foucault on White's own philosophy of history is beyond this essay as his texts are specific critical reviews. In contrast, Hacking's debt is spelled out by him in the 2002 collection of essays, *Historical Ontology*, just cited. Taking up Foucault's question of 'how x comes to be,' he names himself a "dynamic nominalist,' "interested in how our practices of naming interact with the things we name" (p. 2). He utilizes the three axes of Foucault's studies described above as 'modes of constituting ourselves,' as participants in anonymous arrangements of knowledge, power, and "as moral agents" (p. 3). Agents as persons, in his theory, are discursively and materially constructed as 'human kinds.'

The best statement of Hacking's human kinds of found in his 1999 text, *The Social Construction of What*? For emphasis: Hacking asserts that Foucault's 'ethics' is a project on self-improvement, that "the demands of morality are constructed by ourselves, as moral agents" (Hacking 1999 p. 46). Note that it has been a matter of debate how humanist and Kantian Foucault was in his last writings. Now, recall Hacking's project about object construction. Out of it, he describes kinds: natural, indifferent, interactive, and human. All four are "in the world" (Hacking 1999, p. 22) and by extension are at the least discursive since 'something can be said about them'. His objects project was to distinguish those that are in nature, natural and indifferent because they "are not aware of how they are classified and do not interact with their classifications" (p. 106). While natural kinds may interact in indifferent ways (as water wearing away rock) human kinds are effected—changed—and may change relative to classifications. Unlike nonhuman kinds, human kinds could have been and can be different.

Alternatives from Foucault on discourse from White and Hacking are their own philosophical distinctions written as very significant theorists in their own rights.

Even between they posit the theme of this essay that changes in discursive theories reveal difference and together relation and change.

10.12 Final Return: For Teacher Education

In the two previous returns to the contemporary teacher education of teaching-and-learning, two theories of discourse have been posited. One is a straightforward idea of everyday, commonsense use. Out of it prospective teachers are to learn that language matters, that discourses organizing linguistic and material practices have histories. Further, and most important, they are to learn that what might be termed 'professional expectations' of teaching are embedded in discourse: they are to be the agents of student learning and are, in the eyes of others and themselves, primarily responsible. Student futures are in their hands; they are 'to make a difference.'

The second theory, easily relatable to the first, is one of identity. This is the idea that the discourse of teaching becomes a Discourse (with Gee's capital letter) of the molding of who each of them is, who teachers in general are, and who they are to become in practice and profession. This identity, moreover, is itself part of a layered context, particularly of 'what is said' in a societal set of 'structures', the school, the community, the culture(s), the politics and so on. This second theory adds further complexity to the first and both can be useful in attending to 49 Techniques. The issue from the discourse of the text is whether teaching-andlearning and teachers can be 'reduced' to a set of tools. No one doubts that procedures, rituals, planning and other specifics of pedagogy are important for learning. However, few teachers today do not have strong doubts about the 'system,' and about a discourse and practice 'culture' of standardization and accountability—and especially of over-reliance on certain forms of testing. They know that teaching and learning (without the couplet) is so much more than this. The point of the first two discourse theories is that prospective and indeed all teachers require a language—a counter-discourse—in order potentially to change the status quo.

The third discourse in the last sections in a turn to Foucault and his inspired writings from White and Hacking may seem distant from 49 Techniques. As the professor conducting the peer review in the originating incident, I think not. Offering these last connections closes this essay. A third theory of discourse emerges, a theory of function. To begin, use and function are different, the first obvious in everyday parlance, the second clearly not obvious. The move here is merely that discourses change as in the essay's title but that changing discourses for an event, a domain, an everyday language reveals distinct changes in what is done. In the remainder of this closing, the focus is on 'Foucault's warning', on the discourse of teaching-and-learning for teachers that does cannot sufficiently explain what, at the least, are complications in their agency. A warning, however, is a start.

Foucault's own project, to add just one more point, was to explore marginalized persons and practices, and in the past, to aid in recognizing both negative and positive effects that might result in the present. Identification of those excluded, for instance, indicates negative discrimination but also positive differentiation. Learning of this itself is a change. With reference to discourse, teachers can recognize the rhetoric of 'reform' that seeks, for example, reform but may produce the opposite. Are teachers thus marginalized? Teachers seeing themselves as singled out for blame, within a larger societal context of schooling and achievement in a democratic society, can be a start of the warning: indeed in his everyday discourse this is what Kozol's investigations make clear.

Next, applying the insights about history and philosophy from White and Hacking requires detail. Examples will suffice. White's discussion of discourse problematizes foundationally what can be made of language in any historic period. From the early Foucault, not only are underlying systems of reason at play at any moment, but also 'getting at them' may be nearly impossible but still informative. As one example, consider what an idea of 'surface' discourse might mean in 49 Techniques: If one imaginatively 'turns the text on its side', see the flatness and repetition in the content, in representation. Is teaching merely 1, 2, 3... to 49 tools presented all in the same (at least similar) manner? As another example, Hacking's discussion of discourse problematizes agency and structure and their relationship in his human kinds. Classification has effects, especially if 'one-size fits all'. Is this agency? Is this teaching?

In the present volume, two principal approaches to the study of change have focused on discourses of change and of change within any discourse. This essay has presented a complementary idea about changes of discourses that bring difference to a unity. As illustrated, the content is not on change itself but what change of discourse brings or reveals. Any discourse is itself fluid, always changing in relationships of present and past, in any present. The closing point is that change is not just a temporal or a logical point but endemic to human intelligibility as such. Significantly, consideration of diverse theories of discourse can affect current linguistic and material practices in US teacher education and can be a start to critical reform.

References

Barthes, R. (1967, 1984/1986, 1989). The discourse of history. In: *The rustle of language* (R. Howard, Trans., pp. 127–140). Berkeley: University of California Press.

Bové, P. (1995). Discourse. In F. Lentricchia & T. McLaughlin (Eds.), Critical terms for literary study (2nd ed., pp. 50–65). Chicago: The University of Chicago Press. (First edition 1990)

Foucault, M. (1970). *The order of things: An archaeology of the human sciences*. New York: Vintage. (First edition 1966, English translation 1971)

Foucault, M. (1971). The discourse on language. In Foucault, M. (1969/1972). The archaeology of knowledge & the discourse on language (R. Swyer, Trans.) (pp. 215–237). New York: Pantheon. (First edition 1971, English translation 1971)

Foucault, M. (1972). *The archaeology of knowledge* (A. Sheridan Smith, Trans.). New York: Pantheon. (First edition 1969, English translation 1972)

- Foucault, M. (1979). Discipline and punish: The birth of the prison (A. Sheridan, Trans.). New York: Vintage. (First edition 1975, English translation 1975)
- Gee, J. (2012). Social linguistics and literacies: Ideology in discourses (4th ed.). London/New York: Routledge. (First edition 2008)
- Gee, J. (2014). An introduction to discourse analysis: Theory and method (4th ed.). London/New York: Routledge. (First edition 1999)
- Hacking, I. (1999). The social construction of what? Cambridge: Harvard University Press.
- Hacking, I. (2002). Historical ontology. Cambridge: Harvard University Press.
- Holland, D., Lachicotte, W., Jr., Skinner, D., & Cain, C. (1998). *Identity and agency in cultural worlds*. Cambridge: Harvard University Press.
- Kozol, J. (2005). The shame of the nation: The restoration of apartheid schooling in America. New York: Broadway paperbacks, Crown.
- Lemov, D. (2010). Teach like a champion: 49 techniques that put students on the path to college. San Francisco: Jossey-Bass.
- Lesko, N. (2012). Act your age! A cultural construction of adolescence (2nd ed.). New York/London: Routledge. (First edition 2001)
- Packer, G. (2013). The unwinding: An inner history of the New America. New York: Farrar, Straus and Giroux.
- Sawyer, K. (2002). A discourse on discourse: An archaeological history of an intellectual concept. *Cultural Studies*, 16(3), 433–456.
- White, H. (1978). Foucault decoded: Notes from underground. In *Tropics of discourse: Essays in cultural criticism* (pp. 230–260). Baltimore/London: Johns Hopkins University Press. (First edition 1973)
- White, H. (1987). The historiography of anti-humanism. In *The content of the form: Narrative discourse and historical representation* (pp. 104–141). Baltimore/London: Johns Hopkins University Press. (First edition 1979)

Chapter 11 From the French Republican Educational Reforms to the ABCD de l'égalité: Thinking About Change in the History of Girls' Education in France

Rebecca Rogers

The French republication reformers who pushed through an impressive array of educational laws between 1879 and 1886 emphasized how these laws promoted one of the central ideological cornerstones of the French revolution: equality. In Jules Ferry's oft-quoted speech at the Salle Molière in 1870, he repeatedly emphasized the need to promote 'equality' within the educational system arguing that inequalities in education inevitably perpetuated inequality within society. The equality he described encompassed, in his words, both that between the social classes and that between the two sexes: "Equality in education is the reconstitution of unity within the family", he argued. As this excerpt suggests, equality between the sexes, in Ferry's view, was a highly gendered concept.²

In the context of the early Third Republic, born out of the defeat against Prussia, introducing equality meant changing a 'system' that was perceived as hierarchical and inherited from an earlier less democratic age. In this sense equality carried with it an imperative to change what existed without envisioning the end of a system constructed around enduring dualities: schools for the rich and schools for the poor, schools for boys and schools for girls.³

Although the rhetoric of equality permeated the debates of the 1870s and 1880s, what the Republicans put in place essentially created a network of institutions for girls that juxtaposed those of boys. And while there is no denying the significance of the laws that determined the creation of these new institutions – particularly the

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¹ Jules Ferry, « Discours de la salle Molière », 10 April 1870, in Robiquet (1893).

² Scholarship on Jules Ferry abounds. For a thorough examination of his work in the field of education as well as his positions as Minister of the Colonies, see Rudelle (1996).

³ Jean-Michel Chapoulie has recently argued for the ways a broader understanding of equality in education emerged in educational debates after 1900. See Jean-Michel (2010).

138 R. Rogers

public normal schools for girls and the lycées and *collèges de jeunes filles* – they unquestionably facilitated an understanding of 'equality in education' that allowed girls to attend different schools, follow different programs and receive different degrees from those of boys at the secondary level. This vision of 'equality in difference' was, of course, widely shared by both men and women of this period, including within feminist circles.⁴

This essay begins with this Republican moment that defined for decades, and arguably for almost a century, the vision of gender equality that the educational system served to promote. By examining the discourses about girls' education specifically, I call attention along with a few contemporary feminist voices to the limits of this equality in institutional terms. Most feminists, however, failed to question these limits in part because of their concern to support the measures of a frequently contested Republican government. The second part of my essay moves to consider the interwar period when the feminist discourse about girls' education changed, focusing increasingly on measures that would introduce professional equality between male and female teachers but also equality of opportunity for girls through course programs and diplomas. Finally I will examine the very recent debate about the educational material baptized the 'ABCD de l'égalité' that addresses the issue of gender equality in the treatment of young children. The focus on these three moments offers a way to consider the historically contingent definition and usage of an abstract ideal, such as equality, within educational discourse as it applied to the relationship between the sexes. Ultimately I seek to understand why 'equality' in education carries such polemical weight in contemporary France, given the ostensible respect paid to the concept. The historical investigation of how this discourse about equality has changed, as well attention to who brandishes this discourse offers a way to understand this conundrum.

11.1 The Republican Moment: Debating the Ethos of Girls' Education

The artisans of the French Republican school system are familiar figures in contemporary France. Schools and streets through French cities bear the names of Jules Ferry, Camille Sée, Ferdinand Buisson and Paul Bert. All French pupils encounter during their schooling the name of Jules Ferry and his educational laws that introduced free, secular and obligatory primary education for boys and girls alike. While his legacy with respect to colonialism has recently been the object of both public and academic debate, his educational legacy remains largely unquestioned. Certainly historians recognize that the 'equality' he defended did not involve questioning the existence of a dual educational network, where a vast majority of the population attended a primary school and a privileged few pursued secondary

⁴ See, for example, Offen (2000), and Scott (1996).

studies. Nor did this equality mean that schooling opened the same opportunities for boys and girls. But, as Mona Ozouf has recently argued, Ferry defended a form of moral equality between men and women that justified a primary school program that was the same for boys and girls, with the same certificate that culminated these studies (although it should be noted these studies ideally took place in single sex schools with a schoolteacher of the same sex as the pupils). The only difference that existed in the law was the nature of manual work. Here, differing gender roles explained the need for different types of exercises: sewing for girls, gardening and woodwork for boys. Indeed, Ozouf has argued, the (unnamed) feminist scholars who criticize Ferry for institutionalizing gender stereotypes and gender inequality sadly miss the point through an anachronistic reading of his educational oeuvre.⁵

And yet, Ferry had feminist contemporaries who read the message of equality differently and who questioned an interpretation that subsumed women into their social role as wives and mothers. Hubertine Auclert, in particular, insisted that women were men's equals, deserving the same rights: "You do not owe obedience and submission to your husband...you are his equal in everything" (Hause 1987). While her political efforts were directed toward claiming women's right to citizenship, she did not neglect the issue of education. She argued that women could not count on men to provide them with equal opportunities in education:

Women must vote in order to be educated. Young girls will never have serious instruction, a scientific and rational instruction until women have the right to debate budgets, to introduce a pair of scales in the budget of public instruction, and to establish the principle of equality for all children in these scales, that is to say, the same number of schools, the same quantity of science for girls as well as for boys.⁶

This declaration, published a few months after the Camille Sée law had created a system of public secondary schools for girls, drew attention to the limits of this law. Girls were not given the same quantity of 'science' as boys. She denounced even more harshly the female diploma that girls earned at the end of their secondary studies. This diploma did not open the same doors as the baccalaureate and was worthless in her opinion. For Auclert "An identical teaching for women and men, with the same ideas and the same knowledge, should result in an identical diploma". Auclert's vision of an equal secondary education for girls and boys was only enacted some three decades later in 1924 when girls were finally allowed to study the subjects allowing them to pass the baccalaureate within female *collèges* and *lycées*.

Indeed, the republican legislators and their allies within the educational administration shared a vision of girls' education based on the conviction that women played a different role in society, thus legitimating the emergence of schools for girls that were in fact quite different. This was especially the case in the secondary

⁵ See Ozouf (2014), especially pp. 62–66.

⁶ Auclert, La Citoyenne, 10 April 1881, 1.

⁷ Auclert, La Citoyenne, 24 April 1881, cited in Taïeb (1982).

⁸ For the details of this struggle, see Mayeur (1977) and Offen (1983).

schools directed toward a middle-class clientele as can be seen in Ferdinand Buisson's monument to republican pedagogy, the *Dictionnaire de pédagogie*, first published in the 1880s and then reedited in 1911. For the authors of this dictionary who wrote about girls' education, 'difference' as an organizational principal was a given, and this extended to the idea that girls and boys should be educated in different, single-sex schools. As Danielle Tucat has recently argued, there is very little evidence in the thousands of pages of this dictionary of a more egalitarian vision of girls' education (Tucat 2006). For republican pedagogues writing about girls, 'equality in education' in the late nineteenth and early twentieth century essentially meant wresting girls from the Church, not opening doors for equal opportunities in the school room, and even less envisioning equal access to the workplace.

11.2 Questioning Equality in Girls' Secondary Education: In the Interwar Period

The ability to envision offering the same education to middle-class girls and boys emerged gradually in the interwar period in the context of expanding opportunities of skilled work for women, debates about the necessity to reconsider the social parameters of boys' secondary education, and women's increasing presence within French universities. While historians of women have tended to emphasize French women's failure to win the right to vote after World War I, and highlighted the fragmented nature of the French feminist movement in the postwar period, these years were important for those who defended women's right to an education that would allow them access to higher education or to jobs like those of their middle-class brothers. By exploring more carefully the discourses about the relationship between girls' education and women's work, I emphasize the changing understanding of what 'equality in education' might offer to women. More specifically, I'm interested in charting how debates about women's access to the baccalaureate in public secondary schools led to concern about how an egalitarian educational program would undermine gender identities.

A few highly educated women engaged actively in the debates about the characteristics of girls' secondary education, the certification students should receive, and the careers such studies should open to women. The absence of consensus about whether female programs should be identical to those of male programs, to whether the baccalaureate constituted the primary goal for girls, or about the gendered characteristics of the teaching profession reveal the difficulties contemporaries had determining what constituted an egalitarian orientation in secondary education. Of course secondary education was not egalitarian in this period; it remained accessible only to the privileged few. Still criticisms about the elite nature of the system accentuated during this period, and so it's not surprising that feminists added their criticism of gender inequalities to the voices of those who denounced the social inequalities.

Female secondary school teachers don't have a reputation in France for their combativeness and studies of the interwar period have tended to focus on the Groupes féministes laïques who published a newsletter and campaigned to promote coeducation in primary schools and sexual education for boys and girls. In contrast, the Société des Agrégées, which was created in 1920, essentially defended their own position as working 'intellectual' women, campaigning for equal pay and equal access to the same professional certification as men. In 1921, they refused to become members of the Conseil National des Femmes Françaises (CNFF) as well as of the Ligue pour les droits de la femme, although by the end of the decade they decided to join the former, considering this represented a sign of 'female solidarity' (Verneuil 2005). Less studied by historians, the Association Française des Femmes Diplômés de l'Université used its international networks to lobby for greater equality for women within the intellectual professions. It is striking, however, when surveying the debates of this period, to see how thoroughly gender inequalities continued to structure the discourse about secondary education.

As early as 1903 the newly constituted CNFF had sought to make the baccalaureate available for women within the public secondary system. Women managed to pass the baccalaureate while studying at home or in private institutions, but at the beginning of the twentieth century, the *lycées* and *collèges de jeunes filles* continued to offer an educational program that was shorter than that of boys, lacking in the classical humanities and philosophy, with a final diploma that did not allow women to pursue studies at the university (the *diplôme de fin d'études secondaires*). As the feminist movement organized in these years this difference was increasingly the object of protest. ¹²

The war opened new opportunities for women in the teaching profession as male teachers left for the front (Chanet 2007). But more importantly these years witnessed a large-scale debate among teachers, administrators, and parent-teacher associations about the necessary reform of girls' education that built upon pre-war discussions about the need to prepare young women for the baccalaureate. ¹³ Unlike previous discussions where decisions were made within the *Conseil Supérieur de l'Instruction publique*, the government appointed an extra-parliamentary commission, which included six women educators, to investigate girls' secondary education and suggest reforms. The commission decided to consult widely on this issue, following the method first adopted at the end of the century when the baccalaureate underwent an important reform. By thus opening the debate, the government

⁹ Sohn (1971, 1977). An unpublished dissertation does, however, look at women secondary schoolteachers, see Efthymiou (2002).

¹⁰ This association was first founded in 1920 as the Société nationale féminine de rapprochement universitaire. It took the name Association des Femmes Diplômées de l'Université (AFDU) in 1922. Dominated in these early years by female schoolteachers, it represented the French branch of the International Federation of University Women, founded in 1919. Fouché (2000).

¹¹ Offen, "The second sex," p. 272.

¹² See Offen, "The second sex," p. 276.

¹³ See Mayeur, L'enseignement secondaire des jeunes filles, pp. 398–410.

142 R. Rogers

implicitly recognized a coming-of-age of girls' secondary education, which deserved serious consideration. The debates revealed very different opinions about what secondary girls' education should strive to achieve in relationship to boys' education. While the final report of 1919 recommended maintaining the distinctly feminine character of girls' secondary schools, as well as the feminine diplôme de fin d'études secondaires, some members defended the creation of a feminine baccalaureate, which would allow girls to pursue university studies. Most of the female commission members energetically refused the creation of such a baccalaureate fearing it would serve to reinforce the idea that girls' diplomas were both different and inferior to those of boys. For the most radical women educators, equality in education meant girls should have the opportunity to study for and pass the same baccalaureate as the one boys passed.

The commission's report resulted in an outpouring of articles in the pedagogical and more general press between 1919 and 1920 that reveal the extent to which gender equality in education was becoming an issue that extended beyond a feminist minority. In fact, families and associations representing families wanted their daughters to be able to pass the (male) baccalaureate and envision liberal careers. Commission member Adrien Veber, for example, introduced a plea for 'equal education' in the Chamber of Deputies, urging his fellow deputies to support a reform that involved lengthening the girls' program of study and adding the subjects required to prepare for the baccalaureate. Proponents of this reform referred to this process as one of 'assimilation' of girls' and boys' secondary programs (but which represented in reality a 'masculinization' of the female program). ¹⁴ This viewpoint was also that of the CNFF who had high hopes at the end of the war that women were on the verge of gaining the vote. At a Congress in Strasbourg in October 1919, the issue of a feminine baccalaureate, distinct from the one that existed, was once again a subject of debate. Congress members mostly concurred that such a creation would in reality be a retrograde decision. ¹⁵

In the end Julie Siegfried, President of the CNFF between 1912 and 1922 and one of the participants in the inter-parliamentary commission, issued a resolution in support of 'equality before the baccalaureate'. The prominent feminist Avril de Sainte-Croix argued at this Congress in Strasbourg that "young women have the right to the same culture as that of boys." She pursued by noting, however, that it would be premature to push for coeducation. Hence equality resided in the content of girls' students not in an effort to place boys and girls together in front of the same teachers, teaching the same programs. For Jeanne Crouzet-Benaben access to the same programs and the same diploma were necessary conditions for post-war gender relations: "Everyone agrees that it is necessary to mount an energetic

¹⁴ Offen, "The second sex," p. 279. See Jeanne Crouzet-Benaben's description of this effort, which she supported wholeheartedly in the *Revue Universitaire* [hereafter RU], 1919, I; 183–86; 379–80; 11, 59–61.

¹⁵ Offen, "The second sex," p. 280.

campaign so that the culture given to both boys and girls be equal. In essence equality for both sexes before the baccalaureate should exist". ¹⁶

In 1924 the Minister of Public Instruction Bérard cautiously opened the way for this vision of equal education. Rather than introducing a law, which would have involved parliamentary debate, he passed a decree opening a track within girls' secondary schools that allowed them to prepare for the baccalaureate. The female diplôme de fin d'études secondaires remained in place to assuage conservative opinion. Within a few short years, this diploma withered away as students and their families voted for 'equality' and a degree that kept options opened. The number of girls who passed the baccalaureate increased rapidly, as did their numbers in the university opening another series of debates about women in the professions. ¹⁹

Four years after the Bérard decree, in 1928, Jeanne Crouzet-Benaben instigated a survey among male and female secondary schoolteachers to judge their reactions to what was described as "the identification of masculine and feminine [secondary] programs."²⁰ Not surprisingly, given the debates of the previous decade, the responses showed that families and teachers remained very divided about this measure. The teachers who responded noted for the most part that families supported the new organization because it allowed their daughters to pass the prestigious baccalaureate degree. The survey was more focused however on the gendered effects of the measure, asking teachers "Have young women progressed intellectually and morally from receiving the same instruction as boys? In what disciplines does such progress exist and how is it evident."²¹ Associated with this question were others asking whether girls had lost out from the change; teacher were asked to describe what they regretted no longer teaching from the female programs. Finally the survey asked whether the 'identification' of programs precluded teaching in a 'feminine spirit' the same subjects taught to boys. Might there be ways of choosing subjects and texts that would allow female education to preserve its initial character?

The nuanced answers of the respondents often came from the female teachers, who had attended schools where they had followed the programs designed for girls.

¹⁶ "Tout le monde se trouve d'accord pour admettre qu'il faut mener une campagne énergique pour que la culture donnée aux filles et aux jeunes gens soit égale. En somme, l'égalité de tout et de toutes devant le baccalauréat." Jeanne Crouzet-Benaben published articles on girls' educational and professional opportunities in the "Bulletin de l'enseignement secondaire des jeunes filles" that appeared four times a year in the *Revue Universitaire* from 1909 until 1938. She signed her name Crouzet Ben-Aben, but her name was in fact Benaben. See RU, 1919, 2, 370–371.

¹⁷ In the same year, all of the masculine competitive exams, the agrégation, were also opened to women. In 1928 female secondary schoolteachers won the battle for equal salaries with men and in 1932 that of teaching the same number of hours as men. See Chervel (1992).

¹⁸ See Perin (2007). RU 71, April 1924, résultats d'enquête.

¹⁹ For the figures, see Perin, *Le Bulletin*, p. 234.

²⁰ RU, 1928, p. 300.

²¹ *Ibid.*, p. 305.

144 R. Rogers

Many entertained regrets about the loss of a general culture and of courses in morals and psychology. Most, however, considered it possible to imprint a feminine character on a 'male' program; this was, "a question of psychology and *doigté* (skill), wrote Mlle Dugard". Mlle Courtin, a science teacher at the Parisian Lycée Molière was among those who wholeheartedly approved the adoption of a masculine science program: "As for the way of teaching, this issue does not exist in the sciences where it is impossible to imagine teaching mathematics, physical or the natural sciences differently according to the sex." This gender- neutral vision was not, however, universally shared. ²⁵

The most hostile reactions came from M.J Maillon, a male foreign language teacher and president of the Amicale mixte for the lycée de Toulon, who described the reform as "absurd." In his view girls clearly suffered intellectually, morally and physically from the new measures which copied the force-feeding and encyclopedic nature of boys' education. But while boys were able to resist this treatment thanks to their "joyous animality, their taste for sports, the thickness of their muscles, their capacity NOT to pay attention and their general inertia", girls suffered precisely because they were good students: "more attentive, more docile, more diligent", they languished under this inhuman "bachotage" and wear themselves out absorbing programs "that for girls' souls were like feeding a Creole stomach the food designed for Eskimos." This remarkable argument that associated racial and gender differences to condemn the equality of education between boys and girls suggests the extent to which this equality threatened gender identities.

Another issue that preoccupied secondary schoolteachers during this period was that of coeducation, as increasingly families in small communities petitioned the government to allow their daughters to attend the neighboring boys' *collège*, when no girls *collège* existed.²⁸ Only a minority of secondary schools during this period were affected by this practice, but discussions in pedagogical journals reveal that for many female secondary schoolteachers a commitment to teaching girls and boys

²² Hélène Guénot who was the secretary general for the *Revue de l'enseignement secondaire* was among the women teachers who feared that the assimilation of the male and female programs would lead to a form of masculine feminism. See her "Féminisme et éducation féministe," *Le Temps*, 25 sept. 1925.

²³ RU, 1928, p. 309.

²⁴ "Quant à la manière d'enseignement, elle ne se pose pas en sciences où l'on ne peut concevoir de differences dans la façon de presenter les mathématiques, des sciences physiques ou naturelles à des jeunes filles ou à des jeunes garcons" *Ibid.*, p. 308.

²⁵ The debates about career orientation in these years reveal the degree to which access to the same course programs and degrees did not translate into a vision of equal opportunity within the workplace, particularly for women with university degrees. See Rennes (2007); Charron (2014). For a study of educated women's struggle for professional equality, see Clark (2000).

²⁶ *Ibid.*, p. 301.

²⁷ Ibid.

²⁸ See Rogers, « La mixité », 173–179 as well as the associated documents in Jacquet-Francillon, Renaud-d'Enfert and Loeffel (2010).

the same subjects did not extend to the idea that they learn within the same classroom. Jeanne Petitcol in particular published several articles on the subject of coeducation, highlighting the pedagogical problems this practice generated. Given the difference in temperament between boys and girls, she feared girls would be relegated to the sidelines rather than rising to the intellectual challenges of a mixed sex classroom. Furthermore, she argued, all sorts of moral problems would inevitably arise. Other women teachers, notably within the Société des Agrégées, were less apt to essentialize sex characteristics but nonetheless argued against coeducation, for fear that men would be appointed to direct coeducational schools, thus pushing women from positions as directors (a concern that ultimately proved well-founded).

A year after Jeanne Crouzet-Benaben's 1928 survey on the 'identification' of male and female secondary school programs, women secondary teachers won the right to receive equal wages for equal qualifications and increasingly the debates about girls' secondary focused less on its content than on what it prepared girls to do. Despite the 'victories' that allowed girls to prepare the baccalaureate in public secondary schools, or the achievement of equal wages for qualified female secondary school teachers, most of the actors in these struggles remained profoundly convinced that differences between men and women, whether biologically or socially determined, justified differences in programs, in pedagogy and in the organization of secondary education.

As Mary Louise Roberts has argued, gender was central in the cultural debates of post-war France, and education was an arena where such debates were particularly rife. Secondary school teachers in particular were not inclined to defend positions that might suggest the emergence of a 'civilization without sexes'. On the contrary, the new opportunities for educated professional women were presented in ways that highlighted the complementary attributes of men and women. While most women teachers would have challenged those who argued that the identification of secondary programs would lead toward effeminate boys and masculine girls, few contested the idea that it was best for girls and boys to study in a single-sex environment. For most, equality in education could be achieved without coeducation.

11.3 Gender Equality in a Coeducational System: Hopes, Doubts and Contestation

In the post-war period, coeducation nonetheless progressed little by little within secondary schools, as an emerging adolescent youth culture increasingly led boys and girls to spend time with each other.³¹ The spread of coeducation, however,

²⁹ Petitcol (1925). Yves Verneuil, in particular has studied these debates in the interwar period.

³⁰Roberts (1994). See Verneuil's (2014) analysis of the debates concerning coeducation in primary education.

³¹ See, for example, Downs (2002), Bantigny (2007), and Prost (2004).

146 R. Rogers

generated less attention among contemporaries than the process of democratization within the secondary system. As a result, scholars have followed the lead of contemporaries devoting their attention to the effects of the emergence of a common secondary program where rich and poor followed the same programs, while ignoring the fact that boys and girls now followed the same programs on the same school benches (Rogers 2004). The feminist movement that reemerged in the late 1960s and early 1970s also paid little heed to the question of coeducation, focusing instead on women's right to control their bodies.

In educational circles the vociferous debates of this period focused on issues of social equality, resulting in the passage of the Haby law in 1975 that established the 'collège unique'. Far less commented upon, this same law required that all public schools from elementary level to high school admit both boys and girls. For most observers gender equality appeared finally to have been achieved within the schools. A symbol of this achievement was the government's decision to open the prestigious École Polytechnique to women candidates in 1972. Anne Chopinet, one of seven women who succeeded the competitive entrance exam in that year, entered at the top of her class. For most pedagogues in France, sex equality was seen to have been achieved.

As a result, attention to gender differences in schooling was virtually absent from public attention from the mid 1970s until the early 1990s, contrary to the situation in Britain, the United States or Germany where feminist scholarship took the place of the feminist movement and examined the results of reform initiatives that had progressively allowed girls to follow the same studies, attend the same schools and envision the same careers as boys (Rogers 2003). Studies of the history of coeducation appeared in all of these countries and the insights of sociologists and psychologists increasingly drew attention to the limits of coeducation in terms of promoting gender equality in either the workplace or the home. At the same time, scholars also acknowledged what coeducation revealed: girls did better than boys in the school-room but then chose orientations and careers that did little to change an established gender hierarchy in society. Equality of opportunity in school wasn't enough.

In France, the newly elected socialist government passed a decree on 22 July 1982 stating that coeducation was intended to create equality between the sexes (assurer la pleine égalité des chances), but this of course did nothing to change pedagogical practices and familial strategies that often unconsciously contributed to the perpetuation of gender inequalities within the working world. Recognition of this state of affairs only developed slowly within the academic community despite a few pioneering studies among scholars in education and sociology that highlighted the paradox of girls' superior achievements in school and their difficulty transforming this school capital into economic capital.³² Historians, however,

³² Mosconi (1989), Duru Bellat (1990), and Baudelot & Establet (1992). For a succinct presentation of this scholarship, see Marry and Schweitzer (2005). *Les frontières de l'inégalité*, See the recent issue "La mixité scolaire : une thématique (encore) d'actualité ?" of the *Revue française de pédagogie* 171/2 (2010).

were very slow to enter this debate and even slower to study what the implementation of coeducation meant within classrooms, how it affected professional teaching practices and the ways it influenced students' academic trajectories. As a result, the ostensible equality of the coeducational classroom remained very much a 'black box' for scholars interested in how the school system fashions gender relations over time. Although I count myself among the few historians who have worked on the history of coeducation, my own work tends to end the story in 1975 with the generalization of coeducation.³³ The heated debates in 2013–2014 about the promotion of gender equality within the schoolroom brings attention to the ways this issue remains problematic, unquestioned, and understudied. In the land of *liberté*, é galité, fraternité, the male of fraternity continues to trump the female in equality.

11.3.1 The ABCD de l'égalité

In 2013 the Minister of Education Vincent Peillon and the Minister for the Promotion of the Rights of Women Najat Vallaud-Belkacem put in place an experimental program to promote gender equality and non-discriminatory attitudes in pre-school and elementary schools. This involved encouraging schoolteachers to use a set of reading and pedagogical materials baptized the 'ABCD de l'égalité.' Children read or were told stories about families where men and women shared domestic tasks, where men cooked and women worked, and where children encountered families with parents of the same sex. The idea behind this initiative was that boys and girls should dream of futures unrestricted by the constraints of sexist or homophobic prejudice.

The program reflected the results of several decades of gender research in sociology and psychology. These studies showed that despite ostensible equality within the school system, girls and boys internalized very early gender stereotypes that encouraged girls to envision their future in relation to their role as mothers, much like their ancestors of the 1880s. The program directed teachers toward pedagogical materials that did not reinforce these stereotypes, as well as those that emphasized non-discriminatory values. In many ways this program represented the logical pursuit of objectives framed within a series of inter-ministerial accords passed and then prolonged since 2000, known as 'Conventions pour promouvoir l'égalité entre les filles et les garçons, les hommes et les femmes dans le système éducatif.' These conventions drew attention to persistent gender inequalities and encouraged a range of measures that would challenge gender stereotypes. No financial incentives however accompanied the proposed measures.

³³ In 2010 I published with my colleague Thébaud (2010/2014), a popular book, whose analysis ends in 1975. The recent debates about gender equality in the schoolroom bring home the need to pursue our analysis into the twenty-first century.

148 R. Rogers

The conventions, like the experimental program, no longer sought to change the organization of the school system through legislation, instead they shifted attention to the actors within the school system itself – teachers, administrators, career counselors – who were urged to spread the hope of a more egalitarian society in a discriminatory national economy, which 40 years of coeducation had done little to change. The program in effect recognized both the limits of equal opportunity legislation as well as that of the school system itself. The problem of equality was no longer embedded in the system, rather it was embedded in the minds of French men and women, and even more, some suggested, in the minds of the parents of immigrant or second generation immigrants, who hadn't grown up with the promise of egalitarian schools.

Strategically the government probably made a mistake using the term gender to legitimate the program. 35 While 'gender' had gradually entered French academia in the early 2000s, and existed within the discourse of the European union, the term itself was not widely known within French society. Still it packed a surprisingly subversive message, thanks to the efforts of the Vatican. In France, the more conservative branches of the Catholic Church latched onto what was described as an insidious 'theory of gender' that supposedly encouraged young children to question their sex identity, thus potentially adding to the crowds of homosexuals who had achieved the right to marry with the law of 17 May 2013 known as 'le marriage pour tous.' The ensuing controversy linked in the public eye the schoolbooks that encouraged non-stereotypical and non-discriminatory attitudes to the theory of gender and the end of the traditional family. This explosive combination, which brought hundreds of thousands of French men and women into the streets in the 'manif pour tous' as well as generating a movement by parents to refuse to send their children to school, led to the shelving of the ABCD de l'égalité and the decision to expunge all reference to the term 'gender' in the Ministry of Education's website.³⁶ In January 2015 a circular to promote equality between girls and boys in the schools carefully avoided any reference to gender in the measures proposed.³⁷

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³⁴ By 2000, it had become clear that despite the fact that women in France now entered the most prestigious science and engineering schools, they remained a very small percentage of such students. Within the world of big business, women also remained a minute percentage at the top, while throughout the working world, women continued to earn 25% less than men. Silvera (2014)

³⁵ See a soon to be published article in Italian by Michelle Zancarini-Fournel, "Les mouvements socio-politiques en France contre la 'théorie du genre.' Fondements, effets et ripostes." The French debates about gender in both academic and civil society are examined in Bereni and Trachman (2014).

³⁶ See Delaporte (2014).

³⁷ Bulletin officiel, circulaire n° 2015-003 du 22 janvier 2015.

One hundred and forty years after Jules Ferry's call for equality in education at the Salle Molière, the representation of equality had clearly changed although not its disruptive potential. Still the context was unquestionably different. How can one understand such massive uproar about 'the theory of gender' and the promotion of non-stereotypical messages to young children? Clearly, sex stereotypes were not at the heart of the uproar, rather the challenges to sex identity seen to lie in 'a theory of gender' that encouraged children to question the biological underpinnings of what constituted the masculine and the feminine. And although the rhetoric of the debate was simplistic, one cannot help but recognize that this vision of the potential of gender to disrupt categories of thought echoed the promise of such theoreticians as Joan W. Scott and Judith Butler.

For the feminist historian of education that I am, this controversy highlights, however, the very longue durée of the struggle to promote equality within the school system, as well as the changing valences of what equality represents within educational discourses. If in the 1880s it meant offering girls the same opportunities for a 'modern' education without the weight of religious messages, by the 1920s it carried a different message for those, like Crouzet-Benaben, who envisioned the same education, the same degrees and the same professional opportunities. The recent debates reveal, however, that gender equality remains a contested notion, one that the school system in particular manages with difficulty, despite a century of lip service to the cause. While the socialist government's capitulation to the street demonstrations was interpreted by most as yet another example of its' weakness (revealed in numerous other political or financial affairs), I would argue it reveals far deeper hesitations about what gender equality implies. Indeed, I do think one could argue, that despite the socialist left's brief endorsement of the term 'genre,' gender remains a profoundly non-French category of analysis within a universalist republican culture. Despite the existence of a vibrant feminist scholarship in France, where the concept of gender is used critically, within broader society what is non-French is also not useful.³⁸ The changes of discourse traced here reveal the importance of determining who carries these discourses, what meaning they attach to them, and the historical context within which they have been produced. And here we see the limits of what a critical and feminist reading of the history of education can accomplish in the interests of promoting what appears to be a foundational concept of French culture: equality.

References

Bantigny, L. (2007). Le plus bel âge? Jeunes et jeunesse en France de l'aube des Trente Glorieuses à la guerre d'Algérie. Paris: Fayard.

Baudelot, C., & Establet, R. (1992). Allez les filles! Paris: Le Seuil. 2nd ed. in 2006.

³⁸ I am alluding here to Scott's (1986) foundational article.

150 R. Rogers

Bereni, L., & Trachman, M. (2014). *Le genre, theories et controverses*. Paris: Presses universitaires de France, coll. La vie des idées.

- Chanet. (2007). Des institutrices pour les garçons. La féminisation de l'enseignement primaire en France, des années 1880 aux années 1920. *Histoire de l'éducation*, 115–116, 171–194.
- Charron, H. (2014). Les formes de l'illégitimité intellectuelle. Les femmes dans les sciences sociales françaises 1890–1940 (pp. 303–414). Paris: CNRS Éditions.
- Chervel, A. (1992). Histoire de l'agrégation. Contribution à l'histoire de la culture scolaire (pp. 193–199). Paris: INRP/Éditions Kimé.
- Clark, L. L. (2000). The rise of professional women in France. Gender and public administration since 1830. Cambridge: Cambridge University Press.
- Delaporte, L. (2014). Circulaires, manuels, livres: les ministères censurent le mot 'genre', 6 February 2014 on Mediapart www.mediapart.fr
- Downs, L. L. (2002). Childhood in the promised land: Working-class movements and the colonies de vacances in France, 1880–1960. Durham/London: Duke University Press.
- Duru Bellat, M. (1990). L'Ecole des filles. Quelle formation pour quels rôles sociaux? Paris: L'Haramattan.
- Efthymiou, L. N. (2002). *Identités d'enseignantes Identités de femmes. Les femmes professeurs dans l'enseignement secondaire public en France (1914–1939)*. Thèse de doctorat d'histoire, Université Paris 7.
- Fouché, N. (2000). « Des américaines protestantes à l'origine des 'university women' françaises ». Bulletin de la Société de l'histoire du protestantisme français, n° spécial dirigé par Gabrielle Cadier-Rey, « Femmes protestantes au XIXe et au XXe siècles », 146/1, 133–152.
- Hause, S. (1987). *Hubertine Auclert: The French suffragette* (p. 78). New Haven: Yale University Press
- Jacquet-Francillon, F., Renaud-d'Enfert, R., & Loeffel, L. (2010). Une histoire de l'école. Anthologie de l'éducation et de l'enseignement en France, XVIIIe-XXe siècle. Paris: Retz.
- Jean-Michel, C. (2010). L'Ecole d'Etat conquiert la France. Deux siècles de politique scolaire (pp. 278–281). Rennes: Presses universitaires de Rennes.
- Marry, C., & Schweitzer, S. (2005). Scolarités. In M. Maruani (Ed.), Femmes, genre et sociétés. L'état des savoirs (pp. 211–217). Paris: La Découverte.
- Mayeur, F. (1977). L'enseignement secondaire des jeunes filles sous la IIIe République. Paris: Presses de la Fondation Nationale des Sciences Politiques.
- Mosconi, N. (1989). La mixité dans l'enseignement secondaire: un faux-semblant? Paris: Presses universitaires de France.
- Offen, K. (1983). The Second Sex and the *Baccalauréat* in Republican France, 1880–1924. *French Historical Studies*, *3*((Fall 1983)), 252–286.
- Offen, K. (2000). European feminisms, 1700–1950: A political history. Stanford: Stanford University Press.
- Ozouf, M. (2014). Jules Ferry, la liberté et la tradition. Paris: Gallimard.
- Perin, E. (2007). Le Bulletin de l'enseignement secondaire des jeunes filles: La formation intellectuelle des femmes dans la France de l'entre-deux-guerres vue par Jeanne P. Crouzet Ben Aben, mémoire de master, Université Marc Bloch Strasbourg.
- Petitcol, J. (1925, Juin). Classes mixtes et coeducation. Revue Universitaire, n°6, 418–429.
- Prost, A. (2004). Histoire générale de l'enseignement et de l'éducation en France. Paris: Perrin [1st ed. 1981].
- Rennes, J. (2007). Le mérite et la nature. Une controverse républicaine: l'accès des femmes aux profession de prestige, 1880–1940 (pp. 455–503). Paris: Fayard.
- Roberts, M. L. (1994). Civilization without sexes. Reconstructing gender in postwar France, 1917–1927. Chicago: University of Chicago Press.
- Robiquet, P. (Ed.). (1893). *Jules Ferry, Discours et Opinions* (Vol. 1, pp. 283–305). Paris: A. Colin.
- Rogers, R. (2003). État des lieux de la mixité. Historiographies comparées en Europe. Clio. Histoire, Femmes et Société, 18, 177–202.

- Rogers, R. (2004). La mixité dans l'éducation. Enjeux passés et présents. Lyon: ENS Éditions.
- Rudelle, O. (1996). *Jules Ferry. La République des citoyens* (Vol. 2). Paris: Éditions Imprimerie Nationale.
- Scott, J. W. (1986). Gender: A useful category of historical analysis. American Historical Review, 91(5), 1053–1075.
- Scott, J. W. (1996). Only paradoxes to offer: French feminists and the rights of man. Cambridge: Harvard University Press.
- Silvera, R. (2014). Un quart en moins. Des femmes se battent pour en finir avec les inégalités de salaires. Paris: La Découverte.
- Sohn, A.-M. (1971). Féminismes et syndicalismes, Les institutrices de la Fédération Unitaire de l'Enseignement de 1919 à 1935. Thèse de 3° cycle, Univ Paris X-Nanterre.
- Sohn, A.-M. (1977). Exemplarité et limites de la participation féminine à la vie syndicale: les institutrices de la C.G.T.U. *Revue d'Histoire Moderne et Contemporaine*, 24, 391–414.
- Taïeb, E. (Ed.). (1982). La Citoyenne, articles de 1881 et 1891 (p. 60). Paris: Syros.
- Thébaud, F. (2010/2014). La fabrique des filles. L'éducation des filles de Jules Ferry à la pillule. Paris: Textuel.
- Tucat, D. (2006). L'autre dualité: l'éducation des filles. In D. Denis & P. Kahn (Eds.), L'Ecole de la Troisième République en questions. Débats et controverses dans le Dictionnaire de pédagogie de Ferdinand Buisson. Bern: Peter Lang.
- Verneuil, Y. (2005). Les agrégés. Histoire d'une exception française (p. 209). Paris: Belin.
- Verneuil, Y. (2014). Coéducation et mixité: La polémique sur la gémination des écoles publiques dans le premier tiers du 20e siècle. *Le Mouvement social*, 248/3, 47–69.

Chapter 12 The 'Crisis' Problem: On the Pervasiveness of Crisis Rhetoric in American Education Research

Ethan Hutt

In American education we have a crisis problem. By 'crisis problem' I am not referring to the 'outsized crisis' discussed in the Joel Klein, Michelle Rhee reform manifesto or to Arne Duncan's recent comments that American schools are in a 'real state of crisis' or his prior comments that the American education has a 'crisis [at] multiple levels' of the system. I am also not referring to the 'Dropout Crisis,' the 'Teacher Quality Crisis,' the 'Equal Opportunity Crisis,' the PISA informed, 'International Competitiveness Crisis' or the 'Crisis of Moral Authority' in our classrooms. Rather I am referring to the fact that whether you listen to reformers, politicians, or—and this is crucial—education researchers, every single part of our American education systems seems to be in some state of 'crisis.' Indeed, we have so many crises that one group of scholars has attempted to develop a typology of educational crises as a means providing more ready engagement with them (Birnbaum and Shushok 2001). When you have enough crises to spawn a typology, it is safe to say you have a crisis problem.

This pervasiveness of crisis has not gone unnoticed or unmentioned by scholars. The literature declaring crisis has more recently begot a symbiotic literature aimed at assessing the severity and legitimacy of variously named crises. Indicative of this genre is Berliner and Biddle's famous *The Manufactured Crisis* or their more recent offering 50 Lies and Myths That Threaten America's Schools, each arguing that the

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¹ Klein et al. (2010); Chuck (2013); John Meacham interview with Arne Duncan, PBS News, March 25, 2013; http://www.pbs.org/wnet/need-to-know/video/video-arne-duncan-on-american-education-we-have-a-crisis-on-multiple-levels/8230/

² McNeil et al. (2008); Patrick Murphy et al. "A National Crisis or Localized Problems? Getting Perspective on the Scope and Scale of the Teacher Shortage;" Darling-Hammond (2003); Duncan and Murnane (2014); Arum (2005).

public has been subjected to a deliberate campaign of misinformation about the quality and state of its schools (Berliner and Biddle 1995; Berliner and Glass 2014). Though many entrants in this genre opt for a less conspiratorial tone, they all tend to share a penchant for crisis substitution—debunking one crisis only to have another one ready at hand. Hence the subtitle of Berliner and Biddle's 50 Lies and Myths: 'The Real Crisis in Education'—a sentiment backed by other recent titles written, again I should stress, by academics. Titles such as: 'The Achievement Crisis is Real'; 'Canceling Diversity: High-Stakes teacher testing and the real crisis'; High-Stakes Testing and the Decline of Teaching and Learning: The Real Crisis in Education; or Letters to the President: What We Can Do about the Real Crisis in Education (Stedman 1996; Flippo 2003; Hursh 2008; Glickman 2004.. One need not have opinions on any of these particular crises to observe that the language of crisis has become a pervasive part of not just our political discourse on education but of our discourse on education research as well. Indeed, as all these titles suggest, talk of 'crisis' has become a key motif in the American discourse about reform and change in our schools.

Yet, amidst the considerable efforts spent discerning and anointing crises, decidedly less attention has been given to the effects of the crisis motif on education research. That is: how has this discourse of change, changed the way we think about and conduct educational research? What literature there is on the subject has tended to view crises as episodic rather than cumulative and have largely focused on the way in which it has shaped the formation of policy rather than the way that it has shaped the research done on education within and in response to these policies. This purely instrumental view of crises tends to focus only on the short-run effects of crisis rhetoric and only within a narrow domain. As I will argue in this paper, there are several additional dimensions that are worthy of our consideration.

The first is the need to consider the implications of our long-running state of crisis. By definition, 'a crisis' suggests a rare and acute problem that demands a swift and, perhaps, bold response. Far from an exceptional time, crises have become the normal state of American education discourse over the last half century and this has been the discourse in which education policy research has come of age. The second, is to observe that rather than serving as a potential brake on the use of crisis rhetoric in education policy, education researchers have accepted the crisis frame and used it to justify their own role in providing any number of—untested—educational solutions. In this respect, the idea of crisis during the last half-century has shaped not only the context in which education research has taken place but also the criteria by which it has been judged. The augmented risk calculation and action-bias justified by the extraordinary conditions and

³ See, for example, Mehta (2013) and Kirst and Walker (1971).

⁴ See, for example, Murray Edelman (1977).

⁵ Of course crisis rhetoric itself has been a feature of American rhetoric and the American political imagination since colonial times. The gap between the American ideal and reality of America has been a defining feature of the "American jeremiad". Bercovitch (2012).

compressed time frame of a crisis, have, in turn, shaped the way that we think about education research. Thus, crisis—as a discourse of change—has changed the discourse concerning educational research.

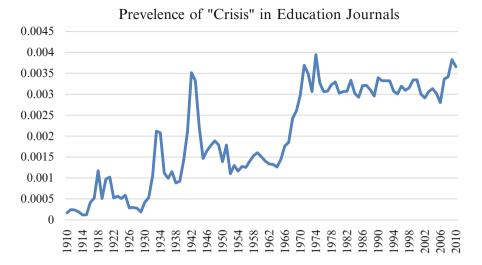
This chapter develops this argument in three parts. First, I will consider how the current ideas of crisis are distinct from the enduring sense—both in popular imagination and in contemporary scholarship—that American schools have always been a source of concern. Second, I will examine the historical factors that gave rise to this shift in discourse about American schools, arguing that the roots stem from changes in the 1960s not, as is commonly argued, with the publication of A Nation at Risk in 1983. Lastly, I will try to illustrate how this new sense of crisis has shaped several prominent lines of contemporary research. By tracing the origins of this contemporary phenomenon, I hope to shed light on the way in which the policy rhetoric of crisis—usually thought of as distinct sphere unto itself—bleeds into and shapes education research in important ways. Put simply, the persistent invocation of the 'education crisis' has constrained notions of what constitutes acceptable or 'useful' research not only to 'what works'—a dubious concept in its own right⁶ but to what might work right now. Thus the crisis itself has become an agent in educational research—shrinking the acceptable timeframe for research and shifting the most important outcomes of education from the future to the present.

12.1 Historical Crises

At the outset it must be acknowledged that the history of crisis and schools extends all the way back to the origins of schooling in America. Evidence of this long history is provided by the chart below which graphs the prevalence of the word 'crisis' in education articles in Jstor's database. But it is important to note that prior to the late-1960s crises were of a very different tone, character, and duration. Crises that schools faced were either social problems that were passed onto schools to solve or there were organizational crises of efficiency. In both cases the basic premise and capacity of schools remained unchallenged: it only makes sense to hand social problems to schools if one believes in the underlying power of schools; and arguing that schools could be organized more efficiently is not to challenge the underlying mechanisms of schooling only the way that they are structured.

⁶ For an excellent and wide-ranging critique—both in the sense of context and history—of the notion of 'what works' in educational research, see: Smeyers and Depaepe (2006).

⁷ These data, like those contained in Google's Ngram database should be taken with a grain of salt. The Jstor database does have the advantage of including only scholarly journals, which removes the possibility that the trends are the result of influence of popular press books that might be more prone to using crisis rhetoric. The Jstor database, in contrast to Google Books database, also allows us to conduct a search within a specific subset of the database—in this case, education journals.



As the central social institution in a country that stresses both limited government and individualism, schools have become a primary—if not the primary—vector of social policy since the passage of compulsory school laws in the late nineteenth century. Thus calls for change in society have often been routed through the nation's schools. Historically, the common political response to public outcry over various social problems has been to 'educationalize' them (Labaree 2008) whereupon the social problem has become memorialized in some manner of curricular reform be it Temperance Education, Driver's Ed, or Sex Ed (Zimmerman 1999; Levy 1990; Carter 2001). It is in light of this recurring pattern—a social problem is identified, the problem is given to schools, and formulated into a curriculum—that Michael Kirst and Derrick Walker made their observation in 1971 that when it comes to curriculum "crisis policy-making is normal and normal policy-making exceptional" (Kirst and Walker 1971, 498).

The important thing to note about this type of crisis is that it casts the school as the solution not the source of the problem to be solved. Depending on one's level of cynicism this can be seen as reflecting either the unyielding American faith in its public schools or a lack of commitment to solving the root of the problem. Even in the latter case, though, the fact that educationalizing a social problem is considered a politically acceptable response only underscores the public availability of the logic of schools as crisis solvers. Whatever the case, while this type of thinking does bring schools and crises into close proximity, these crises are distinct both in their stance toward schools—schools as solutions—and in their conception of the crises' duration—the introduction of a new program, curriculum, course requirement is publicly accepted as a solution to the problem. Just as importantly, education research has rarely been implicated in solving these types of problems. Indeed, in most cases these problems are seen as purely political and so the solution is rarely evaluated. This formulation accounts for Tyack and Cuban's observations that

historically, school reform in the United States is a function of policy cycles and largely additive—rarely touching, or wanting to touch, the core work of schools (Tyack and Cuban 1995).

The other sense in which scholars have historically noted an interaction between schools and crises is in recurring claims of the inefficiency of the school system itself. As these scholars have noted, education is a weak profession which is easily challenged by outsiders with more highly regarded and developed knowledge bases. Thus schools have been subjected to a wide range of 'rationalizing' efforts aimed at improving its organization and efficiency. These structural, systems-based critiques were the dominant form of both school criticisms and crises prior to the 1960s. Perhaps the most classic articulation of this view is Leonard Ayers's Laggards in Our Schools (1913). The problem for Ayers was not that schools are ineffectual but that the process of the schooling was too inefficient and disorganized. The solution, therefore, was to rationalize the process of schooling, so that it could have its intended effects: the creation of distinct schooling tracks, the extension of the compulsory schooling age (so students could receive more schooling), and more rigorous accounting systems.

Likewise the overriding concern for reformers and education scholars throughout the 1920–1940s was to optimize the organization of schools and 'tinker' with the existing system accordingly. Hence the overwhelming focus on the collection and dissemination of descriptive statistics in the Bureau of Education annual reports and the widespread development and use of school physical plant surveys as a focus of scholarly interest and reform (Steffes 2012). These surveys that focused largely on numerical counts—library books, course offerings, classrooms, etc—were reinforced and given government backing by new state accreditation requirements for schools. ¹¹

This focus on institutional and organizational forms continued after World War II as well. Following the launch of *Sputnik*, James Bryant Conant, one-time President of Harvard University and veteran of the Manhattan Project, spent 2 years traveling the country to examine the nation's schools and published his observations in *The American School Today*. "I can sum up my conclusions in a few sentences," Conant wrote "The number of small high schools must be drastically reduced through district reorganization. Aside from this important change I believe no radical alternation in the basic pattern of American education is necessary in order to improve our public schools" (Conant 1959, 40). The problem, according to Conant, was the decentralized organization of schools when what was needed was the comprehensive high school that could both serve the needs of all students and could benefit from larger economies of scale. The power of schooling was not at issue only the wisdom of its organization.

⁸ Mehta, Allure of Order; Labaree (2012); Callahan (1964).

⁹ See, for example, Lagemanm (2002); Labaree (2004).

¹⁰ See, for example, Callahan (1964); Tyack (1974); Mehta, Allure of Order.

¹¹ VanOverbeke (2008); Steffes, School, Society, State, 43–44, 88–90.

The point here is both to acknowledge that the notion of education crisis is not a new one and to provide a point of comparison with later changes. In the examples above, either society was in crisis and more schooling was the answer, or school organization was the problem so better organization was the solution—leaving the core belief in the power and general content of schooling untouched.

12.2 Crisis in a Changed World

In trying to understand both why crisis logic gets invoked in the context of education and why it has moved from an episodic occurrence to an endless state, we must consider how these older forms of crisis, which are essentially structural in nature—interacted with historical developments in the 1970s. I would argue there were three primary changes which had the effect of both amplifying our sense of education crisis and providing a new responsibility for educational research.

The first was a marked shift in the way Americans thought about their schools. While American schools have always suffered from a chronic condition of reform, the underlying faith in schools had never been challenged as fundamentally as it was in the aftermath of desegregation efforts. The hope that the desegregation of American schools would lead to equal opportunity, dashed by the publication of the Coleman Report in 1966, presented a radical challenge to traditional notions of the institutional capacity of schools. The severity of this challenge reverberated in opinion polls throughout the next decade: during the 1970s the percentage of parents giving their *local* schools an A grade was cut in half while the number of parents giving their schools a D grade doubled. By 1981, a full 2 years before the publication of *A Nation at Risk*, more than half of American parents, when asked about the quality of their local school, gave a grade of C or worse (Elam 1984).

A decline of this magnitude suggests that it was not just those die-hard believers of integration that were disillusioned but a population incorporating a much larger swath of the American public. This is crucial because it suggests that the challenges posed to schools in the late 1960s and early 1970s raised questions about whether those in the middle and upper classes could continue to rely on schools as a legitimate means of advancement. If, as Coleman suggested, schools could do little to change the opportunities of minority and lower class students, then the claim that schools were meritocratic institutions were seriously in doubt. Given the centrality of schools to American social theories of individual responsibility and mobility, the events of this period demanded and enabled a far reaching critique of schools and their failures—if only in the name of preserving the system for those at the top. ¹²

¹² In this view, the move from school desegregation to student based accountability in the form of exit examinations and minimum competency testing makes perfect sense. Student accountability policies redirected the questions of inadequacy from the school system to the student. A version of this argument can be found in, Baker et al. (2014).

At least part of the ensuing critique was directed at the pace of change the system was capable of as the multi-decade failure of desegregation raised question for lawmakers and scholars about the potential pace of reform. The 'all deliberate speed' of the *Brown* decision, at first hailed by scholars as a pragmatic acknowledgment of the complexity and sensitivity of the issues involved, was soon spoken of only in tragic tones. ¹³ This concern for speed and pace of change marks the second major change in this period. At roughly the same time as Americans were losing their faith in schools, Americans also became convinced that the pace of change in the world was increasing faster than ever.

The events of the 1960s, as Daniel Rodgers argues in *Age of Fracture*, "challenged many of the assumptions of gradual, linear historical motion that had undergirded Cold War social science" (Rodgers 2011). In its place and consistent with ascendant influence of economic modeling, "notions of compressed time were to be played out across registers on both the right and the left of culture and politics" (Rodgers 2011, 230). This changing sense of time had particular implications for American schools. In John F. Kennedy's 1963 Message on Education, he observed that "in the last 20 years, mankind has acquired more scientific information than in all previous history. Ninety percent of all the scientist that have ever lived are alive today." Given the stunning shift in the rate of change in the world—especially as it related to knowledge production—Kennedy argued "we can no longer afford the luxury of endless debate over all the complicated and sensitive questions raised by each new proposal on Federal participation in education. . We are at a point in history when we must face and resolve these problems" (Kennedy 1963).

These views were echoed by many in the educational establishment. In his 1966 Presidential Address at the annual American Education Research Association conference, Benjamin Bloom observed that "each new development of energy, power, and speed appears to bring about...more anxiety than existed before." The pace of change, the anxiety, and the increasing hope that education would deliver the nation from these challenges framed new challenges for education researchers.

In Bloom's view, the operative question had become whether "educational research is able to respond effectively to the new order of problems" in the world (Bloom 1966). Bloom had few doubts on this score provided the field could find "procedures for speeding up the communication process" among researchers which would allow for greater collaboration and coordination (Bloom 1966, 220). The same year of Bloom's presidential address, Assistant Secretary of Education, Francis Keppel, who served in the War Department during World War II and as Dean of the Harvard Graduate School of Education for 14 years, published *The Necessary Revolution in American Education*. For Keppel, the necessity of revolution arose from the pace of change now required from schools. "The wheels of American education are revolving so rapidly that whatever stability we had in the past is gone forever," Keppel wrote, "...stability [now] will include intellectual change" (Keppel 1966).

¹³ See, for example: Bell (1979) and Ogletree (2004).

These views convinced the federal government both of the need to invest in the production of graduate degree-wielding experts who could help the country manage the rapidity of change 14 and of the need to shift its efforts from slow, longer-term Cold War strategies like investing in the development of new science (Rudolph 2002) and math curricula (Phillips 2014) to more active forms of management. It was Keppel who, as Assistant Secretary of Education under Johnson, enlisted Ralph Tyler and the Carnegie Foundation in the creation of National Assessment of Educational Progress (NAEP)—without which the government could not monitor the rate of change in the education system or encourage competition among the states and districts for improvement (Hazlett 1974). This active form of management would place a new responsibility on educational researchers.

The belief in the need for more and better data in order to respond to the rapid change required of the education system, reflected a broader shift in the dominant paradigm for the study and management of complex systems like schools—the third major historical change. The shift was from a 'mechanistic' view of social systems that was the hallmark of the American War Department and early Cold War Era social planning 15 toward an 'organistic' view of social systems. This change was precipitated by the perceived limitations of the older view to account for the increasing complexity and interaction effects of the increasingly fast paced and interconnected world (Tröhler 2015). The epitome of this organistic view was 'evidence-based medicine,' with its focus on the isolation and statistical measurement of intervention effects and reflected in the new 1962 federal requirements that new drugs must demonstrate 'proof of efficacy' before they can be put on the market. One important upshot of this new view was a change in the expectations of the kind of control that could be exerted over complex systems. The hope that the problems of complex social systems could not be definitively solved in an Atomic Bomb engineering sense gave way to a more 'medicalized' view in which the system would be more (or less) effectively managed on the basis of information from key system indicators (Tröhler 2015, 5). The new expectation would be that scholars would need to provide timely responses to newly discovered problems.

The application of this new vision of education research was given prominent voice in Philip Coombs' *The World Education Crisis* (1968) in which Coombs explained in the Preface that education "has become so complex and is in so serious a state" that a new method was needed to look at the system "not piecemeal...but as a system, whose interacting parts produce their own 'indicators' as to whether the interaction is going well or badly" (Coombs 1968). Here Coombs connects both growing complexity and the current failures in the system to the need for new forms of research.

The influence of this organistic view of systems was consequential for the future education research because it framed the federal government's research and data collection interest in a particular way—on developing and linking variable

¹⁴ See for example Newman (1982) and Light (2003).

¹⁵ Light, Warfare to Welfare.

indicators, which could be manipulated to produce desired outcomes. Indeed, the creation of NAEP, the formation of the National Center for Education Statistics in 1965, the National Institute of Education (1972), and very first national longitudinal study of high schoolers (NLS)—conducted on the high school class of 1972—all reflected this new vision of systems management. In particular the National Longitudinal Study, a dataset which included more than 3500 variables, was intended to enlist researchers who could identify relationships among key variables and, in turn, provide 'timely information' for policy interventions. ¹⁶

The confluence of these three historical factors—a changed sense of time, a loss of faith in the capacity of schools, and a shift in the dominant view of systems—helps us understand how crisis moved from being an episodic phenomenon largely focused on structural factors located outside of the school, to a key rhetorical component of educational research. Education researchers were not the only ones to face these changing conditions, but education is an exceptionally applied field that does not allow those who study it to disengage from public policy debates and social crises in the way that scholars in other fields like sociology, political science, or economics were. ¹⁷ Eager to contribute to the debate and finally with an opportunity to affect policy but too weak to challenge the premise or augmented standards for success, education research increasingly spoke and embraced the language of crisis.

12.3 Research in a Time of Crisis

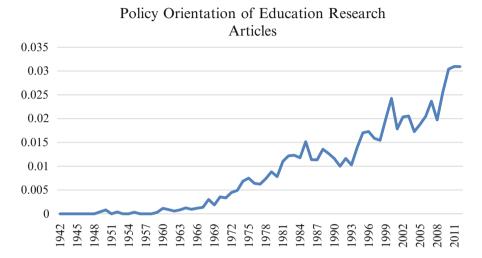
The diminished confidence that Americans had in their schools and sense of urgency to fix them, did not, however, change some basic features about the nature of educational research. Education research has always been soft and applied rather than hard and theoretical (Labaree 1998). Though these traits ensure that education researchers are destined to live with a 'lesser form of knowledge,' it also ensured that education researchers live with more accessible forms of knowledge as well. This fact had considerable implications for how education researchers responded to the changed climate of education policy and school perception. For the first time education research received considerable attention from policymakers and began to orient their research efforts accordingly. While education researchers had always been concerned with the transmission of research into practice, scholars had rarely been concerned with the relationship between *research and policy*.

Evidence of this shift can again be found in the Jstor database. A search of the entire Jstor corpus of articles published in education research journals reveals—as

¹⁶ See for example, Taylor (1981), which provides an overview of the mission of NLS and a review of the first decade's worth of research based on the NLS dataset.

¹⁷Regarding change in sociology see: Haney (2008); Political Science, see: Furner (2010); Economics, see: Rodgers (2011).

can be seen in the chart below—that during and prior to the 1960s, almost no articles contained any of the phrases 'policy implications,' 'improve policy,' or 'affect policy'—phrases that suggest some explicit consideration of education policy or contemplate some change in policy. ¹⁸ This changes, however, at the end of 1960s as the percentage of articles that contain any of these phrases increases dramatically—a trend that continues to the present.



This shift in orientation is underscored by the formation of a series of specialty research journals dealing expressly with issues of education policy, notably Educational Evaluation and Policy Analysis (EEPA) (1978) the flagship policy journal of the American Education Research Association. As the editorial statement in the inaugural issue of EEPA explained "During the last decade, two new educational specializations have received considerable attention, namely, educational evaluation and educational policy analysis." While noting that there had always been scholars concerned with evaluation, "as fields of disciplined inquiry, neither of these two specializations had previously received attention even mildly approximating the interest currently being showered on them (Popham 1978). The relative lack of previous concern to issues of evaluation makes sense in light of radically decentralized nature of American schooling in which financing, curriculum, and governance decisions were made at the local level. But given that education research and policy analysis would come of age in an era characterized by policy crisis, it is not surprising, then, that the field would be shaped by this initial framing.

¹⁸ As noted before, these data should be taken with a grain of salt. Though the ability to disentangle education specific discourses from shifts in other fields or from the general popular discourse is useful.

Another important aspect of education research that did not change was the general belief among education researchers that schooling was, at its core, a technical affair. American education is held together not by a national curriculum or a unified organization of funding or governance but by the view that there is an empirically grounded 'right way' to conduct schooling—a view extends all the way back to the Administrative Progressives' view of the 'One Best System'. ¹⁹ In many respects, the new sense of crisis was a boon to education researchers. This desire to find the 'right way' to do schooling now aligned with lawmakers' desire to actively manage—or at least attempt to wrangle—America's sprawling education system.

While a boon in some ways, doing education research in a time of crisis is constraining in others. Perhaps most importantly, the overwhelming financial support for research dollars—federal and foundation—will go to those who can either provide 'solutions' to known problems or to those who can fashion solutions to problems not vet realized—a dynamic encouraged by the decentralized structure of the American academy that emphasizes academic entrepreneurialism.²⁰ Equally important is that the solutions sought after and found are within control of policymakers or other key decision makers. Given the number of variables, contingencies, and interaction effects that are involved in the school system and in the process of teaching and learning this is an extremely tall order. Thankfully, the low esteem of American schools in the 1970s and since has ensured that the threshold for action remains consistently low. The questions that frame research are defined less by what works in some absolute sense and more by what makes—or has a chance to make—things better. This dynamic has characterized many areas of educational research over the last several decades. The research on school choice programs and value added models of teacher evaluation, however, provide two particularly compelling and high profile examples.

Though first contemplated as part of thought exercises conducted by Adam Smith and, later, Milton Freeman, the idea of implementing choice programs in actual American schools its first major step toward reality as a result of a study led by Christopher Jencks, funded by federal research dollars, in the late 1960s. Frustrated by the slow pace of desegregation and the capacity of schools to resist attempts to achieve equal opportunity, Jencks and his co-authors made the case for choice largely on the basis of the *potential* of the market to bring positive change, quickly. Having rehearsed the standard arguments attesting to the power of markets and their potential to fix a broken school system, the authors concede "None of this ensures that every child will get the education he needs, but," the authors note, "it does make such a result much more likely than at present". Recommending a solution because of the hypothetical odds of success would become an increasingly

¹⁹ Tyack, One Best System.

²⁰ John Meyer, for instance, has observed "a great many U.S. educational researchers function as potential advocates of educational crises of various sorts and as promulgators of solutions to them" Meyer (1986).

²¹ Jencks, 3.

common rhetorical feature of education scholars' arguments for the viability of their research solutions. The failure of desegregation and the plodding evolution of schools in the face of a rapidly changing world certainly made it worth a shot.

This was most prominently on display in one of the earliest books presenting research on choice models and making the case for reform: John Chubb and Terry Moe's 1990 book *Politics Markets and America's Schools* (Chubb and Moe 1990). Drawing on the popular motif that the schools were in crisis on account of the government monopoly on schooling, Chubb and Moe argued that choice was "a panacea," (Chubb and Moe 1990, 227) The basis for this claim was a series of regression models based on the longitudinal data contained in the Department of Education's 'High School and Beyond' dataset (HSB) associating the availability of school choice with student achievement. Despite the fact that their full model specification produced an $R^2 = 0.045$ —meaning the model could explain less than 5% of the student achievement variance in the dataset—their call to radically overhaul the American public education system was considered well within the realm of serious scholarly discourse given the accepted baseline state of crisis (Chubb and Moe 1990, 264–265). Indeed, Paul E. Peterson of Harvard University hailed the book's findings at the time as 'definitive' and, by decade's end, would warn that given that the "problems in American education are endemic," the "biggest danger is not immediate, wholesale transformation, but quite the opposite" (Peterson 1999). The proliferation of charters since *Politics Markets and America's* Schools and the literally thousands of studies since then has indicated that, contrary to these initial findings that choice is a panacea, the conclusion of the research is that some charter schools perform better, some perform the same, and others perform worse than traditional schools.²²

These findings have proved no problem for advocates of the reform—and the scholars whose studies indicate positive effects—because the school quality crisis that justified the initial introduction of choice continues to provide a basis for the policy (Henig 1995, chapter 2). It is no surprise, then, that the vast majority of charter schools operate in districts—mostly the inner city—whose schools perform poorly on state level measures of achievement. Time and again, scholars, and the public officials who cite their work, have fallen back on the arguments that charter schools perform "no worse than the status quo," or the more upbeat, "average performance of charter schools is approximately on par with that of [traditional public schools]" (Zimmer et al. 2009)—while at the same time promising to investigate why some charter schools perform better than others. Thus, the checkered pattern of success itself becomes a justification for more experimentation in

²² For instance, Eugenia Toma and Ron Zimmer conclude, "Some studies in some locations find charters outperform traditional public schools, some find they are no different than the traditional ones, and some find they perform worse." Toma and Zimmer (2012).

²³ See, for example: Belfield (2005).

the same vein.²⁴ In this respect, the radical decentralization of American educational governance with its considerable variation in funding, resources, and contexts virtually ensures that there will always be another potential covariate to justify the success or excuse the failure.

The point is not to adjudicate the debate on market based reform or to chastise a reform for not living up to its billing—few ever do—but rather to note the way in which the crisis framing continues to drive the research and discussion of the reform. For three decades the debate proceeds on the basis of the sorry state of the posed counter-factual: it might not be doing a lot of good, but it is no worse than we've got and in some cases it might be better.

A similar logic has also played out in efforts to improve teacher quality through the introduction of so-called 'value-added models' (VAMs) as a means of evaluating teachers. Like choice programs, this was an idea that originated with scholars who argued for its widespread adoption on the basis of the poor state of schools. The premise of these models is that researchers can isolate, statistically, a teacher's unique contribution to student learning. The teacher's contribution can then be compared to the student's improvement that would have been predicted based on the student's past performance and individual characteristics and to the contributions made by other teachers working with statistically similar students. In this way it is possible to rank order teachers base on their 'value-added' to student learning.

Though the statistical properties of these models are poorly understood and hotly contested, as of 2011, at least 24 states have implemented value-added models and their adoption has become a criteria for receiving waivers from many of the sanctions of the No Child Left Behind.²⁵ The impetus for adopting VAMs was itself the byproduct of a series of analyses that began with attempts to model education production functions and culminated with research findings that a group of low-performing teachers had a disproportionately negative effect on student learning outcomes.²⁶ Students assigned to consecutive years of low performing teachers are, scholars concluded, at an 'extreme' disadvantage compared to their peers.²⁷ This statistical harm has been the driving force behind the widespread adoption of these models despite their acknowledged flaws as scholars argue that the harm of inaction outweighs the known, if poorly understood, risks inherent in their adoption.

The dire state of the current system has become the counterfactual that allows for the relative distinction of these new models. Hence the common argument that the risk of the over-identification of ineffective teachers—that is, identifying more teachers as ineffective than actually are—is outweighed by the potential benefit

²⁴ Jim March observed that arguments in this vein are a distinctive trait of educational researchers. See: March (1975).

²⁵ See, for example, Papay (2011). National Council on Teacher Quality, 2011 State Teacher Policy Yearbook: National Summary 66 (2012).

²⁶ See, for example: Hanushek (1971) and Sanders and Rivers (1996).

²⁷ Sanders Cumulative and Residual Effects, 7.

of removing actually ineffective teachers with them. As one report put it, "the question, then, is not whether evaluations of teacher effectiveness based on value-added are perfect or close to it: they are not." Still, the authors conclude, "a system that generates a fairly high rate of false negatives could still produce better outcomes for students by raising the overall quality of the teacher workforce" (Glazerman et al. 2010). Given the state of schools and the importance of improving teacher quality, this is a trade-off that these researchers—and many others—are willing to endorse.

Other scholars frame the imperative to act on information provided by VAMs even more plainly. Thomas Kane, economist at the Harvard Graduate School of Education and Director of the Center for Education Policy Research, recently published a piece in which he argued that education researchers and policymakers have been thinking about the evidence provided by value-added models in the wrong way. At the beginning of the article, Kane asks the reader to imagine that he is having a heart-attack and, in the midst of this medical crisis, is presented by his ambulance driver with the option of being taken to two different hospitals. Though the hospitals' reported morality rates differ, neither difference is significantly different statistically from average. Having laid out the scenario, Kane poses the question: "would you be indifferent about which hospital you were delivered to?" 28

Not intending the question to be rhetorical, Kane proceeds to explain, citing a famous Herbert Simon article, that standard statistical hypothesis testing is inappropriate for 'many common decisions.' Unlike in some areas of science in which "it makes sense to assume that a medical procedure does not work...until the evidence is very strong that the original presumption (null hypothesis) is wrong," there are instances in which "decision-makers face an immediate choice between two options...where it would be infeasible to postpone a decision until more data are available, then the optimal decision rule would be to choice the one with better odds of success" even if not statistically significant.²⁹ Having conveyed the proper severity of the message and the proper course of action, Kane analogizes his hypothetical heart-attack patient scenario to the acceptance of value-added models in teacher tenure decisions. The take away of this thought exercise is clear: in a crisis—whether medical or education related—the standard statistical rules of social science evaluation do not apply; under these extraordinary circumstances 'statistical significance' should not restrain one's bias for decisive action.

This imperative for speed reached new heights recently when scholars at Harvard published the, non-peer reviewed, findings of their new study based on data from New York City on the impact of high and low value-added teachers in the *New York Times*. The study's findings, which have recently been called into question (Rothstein 2014), became the empirical basis for a key factual determination in the decision by a California judge to declare the state's tenure system

²⁸ Kane (2013); Kane was also a lead author on the Gates Foundation Funded "Measures of Effective Teaching" (MET) studies. See, for example: Kane (2013).

²⁹ Ibid.

unconstitutional.³⁰ The study's findings, according to the judge, 'shock the conscience'. In light of these findings and out of concern for the "negative impact on a significant number of California students, now and well into the future for as long as these teachers hold their positions," the judge believed the state's teacher tenure system should considered unconstitutional.³¹

Though school choice and value-added models are particularly prominent examples of the way that the narrative of crisis has come to influence educational research, they are hardly exceptions. In 2004, Russ Whitehurst, the first director of the newly created Institute for Education Sciences (IES), used the platform of his keynote address at the annual American Education Research Association conference to layout his new vision for the Institute. Drawing on a motif of war metaphors, Whitehurst criticized the yawning "gulf between the bench and the trench" in education research explaining that the "people on the front lines of education do not want research minutia or post-modern musings, or philosophy, or theory, or advocacy, or opinions from education research". Rather "people on the front lines want to turn to education researchers for a dispassionate reading of methodologically rigorous research that is relevant to the problems they have to solve."

What is notable about this statement is less the war imagery—an unfortunately all too common feature of American educational rhetoric—but the unusual clarity with which Whitehurst formulates the relationship between the wartime crisis engulfing American education, educational research, and the role of the educational researcher. In this view, the state of crisis defines both what constitutes appropriate topics of research—that is, research relevant to the problems in the trenches—and the proper role of education researcher. Both the questions asked and the counsel provided are defined by their relevance to solving of immediate problems. What is left out of this formulation, however, is any sense that there are questions that are bigger than those that can be used to inform action. It is perhaps not surprising then, that Whitehurst's comments were the preamble to the creation of the Department of Education's 'What Works Clearinghouse,' (WWC). As the name implies and its website confirms, the goal of WWC is to help 'decision makers' 'find what works' from among interventions grouped by intended outcome (improved reading skills), target population (dropout risks), or type of intervention (educational technology).

As several scholars have noted, this vision of 'what works,' which elevates supposed universal solutions deployable without reference to social context or history, highly is problematic and constrains the nuanced possibilities of science

³⁰ The opinion reads "Evidence has been elicited in this trial of the grossly ineffective teachers on students. The evidence is compelling. Indeed, it shocks the conscience. Based on a massive study by Dr. Chetty testified that a single year in a classroom with a grossly effective teacher costs students 1.4 million in lifetime earnings." *Vergara v. California* (2014), 8. It is worth noting that Tom Kane's work is also cited in the opinion.

³¹ *Ibid.* While it is true that the final ruling in this case may change on appeal, the general point about the influence of value-added models and the rush to present evidence of their effectiveness, I believe, stands regardless of the ultimate outcome of this case.

to a strictly managerial and administrative pose. ³² Even so, the WWC provides reports in no less than 48 different topic areas. Given breadth of areas covered by these reports, one might safely conclude that the trenches Whitehurst refers to mark nearly every facet of the American school system. Clearly sensitive to the notion that in education research nothing works or can meet the exacting 'scientific' standards set out by WWC, the WWC website provides a helpful FAQ in response to the prompt "The WWC never finds evidence of positive effects" by noting that at least 70% of its reviews find "potentially positive effects". ³³ The issue, in other words, is not a lack of research-informed ways for those in the trenches to take action, it is the overwhelming scope of the problem.

12.4 Conclusion

In this paper I have tried to argue that since the 1970s the logic of crisis—with its compressed time frame and demand for action—has become a defining feature not only of the political discourse of education but of educational research as well. This is understandable in some sense because schooling—like crisis—is a temporal phenomenon with a built in sense of urgency. Schools operating like running clocks with students ticking through the grades each year until they graduate. This demands that all reform and research be timely as missed opportunities are gone forever and the, negative, consequences are cumulative and compounding. As a judge explained in denying an attempt to enjoin Common Core implementation in Louisiana, when it comes to schooling "the loss of time is irreparable." There was no time for delay.

It is not just the nature of the institution, however, that affords this sense of urgency as crisis is, to put it crassly, good for the education research business. Foundations and governments are going to pay for research that promises solutions to problems. Longitudinal datasets and yearly tests scores have made us increasingly aware of how potentially consequential every interaction can be and provides the chance to find crises and small interventions—year round schooling, later school start times, growth mindsets—that could solve one problem or another. It is also functional in the sense that playing up the overwhelming sense of the problem lowers the expectations for success while also lowering the evidence and effect sizes necessary to recommend large scale change. Thus scholars can argue for the radical overhaul of the public system in favor of more choice on the basis of an R² of 0.045 or the overhaul of a teacher evaluation system with poorly understood statistical properties.

³² See, for example, Fendler (2006).

³³ Institute for Educational Statistics (2015).

³⁴ Navis Hill et al. v. Boby Jindal et al. (2014), Case No 632,170 (19th District Court, Louisiana).

But the rhetoric of crisis is also deeply dysfunctional in other ways. There is an inherent disconnect between the immediate temporal lotic of crisis and the long-term outcomes that we say we value in education—a problem that is exacerbated the more pervasive and long running the crisis becomes. As little as researchers understand the interventions that they advocate for, they understand even less their long run effects or their interaction effects with other quickly implemented reforms elsewhere in the system. This suggests the need for as much caution as cavalier—something our sense of crisis militates against.

In 1984 Charles Perrow introduced the phrase 'normal accidents' to draw attention to the fact accidents are an inevitable and unavoidable feature of highly complex, tightly coupled systems (Perrow 1984). Given the complexity of the system, the uncertainty of outcomes, and the growing appetite to monitor and actively manage every part of the system, it is time to introduce a similar phrase—normal crises, perhaps—into the parlance of education research. Though Perrow introduced his phrase in part to argue for our collective divestment from certain systems, that outcome seems unlikely when it comes to schooling. But perhaps talk of 'normal crises' would provide some more room and time to scholars to address the unique challenges of education because, unlike other forms of crises, education crises are not characterized by a steadily approaching deadline for action—the arrival of Soviet ships, the passage of the appropriations bill, the explosion of the nuclear reactor—but by an endlessly ticking clock in which the moment of action is always present. This is not to say that we need not deny that the clock is ticking but we need not make it agential either. In this way, perhaps, education researchers, who already live with a 'lesser form of knowledge,' can live with a lesser form of crisis too.

References

Arum, R. (2005). Judging school discipline: The crisis of moral authority in our classrooms. Cambridge: Harvard University Press.

Ayers, L. (1913). Laggards in our schools: A study of retardation and elimination in city school systems. New York: Survey Associates.

Baker, S., Myers, A., & Vasquez, B. (2014). Desegregation, accountability, and equality: North Carolina and the nation, 1971–2002. *Education Policy Analysis Archives*, 22(117), 1–30.

Belfield, C. R. (2005, November). *The evidence on education vouchers: An application to the Cleveland scholarship and tutoring program.* In Draft paper prepared for the conference on education and economic development, Cleveland, OH (pp. 17–18).

Bell, D. A., Jr. (1979). Brown v. Board of education and the interest-convergence dilemma. *Harvard Law Review*, 93, 518–533.

Bercovitch, S. (2012). The American jeremiad. Madison: University of Wisconsin Press.

Berliner, D., & Biddle, B. J. (1995). *The manufactured crisis: Myths, fraud, and the attack on America's public schools*. Redding: Addison-Wesley Publishing Co.

Berliner, D., & Glass, G. V. (Eds.). (2014). 50 myths and lies that threaten America's public schools: The real crisis in education. New York: Teachers College Press.

Birnbaum, R., & Shushok, F., Jr. (2001). The 'Crisis' crisis in higher education. In *In defense of American higher education* (pp. 59–84). Baltimore: Johns Hopkins University Press.

- Bloom, H. (1966). Twenty five years of educational research. *Educational Research Journal*, 3(3), 212.
- Callahan, R. E. (1964). *Education and the cult of efficiency*. Chicago: University of Chicago Press. Carter, J. B. (2001). Birds, bees, and venereal disease: Toward an intellectual history of sex education. *Journal of the History of Sexuality*, 10(2), 213–249.
- Chubb, J. E., & Moe, T. M. (1990). *Politics, markets, and America's schools*. Washington, DC: Brookings Institution.
- Chuck, E. (2013, October 8). U.S. in a 'real state of crisis' education secretary says. NBC News. http://www.nbcnews.com/news/other/us-real-state-crisis-education-secretary-says-f8C11354527
- Coombs, P. H. (1968). *The world educational crisis: A systems analysis*. New York: Oxford University Press.
- Conant, J. B. (1959). The American high school today: A first report to interested citizens. New York: McGraw-Hill.
- Darling-Hammond, L. (2003). Beyond the commission reports. The coming crisis in teaching. Santa Monica: The Rand Corporation, 1984. Education Policy Analysis Archives 11(23).
- Duncan, G., & Murnane, R. (2014). Restoring opportunity: The crisis of inequality and the challenge for American education. Cambridge: Harvard Education Press.
- Elam, S. (Ed.). (1984). The gallup polls of attitudes toward education, 1969–1984. Bloomington: Phi Delta Kappa.
- Fendler, L. (2006). Why generalizability is not generalizable. In P. Smeyers & M. Depaepe (Eds.), *Educational research: Why 'what works' doesn't work* (pp. 51–65). Dordrecht: Springer.
- Flippo, R. (2003). Canceling diversity: High-stakes teacher testing and the real crisis. *Multicultural Perspectives: An Official Journal of the National Association for Multicultural Education*, 5(4), 42–45.
- Furner, M. O. (2010). Advocacy and objectivity: A crisis in the professionalization of American political science, 1865–1905. New Brunswick: Transaction Publishers.
- Glazerman, S., et al. (2010). Evaluating teachers: The important role of value-added. Washington, DC: Brookings Institute.
- Glickman, C. D. (Ed.). (2004). Letters to the next president: What we can do about the real crisis in public education. New York: Teachers College Press.
- Haney, D. (2008). *The Americanization of social science: Intellectuals and public responsibility in the postwar United States*. Philadelphia: Temple University Press.
- Hanushek, E. (1971). Teacher characteristics and gains in student achievement: Estimation using micro data". American Economics Review, 6, 280–281.
- Hazlett, J. A. (1974). A history of the national assessment of educational progress, 1963–1973 a look at some conflicting ideas and issues in contemporary American education. Ed. D. diss, University of Kansas, 48.
- Henig, J. (1995). Rethinking school choice: Limits of the market metaphor. Princeton: University Press.
- Hursh, D. W. (2008). *High-stakes testing and the decline of teaching and learning: The real crisis in education*. Lanham: Rowman and Littlefield.
- Institute for Educational Statistics. What works clearing house, frequently asked questions. http://ies.ed.gov/ncee/wwc/document.aspx?sid=15&pid=2. Accessed Jan 27 2015.
- John Meacham interview with Arne Duncan. (2013, March 25). PBS News. http://www.pbs.org/wnet/need-to-know/video/video-arne-duncan-on-american-education-we-have-a-crisis-on-multiple-levels/8230/
- Kane, T. (2013). Presumed averageness: The mis-application of classical hypothesis testing in education. Washington, DC: Brookings Institute.
- Kane, T. J., McCaffrey, D. F., Miller, T., & Staiger, D. O. (2013). Have we identified effective teachers? Validating measures of effective teaching using random assignment. Research Paper. MET Project. Bill & Melinda Gates Foundation.

- Kennedy, J. H. (1963, January 29). Special message to the congress on education. Online by Gerhard Peters and John T. Woolley, *The American presidency project*. http://www.presidency.ucsb.edu/ws/?pid=9487
- Keppel, F. (1966). *The necessary revolution in American education* (pp. xiii–xiv). New York: Harper Row.
- Kirst, M. W., & Walker, D. F. (1971). An analysis of curriculum policy-making. Review of Educational Research, 41, 479–509.
- Klein, J., et al. (2010, October 10). How to fix our schools: A manifest by Joel Klein, Michelle Rhee and other education leaders. Washington Post. http://www.washingtonpost.com/wp-dyn/ content/article/2010/10/07/AR2010100705078.html
- Labaree, D. F. (1998). Educational researchers: Living with a lesser form of knowledge. *Educational Researcher*, 27(8), 4–12.
- Labaree, D. F. (2004). The trouble with ed schools. New Haven: Yale University Press.
- Labaree, D. (2008). The winning ways of a losing strategy: Educationalizing social problems in the United States. *Educational Theory*, 58(4), 447–460.
- Labaree, D. F. (2012). Someone has to fail: The zero sum game of schooling. Cambridge: Harvard University Press.
- Lagemanm, E. C. (2002). An elusive science: The troubling history of education research. Chicago: University of Chicago Press.
- Levy, D. (1990). Youth and traffic safety: The effects of driving age, experience, and education. *Accident Analysis & Prevention*, 22(4), 327–334.
- Light, J. S. (2003). From warfare to welfare: Defense intellectuals and urban problems in cold war America. Baltimore: Johns Hopkins University Press.
- March, J. G. (1975). Education and the pursuit of optimism. *Texas Tech Journal of Education*, 2 (1), 8.
- McNeil, L., et al. (2008). Avoidable losses: High-stakes accountability and the dropout crisis. *Education Policy Analysis Archives*, 16(3), 1–48.
- Mehta, J. (2013). The allure of order: High hopes, dashed expectations, and the troubled quest to remake American schooling. New York: Oxford University Press.
- Meyer, J. (1986). The politics of educational crises in the United States. In *Educational policies in crisis: Japanese and American perspectives* (p. 51). New York: Praeger.
- Murray Edelman, M. (1977). Political language (Vol. 14, pp. 44–46). New York: Academic.
- National Council on Teacher Quality. (2012). 2011 State teacher policy yearbook: National summary 66.
- Newman, F. (1982). The era of expertise: The growth, the spread, and ultimately the decline of the national commitment to the concept of the highly trained expert. Ph.D. dissertation, Stanford University.
- Ogletree, C. (2004). All deliberate speed: Reflections on the first half century of Brown v. Board of Education. New York: WW Norton & Company.
- Papay, J. (2011). Different tests, different answers the stability of teacher value-added estimates across outcome measures. *American Educational Research Journal*, 48(1), 163–193.
- Perrow, C. (1984). Normal accidents: Living with high risk systems. New York: Basic Books.
- Peterson, P. E. (1999). *Learning from school choice* (Vol. 1, p. 9). Washington, DC: Brookings Institute.
- Phillips, C. J. (2014). The new math and midcentury American politics. *Journal of American History*, 101(2), 454–479.
- Popham, W. J. (1978). Statement of EEPA editorial policy. Educational Evaluation and Policy Analysis, 1(1), 1.
- Rodgers, D. T. (2011). Age of fracture (p. 224). Cambridge: Harvard University Press.
- Rothstein, J. (2014, October). Revisiting the impacts of teachers (Working Paper October, 2014). http://eml.berkeley.edu/~jrothst/workingpapers/rothstein_cfr_oct2014.pdf
- Rudolph, J. L. (2002). Scientists in the classroom: The cold war reconstruction of American science education. New York: Palgrave.

Sanders, W. L., & Rivers, J. C. (1996). Cumulative and residual effects of teachers on future student academic achievement.

- Smeyers, P., & Depaepe, M. (Eds.). (2006). Educational research: Why "what works" doesn't. Dordrecht: Springer.
- Stedman, L. C. (1996). Respecting the evidence: The achievement crisis remains real. *Education Policy Analysis Archives*, 4(7), 1–29.
- Steffes, T. (2012). School, society, and state: A new education to govern modern America, 1890–1940 (pp. 36–44). Chicago: University of Chicago.
- Taylor, M. E. (1981). *National longitudinal study of the high school class of 1972 study reports update: Review and annotation*. Washington, DC: Department of Education.
- Toma, E., & Zimmer, R. (2012). Two decades of charter schools: Expectations, reality, and the future. *Economics of Education Review*, 31(2), 209–212.
- Tröhler, D. (2015). The medicalization of current educational research and its effects on education policy and school reforms. *Discourse: Studies in the Cultural Politics of Education*, 36(5), 749–764.
- Tyack, D. (1974). The one best system. Cambridge: Harvard University Press.
- Tyack, D. B., & Cuban, L. (1995). *Tinkering toward Utopia*. Cambridge: Harvard University Press.
- VanOverbeke, M. A. (2008). The Standardization of American Schooling: Linking Secondary and Higher Education, 1870–1910. New York: Palgrave Macmillan.
- Zimmer, R., Gill, B., Booker, K., Lavertu, S., Sass, T. R., & Witte, J. (2009). *Charter schools in eight states: Effects on achievement, attainment, integration, and competition* (Vol. 869). Santa Monica: Rand Corporation.
- Zimmerman, J. (1999). Distilling democracy: Alcohol education in America's public schools, 1880–1925. Lawrence: University Press of Kansas.

Chapter 13 "It's the language, stupid!" Colorblind and Tone-Deaf as Discourses of Change in Educational Research

Jeff Bale

This chapter sets two metaphors for change within educational research against each other. One is related to linguistic equity at school, specifically the policies and pedagogies that claim to foster equitable outcomes for speakers of minoritized languages. The other is related to racial equity, specifically the policies and pedagogies that claim to foster equitable outcomes for racialized students. In this latter area, the metaphor of *colorblindness* has served as a useful analytical tool. Scholars, especially those with commitments to critical race theory, have used this metaphor to define a conceptual spectrum bounded by race-neutral and race-conscious education policies. By plotting specific policies along this spectrum, scholars have historicized claims to colorblindness in an effort to better understand racial (in-)equity at and through school. In particular, they have highlighted the contradiction of contemporary education policies that are formally race-neutral and yet have had sharply negative consequences for racialized students.

This chapter extends that metaphor to introduce the notion of *tone-deafness*. Similar to colorblindness, tone-deafness foregrounds the question as to whether a given education policy is language-neutral or language-conscious. This chapter explores tone-deafness in two ways. First, and similar to colorblindness, the metaphor helps to historicize the development of language education policy, and to understand the sharp contradictions of contemporary education policies that are formally language-neutral and yet negatively affect speakers of minoritized languages. Second, and hewing closer to the focus of this conference, the chapter uses the notion of tone-deafness to analyze contemporary educational research on English language education.

The research addressed here focuses on the United States. Whether in the narrative itself or as footnotes, the chapter includes background discussion of this

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context for readers unfamiliar with it. However, the chapter references this work to exemplify broader discourses in the research, not to present an extensive review of it

13.1 Colorblindness and Educational Research

In his overview of legal scholarship on affirmative action, López (2007) argues that

Colorblindness as a ban against the use of race [in policy making] has no inherent political valence; instead, its emancipatory or repressive implications arise from the racial milieu generally and even more specifically in terms of the racial classifications to be prohibited. Colorblindness is merely a rule or a policy prescription; one must distinguish colorblindness as a means or as an end, for as a method it utterly lacks a transcendent moral quality, and instead takes on political and social significance only by virtue of its instant application. (p. 995)

This approach to understanding a given call for colorblindness in educational policy thus requires situating it in a specific historical context, namely who is making it, on whose behalf, and to what ends.

13.1.1 Historicizing Colorblindness

Within educational research, discussions of the term colorblind have identified two distinct eras in its history. The first has a discrete starting point, namely the *Plessy* v. Ferguson Supreme Court case in 1896 that established the separate-but-equal legal doctrine of Jim Crow segregation. Its end stretched out over a decade, marked by Supreme Court rulings (such as the 1954 Brown v. Board of Education case that outlawed school segregation and the 1967 Loving v. Virginia that overturned 'antimiscegenation' laws) and key federal legislation (such as the Civil Rights and Voting Rights Acts of 1964 and 1965, respectively). Within a legal, social, and political context of official segregation, calls for colorblind policies were designed to challenge formal, race-based discrimination. In fact, Homer Plessy's lawyer first introduced the term colorblind in his client's (ultimately unsuccessful) demand for desegregated public transportation (López 2007, p. 994, 26n). History would not memorialize this original source, but rather Justice John Marshall Harlan's usage in his dissent to the *Plessy* ruling: "Our constitution is colorblind, and neither knows nor tolerates classes among citizens" (cited in López 2007, p. 988). Nevertheless, the original intent was to challenge racial discrimination in formal social policy.

Once Jim Crow policies started to fall some 60 years later, however, civil rights activists argued that ending racism in U.S. society was not merely a matter of removing formally discriminatory laws, but rather of using policy to target racist structures. These demands for proactive, affirmative policies have since been called

race-conscious insofar as racial equity, and not merely formal equality, was an explicit goal. In this context, "the political register of colorblindness" (López 2007, p. 988) began to change. Not only did calls for colorblindness now emanate from those sectors of U.S. society most hostile to racial integration and equity. But also, white supremacists expanded their definition of the term to equate race-conscious policies with reverse racism (Omi and Winant 2014) or, more damning still, to view them as equivalent to Jim Crow segregation (López 2007). López (2007) summarizes this metamorphosis: "As the nation's racial commitments swung from defending to dismantling formal white supremacy, the practical import of colorblindness shifted from promoting to defeating integration, and its valence slipped from progressive to reactionary" (p. 989).

Omi and Winant (2014) describe this process as an example of *rearticulation*. When initial efforts at mass white resistance to integration failed,² those hostile to racial equity instead shifted tactics by appropriating a key term from their opponents' lexicon, namely colorblind. By enshrouding efforts to undo the gains of the Civil Rights movement in prominent language from that movement, this rearticulation process succeeded in finding a wider and more receptive audience.

Within conservative legal scholarship and think-tanks, rearticulating colorblind meant not only laying claim to Justice Harlan's dissent in the *Plessy* case quoted above (see López 2007), but also reinterpreting deliberations within the Reconstruction Congress in the decade following the U.S. Civil War to argue that the U.S. constitution is, because it always has been, colorblind (see Anderson 2007). That is, conservative proponents of reactionary colorblindness have drawn a direct line from these historical antecedents to the post-civil rights era so as to maintain that race-conscious remedies such as affirmative action are not only unfair (to whites), but in fact unconstitutional.

López (2007) pays particularly close—and scathing—attention to liberal rearticulation of colorblindness in his history of legal debates over affirmative action. He uses the work of Nathan Glazer and Daniel Moynihan (such as their 1963 book *Beyond the Melting Pot*) to exemplify the tenets of 'liberal race theory:' (1) racism is primarily an issue of individual prejudiced attitudes, not oppressive structures and social practices; (2) the United States is best understood as a nation of immigrants (including the descendants of enslaved Africans), meaning that contemporary 'race relations' are not defined by a Black/white divide, but rather by multiple ethnic groups competing amongst each other; and, therefore, (3) to grant special and collective privileges to one group over another would be to create new forms of discrimination. As López notes, it was in fact blue-blooded Northern

¹ This term often invokes images of Klansmen or neo-Nazis in the United States. However, I follow Fields and Fields (2014) in seeing no meaningful distinction between white supremacists who wear hoods and those who wear judges' robes or academics' spectacles.

² One effort, namely angry white mobs harassing and threatening Black youth as they tried to enter formally desegregated schools, produced some of the key images associated with the Civil Rights movement in the U.S. Other efforts, such as shutting down entire public school systems to evade desegregation orders, are less widely known.

176 J. Bale

liberals, not necessarily obstinate Southerners, who lay the ideological foundation for undoing race-conscious educational policies such as affirmative action.

Parallel to this process of rearticulating colorblindness from progressive to reactionary terms, K-12 education policy in the 1980s began to shift its explicit intent away from eradicating poverty and discrimination and towards promoting excellence and economic competitiveness (Wells 2014). A Nation at Risk, the 1983 report issued by the U.S. Department of Education, is often cited as the marker of this shift. As has been widely noted (e.g., Labaree 2014), the report decried "a rising tide of mediocrity" (NCEE 1983, p. 7) which threatened the United States' position as a world leader. The boldness of the report's claims both fit with and further animated claims that "equity-minded' Civil Rights policies were . . . overly regulatory and, even worse, a prominent cause of the faltering U.S. economy" (Wells 2014, p. 1).

Wells (2014) organizes the many K-12 education reforms initiated in the wake of *A Nation at Risk* into two broad groups: a standards movement that ultimately grew into an accountability movement of high-stakes standardized testing; and a series of market-based school choice policies. Others have construed these policies as manifestations of neoliberalism, in that they are part of the broader restructuring of the economy and state provision of social services that dates back to the early 1970s (e.g., Lipman 2011; Saltman 2007). What is remarkable about these policies is not necessarily their colorblind characteristics, insofar as they explicitly define outcomes in terms of educational excellence and not equity in educational attainment. Rather, and despite their formal colorblindness, what is noteworthy about these policies is that their proponents often frame them as the most effective way to reduce the so-called achievement gap between various racial groups.

Wells (2014) summarizes the peculiar logic at play: "Ignore stark racial inequality when implementing policies and then bemoan vivid racial inequalities in educational outcomes" (p. 1, emphasis original). Similar to how, a generation ago, opponents of race-conscious policies appropriated the term colorblind to advance their position, contemporary advocates of colorblind policies seek—and find—enormous political cover by positioning these reforms as the best tools for redressing racial inequity at school. Indeed, we live in peculiar times when a Goldman Sachs banker can rise at a fundraiser for a charter school³ network in New York City and motivate his and the network's efforts as "the civil rights struggle of my generation" (cited in Jones 2012, p. 68).

³ Charter school laws vary from state to state, so defining them can be difficult. In almost every case, however, charter schools receive public funding but are exempt from public oversight. Instead, charters are privately managed, whether by a for-profit corporation or a board of directors separate from the public system. Moreover, charters are typically exempt from catchment policies, meaning that children living in the neighbourhood around a given charter school do not have the right to attend it as they do with a public school. The largest charter school operators in the United States are managed by for-profit corporations such as Leona Group and Mosaica. In almost every case, charter schools are non-union workplaces.

13.1.2 Colorblindness and NCLB

Of course, the history of colorblindness as a metaphor for educational change is not merely one of rhetorical strategy and counter-strategy. Rather, these rhetorical disputes have had negative, material consequences for racialized students in U.S. schools. The primary mechanism of this decline has been the No Child Left Behind Act of 2001 (NCLB). This bill, a reauthorization of the 1965 Elementary and Secondary Education Act, accelerated a number of trends in school reform that had been underway for at least two decades.

The policy requires states to establish clear curriculum standards, and then to measure student mastery of those standards with standardized tests. The novelty of NCLB is in attaching an 'accountability system' to these test results so as to goad schools and the people in them to meet mandated outcomes. Schools that do not meet annual testing benchmarks are thus subject to a number of (mostly punitive) measures, ranging from coaching and mandated curricular interventions to reconstitution (a polite euphemism for replacing the entire school staff) and being shut down altogether. As Wells (2014) notes, the only specifically race-conscious aspect of NCLB is its mandate to disaggregate student test scores according to the racial and ethnic classification systems recognized by the federal government. Otherwise, NCLB is the culmination of colorblind education reforms since the 1980s designed to use external accountability measures to define and measure educational excellence.

In the 12 years since NCLB became law, a rich body of literature has documented its impact on the educational experiences of students of colour. One focus of this research has been the consequences of high-stakes testing on the curriculum itself, in particular in schools where racialized students comprise the vast majority. This work has documented both a narrowing of the curriculum, as content not relevant to high-stakes testing is struck, and a reduction of the curriculum to test preparation (e.g., Au 2008). A second focus of this research has been the intersection of NCLB with charter school and other school privatization policies. This work has taken the form of case studies of specific cities to document how NCLB's accountability regime has been used to justify the restructuring of urban

⁴ In fact, it was this single provision that helped generate so much support for NCLB among mainstream Civil Rights organizations when it was first proposed. The logic was that by 'shining a light' on test scores according to students' race and/or ethnicity, it would become clear how poorly schools were serving students of colour. Disaggregated test scores would thus pressure schools to do better or face the consequences. Note that, almost 15 years later, many of the same Civil Rights organizations have recently called on the Obama administration to end the very testing practices they lent their support to in 2000 and 2001 (see http://www.washingtonpost.com/blogs/answersheet/wp/2014/10/28/eleven-civil-rights-groups-urge-obama-to-drop-test-based-k-12-accountabil ity-system/). One noticeable absence from the list of organizations reported in the news article linked here is the National Council of La Raza (NCLR), a leading Latino civil rights organization. NCLR, in fact, is a sponsoring partner of the Understanding Language project described later in the paper that is working to make the new Common Core State Standards effective for English learners.

school systems. Those schools that are repeatedly—and publicly—labeled as failing are ultimately shut down. Many are subsequently re-established as charter schools, under quasi-private management and often with non-union staff. In places such as Chicago, Detroit, Philadelphia, and Washington, DC, dozens of schools at a time have been restructured in this way, which begs the question whether there will still be a public education system of neighbourhood schools 5 or 10 years from now (e.g., Caref et al. 2012; Lipman 2011). A third focus of this research has examined the intersection of NCLB with other mechanisms of racialized sorting, such as housing and teacher allocation policy, which have sharpened racialized disparities in educational outcomes (e.g., Wells 2014).

Wells (2014) captures the central irony of these developments: while race-conscious policies from the Civil Rights era coincided with the most dramatic decline in the achievement gap between white and Black students in U.S. history, colorblind policies from the 1980s onward—and in particular NCLB—have left schools (and school districts) increasingly segregated, more poorly resourced, and less subject to public (i.e., democratic) oversight.

13.2 Tone-Deafness and Research on Language Education

The first section of the chapter traced educational research that uses the metaphor of colorblindness to historicize school policies and pedagogies in terms of their relationship to racial equity and to expose how contemporary colorblind policies have exacerbated racial inequity. The chapter now turns to questions of linguistic equity at and through school. Specifically, this section introduces a parallel metaphor of tone-deafness and asks what possibilities it opens up for understanding the relationship between speakers of minoritized languages and school.

The most obvious difference between these two metaphors is that tone-deafness has never functioned as a key term either in efforts to repress or promote non-English language usage in U.S. schools. Nevertheless, tone-deafness might allow us to consider both historical and current iterations of language education policy in terms of whether a given policy were language-neutral or language-conscious (whether in discriminatory or emancipatory ways), and whether there are inconsistencies in the stated aims of a given policy and its symbolic or actual impact.

13.2.1 Historicizing Tone-Deafness

Educational research on the history of language education in the United States often uses a pendulum metaphor to describe formal language policies that range from repressive to tolerant to promotional in orientation. For example, the Progressive Era (i.e., roughly 1880 through World War I) is associated with the rise of formal

and informal Americanization policies that relied on schools in particular to instil English-language and middle-class, Anglo cultural practices in immigrant and Native American children. Within applied linguistic research on education, there remains a broad consensus that Americanization and its related language policies were intentionally restrictive in orientation, seeking to ensure that English displaced (rather than added to) students' linguistic repertoire (e.g., Bale 2011; Herman 2002; Lomawaima and McCarty 2006; Ricento 2003; Wiley 1998, 2002, 2007). More recent educational historiography has begun to question how exclusively repressive Americanization processes were by highlighting immigrant agency in choosing which (Anglo-)American practices they adopted and which linguistic and cultural practices from their heritage they maintained (e.g., Mirel 2010; Ramsey 2010; Zimmerman 2002; see Spack 2002 for analysis regarding Native Americans and English-language practices).

Irrespective of the extent to which Anglo linguistic and cultural practices were imposed, negotiated, and/or appropriated, there is little dispute as to the outcomes of this era: (1) it marked the end of German as the most prominent non-English community language, as well as the extensive tradition of German-English bilingual schooling in many areas of the U.S. (Ramsey 2010; Wiley 1998); (2) it led to the wholesale removal of non-English language study from the elementary school curriculum; (3) and, as secondary enrolments began to increase dramatically after World War I, it led to codifying secondary-level foreign language study as an elite project for English-speaking, university-bound students (see Watzke 2003).

Similar to original definitions of colorblindness, efforts in the 1930s and 1940s to push back against Americanization and its related English-only language policies focused first on removing restrictive policies. In this sense, we might consider early efforts to challenge language-based discrimination as demands that social policy be tone-deaf in its orientation, that is, neither to classify nor discriminate between different languages used in the U.S. and its schools. However, there is an important distinction to make, namely: these efforts were often subsumed under other categories of concerns, not raised as explicit independent demands. One lesser-known example is the work of Emma Tenayuca and Homer Brooks, who served as the chair and secretary, respectively, of the Communist Party's (CP) chapter in Texas. While they contributed to organizing El Congreso del Pueblo de Habla Española, a civil rights organization sponsored by the CP (Laralde 2004), and developed theoretical positions on Mexican Americans and nationalism for the Party itself (e.g., Tenayuca and Brooks 1939), their primary vehicle for organizing against anti-Mexican racism was CP-backed labour unions (see Vargas 2005). Indeed, little of this activism focused on schools or questions of language-based discrimination at all. Moreover, the school-based activism that did take place during this era tended to focus on Jim Crow-style segregation of Mexican-American students. In fact, the first legal ruling against segregation in the U.S. was in a 1946 California case about so-called Mexican schools (see San Miguel 2004). As such, challenging languagebased discrimination took place within the rubric of labour and race-based civil rights.

By contrast, various civil rights movements in the 1960s and 1970s of Chicano, Puerto Rican, Asian, and Native American activists forced a radical shift in the education of emergent bilingual students (that is, speakers of other languages who are learning English at school). The Chicano movement, for example, developed in many ways as a rejection of the liberal agenda of assimilation that dominated Mexican American political groups after World War II (García 1997; San Miguel 2001). Persistent segregation, poverty, and racism exposed the limits of assimilationist goals, as well as divergent political strategies between middle- and workingclass Mexican Americans (San Miguel 2001). As Ignacio García (1997) described it: "In their [Chicano activists'] eyes, American institutions, such as the government, schools, churches, and social agencies, had failed. American institutions, as far as activists were concerned, were inherently racist" (p. 10). Rediscovering and revitalizing Chicano history, including the Spanish language, became a primary goal. Importantly, this movement was made up as much of descendants of Mexicans indigenous to the territories the United States annexed in the mid-nineteenth century as it was of immigrants. Insofar as bilingual and bicultural education reforms became central demands of a movement comprised largely of local, school-based struggles, we can see a shift in activists' efforts away from demands for tone-deaf policies (i.e. policies free from language-based discrimination), and towards specific calls for language-conscious policies to support and extend multilingual practices at school.

Historiography of the Chicano movement has detailed the alliances between student activists, teachers, applied linguists, and members of radical political organizations in organizing discrete movements for bilingual and bicultural education programs, often school-by-school and district-by-district, in the desert Southwest (e.g., García 1997; Navarro 1995; San Miguel 2001, 2004; Trujillo 1998). By contrast, educational research has tended to position formal policies themselves as the motors driving the history of bilingual education (e.g., Gándara et al. 2010; Salamone 2010). In reference to the African American civil rights movement, Fields and Fields (2014) have dubbed this latter perspective 'Presidentitis,' that is, misreading history of as a series of decisions made by Important People, rather than understanding their decisions in relation to broader social contexts and specific mass movements to combat racism and discrimination. I have argued elsewhere that, with respect to the history of bilingual education, this distortion has led to widely held assumptions that the Bilingual Education Act of 1968 and the Lau Remedies of 1974 represented the *high point* of promotional, affirmative bilingual education policy in the United States, rather than the starting point (Bale 2012). In other words, it was social movements that forced open the ideological and implementational space (Hornberger 2006) to allow for such formal policies to exist at all. Yet, as these same movements began to fall apart by the late 1970s, those sectors of U.S. society hostile to civil rights in any form, whether as bilingual education or as affirmative action, proved successful in again shutting the ideological and implementational space for bilingual education.

On the one hand, anti-immigrant political movements used bilingual education as low-hanging political fruit to nourish broader anti-immigrant sentiments in the United States. These efforts culminated at the turn of the century in three state-level ballot initiatives to restrict or ban outright bilingual education programs in schools (Wiley and Wright 2004).

On the other hand, however, drawing a parallel between colorblindness and tone-deafness helps us to see the extent to which bilingual education has been undermined by policies that are, at least in formal terms, language-neutral. As Ofelia García (2009) has noted, this has happened at a symbolic level in terms of the rhetorical shifts in federal education policy. NCLB not only erected a new accountability regime of standardized testing, but its passage also abolished the Bilingual Education Act. In lieu of explicitly naming bilingualism or bilingual education, federal education policy now focuses exclusively on English-language education and English-language proficiency as the goal of the compensatory language programming. Moreover, as Menken (2008) has detailed, the language in which highstakes literacy testing takes place has further undermined bilingual education programs—even in those states where bilingual education is still formal policy. While NCLB allows states to test student mastery of math and science using other languages as the medium of the exam, literacy must be tested in English. The high stakes attached to test results have exerted enormous pressure on schools to replace bilingual programming with English-only compensatory services in the hope (completely unsubstantiated by a generation's worth of applied linguistic research) that emergent bilinguals will learn English faster and thus score better on the exam. In this way, we can see the parallels between colorblind educational policy and its negative impact on racialized students and tone-deaf educational policy and its negative impact on speakers of minoritized languages.

13.2.2 The Common Core State Standards and Tone-Deafness

In the United States, the Common Core State Standards (CCSS) represent the next stage of using high-stakes standardized testing to measure student mastery of literacy and mathematics skills.⁵ As such, their potential impact on schools and the people in them has become a major focus of educational research. Development of the standards was organized by a private organization (Achieve, Inc.), which had been contracted by two non-governmental organizations (the National Governors Association and the Council of Chief State School Officers). The standards themselves were written mostly by academics, consultants, and assessment experts. Teachers were brought into the development process only towards the end, and only then to revise. Parents and students as distinct educational stakeholders were not consulted at all. The entire process was funded largely by the Bill and Melinda

⁵ There is a parallel set of standards for science education, called the Next Generation Science Standards, which I do not address in this chapter.

182 J. Bale

Gates Foundation. Accompanying the CCSS are new standardized tests to assess student mastery of them. Currently, there are two consortia developing tests to align with the standards. Clearly, the logic of the CCSS in using increasingly high-stakes tests to measure student mastery of increasingly homogenized curriculum does not represent a break from NCLB. On the contrary, the new standards and the testing regime associated with them have doubled down on it.

Although the CCSS were developed largely outside formal educational policy-making processes, they were quickly adopted by some 45 states and 4 U.-S. territories. One fact alone accounts for this. In response to the financial crisis in 2007–2008, the Obama administration promised over \$4 billion in new federal funding for public schools in a policy measure called Race to the Top (RTTT). However, in order for states to receive that funding, they had to adopt the CCSS, among other policy initiatives outlined in RTTT, and decide which of the two testing consortia to align with.

The CCSS have generated significant controversy from across the political spectrum. In general, opposition to the CCSS from the political right has focused on the content of the standards themselves and the claim that the CCSS amount to federal meddling in local public schools. Conservative opponents have used both traditional and social media to 'expose' outlandish curricular items and activities tied to the CCSS. Also, despite the strategic use of the word 'state' in the name of the standards, conservative opponents have argued, it is clear that the standards are meant to be adopted nationally. The CCSS are thus construed as a violation of both the formal devolution of political control over public schools in the U.S. from the federal to the state level, and of the deeply held ideological stance that schooling is a local matter. By contrast, opposition to the CCSS from the political left tends to focus on the undemocratic and unaccountable nature in which they were developed; the increasing privatization of public education attendant to them (not only in the sense that private actors developed the standards and were bankrolled by a private foundation, but also that the standards and related tests will create and deliver a massive national market to curriculum, technology, and assessment vendors); and the continued distortion of the curriculum as schools and teachers feel pressured to 'teach to the test' so as to avoid the punitive consequences for not meeting expectations.

Given both the scope of the new standards and the speed with which they arrived on the scene, the CCSS have provoked a series of questions as to how they will impact the educational experiences and outcomes of emergent bilingual students. Typically, educational research frames the urgency of these questions in demographic terms: emergent bilingual students are both the fastest-growing segment of the K-12 population, and they represent about 10.5 % of all K-12 students.

⁶ Some conservative political resistance to CCSS has persuaded several states, as of this writing, to rethink or entirely abandon the CCSS project. In other words, the adoption process is still fluid and contested.

The most concerted and ongoing effort to understand the CCSS as they relate to emergent bilingual students is the Understanding Language project associated with Stanford University. The project brings together some of the most highly respected researchers on bilingual and English-language education (such as Kenji Hakuta, who co-chairs the project, and Guadalupe Valdés) with school district partners, former school district leaders, and independent researchers. As the project says about its own mission, "we seek to improve education for all students—especially English Language Learners. To that end, we are synthesizing knowledge and developing resources that help ensure teachers can meet their students' evolving linguistic needs as the new [CCSS] are implemented' (see http://ell.stanford.edu/about). This final section of the paper uses the publications and presentations of the Understanding Language (UL) project to get a better sense of how the notion of tone-deafness operates in contemporary educational research.

The UL project has marshalled the remarkable expertise of its contributing members to analyze both the literacy and math content of the CCSS. Their analyses have made significant claims about the potential these standards hold for English learners. Perhaps most important, the standards mark an important shift in how the relationship between language and content is conceived. Some approaches to English language education take a stage-ist perspective that assumes sufficient language proficiency must be developed before serious engagement with age- or grade-appropriate curricular content can begin. Other approaches have tried to unify language and content learning, but have done so in so-called sheltered environments in which academic language is simplified (i.e., sheltered) so as to scaffold student engagement with the content.

By contrast, according to UL position papers and analyses, the CCSS insist on rich academic language for all students, thereby exposing English learners to a more rigorous and robust academic environment than has often been the case in the past. This single move has a number of consequences for the quality of instruction that English learners receive. For one, it presupposes that English learners will learn the language through rich content. For another, it focuses literacy instruction on both text and discourse. That is, it shifts literacy instruction away from a heavy focus on decoding skills and instead gives English learners access to instructional tasks that require the use of academic and complex critical thinking. Finally, the math standards support this approach to academic language development as well insofar as they focus on the language of math, that is, the language of explanation, reasoning, and argumentation associated with mathematical functions (see Bunch et al. 2012; Hakuta 2011b).

In their position paper from a 2012 conference of researchers associated with the UL project, Pompa and Hakuta (2012) summed up their perspective on the CCSS as "it's the language, stupid!"⁷ (p. 2). That is, attention to academic language

⁷ My assumption is that this exclamation is a play on a now infamous factoid from the 1992 presidential race, in which a Clinton advisor refocused the campaign on one sole topic to garner votes: "it's the economy, stupid!".

184 J. Bale

development is evident throughout the English language arts and mathematics content standards, and this represents a major opportunity to transform the educational experiences of English language learners.

Perhaps one reason that the publications and presentations of the UL project focus so much on the *potential* of the CCSS and how to *leverage* the CCSS to work for English learners is the fact the standards themselves are silent on the question of English language education. That is, there is neither explicit discussion of how to differentiate standards-based instruction for English learners, nor is there explicit endorsement of any set of strategies to implement these standards with English learners. That is, the UL project can exist at all because someone has to do the work of making the CCSS relevant to English language education since the standards themselves do not. To be fair, this silence is consistent with the standards movement in the United States, at least the era of the movement dating back to the 1980s, in avoiding any prescription of *how* to teach and focusing only on *what* to teach.

Moreover, the default language of instruction in the CCSS is English. That is, the rich, rigorous, and robust academic language and complex cognitive tasks that the UL correctly identify in the standards presume English as the sole medium and target of instruction. Only in an appendix is any mention of students' home language(s) made, and then only as a resource for math instruction. Otherwise, the CCSS are silent on bi- or multilingual proficiency, and whether the paradigm shift the standards reflect with respect to the relationship between language and content can or should be developed in any language other than English. On both counts then (i.e., using the standards with English learners specifically and whether the standards allow for multilingual proficiency and/or literacy), the CCSS clearly qualify as the latest instantiation of tone-deaf education policy in the United States.

It is noteworthy that education research that is so clearly focused on language development (recall: "It's the language stupid!") would in turn remain silent on the tone-deafness of the CCSS. More peculiar still, however, is how the UL project has positioned the CCSS in relation to the history of education policy in the United States. Both in print and in presentations, Hakuta (2011a, b) has drawn a direct line between the first iterations of federal education policy in the 1960s through the *Nation at Risk* era to today with NCLB and now the CCSS. With each iteration and reauthorization of federal policy, Hakuta argues, more focused attention was paid to English learners, in particular to the assessment of English learners. Those developments, now coupled with a renewed framing of the language-content connection in the CCSS, are construed as new opportunities to foster educational equity for English language learners at and through school.

Reading this argument against the history of educational research on colorblindness, however, leads to a dramatically different conclusion. At issue here is awareness of any connection between the "metamorphosis in the political register of colorblindness" (López 2007, p. 989) and political attitudes towards

⁸ Indeed, Hakuta (2011a) is the print version of a lecture he gave as part of the *Brown* series held at the annual meetings of the American Educational Research Association.

what are or should be the linguistic outcomes of schooling. Similar to the rearticulation process by which opponents of racial integration used notions of colorblindness to undo concrete gains of the civil rights movements, there is a parallel process by which the greater attention paid to English language education has in fact worked to undo bilingual education as a programmatic option in U.S. schools. Moreover, there is no evidence that the dramatic expansion of standardized testing of English learners (whether specifically of their English language proficiency or on the general literacy exams that all students take) has done anything to improve the educational experiences since NCLB was implemented. In this way, the UL's focus on and calls for *more* assessment of English language learners misses entirely how the assessment regimes mandated by colorblind (and tone-deaf) policies such as NCLB have negatively impacted public education.

Perhaps most consequential, the combination of this rearticulation and the dramatic expansion of high-stakes assessment regimes undermines the very notion that it is acceptable, let alone optimal, for speakers of minoritized languages to leave school bilingual and biliterate. To be clear, there is no doubt that the team of scholars and practitioners associated with the UL project are committed to educational equity for English learners at and through school. This stands in stark contrast to the social and political forces that recast the meaning of colorblindness from progressive to reactionary terms as discussed above. However, that general change in discourse has dramatically narrowed the terms in which education equity for English language learners is defined. Extending the notion of colorblindness to tone-deafness opens new possibilities for redefining and expanding what equity for emergent bilinguals might look like.

References

- Anderson, J. D. (2007). Race-conscious policies versus a "color-blind constitution": A historical perspective. *Educational Researcher*, *36*, 249–257.
- Au, W. (2008). Unequal by design: High-stakes testing and the standardization of inequality. New York: Routledge.
- Bale, J. (2011). Tongue-tied: Imperialism and second language education in the United States. *Critical Education*, 2(8), 1–25.
- Bale, J. (2012). Linguistic justice at school. In J. Bale & S. Knopp (Eds.), *Education and capitalism: Struggles for leaning and liberation* (pp. 77–107). Chicago: Haymarket Books.
- Bunch, G.C., Kibler, A., & Pimental, S. (2012). Realizing opportunities for English learners in the Common Core English language arts and disciplinary literacy standards. Palo Alto, CA: Stanford University. Retrieved from http://ell.stanford.edu/sites/default/files/pdf/academic-papers/01_Bunch_Kibler_Pimentel_RealizingOpp%20in%20ELA_FINAL_0.pdf
- Caref, C., Hainds, S., Hilgendorf, K, Jankov, P., & Russell, K. (2012). The black and white of education in Chicago's public schools. Chicago: Chicago Teachers Union. Retrieved from http://www.ctunet.com/quest-center/research/position-papers/privatization-the-black-whiteof-education-in-chicagos-public-schools
- Fields, K. E., & Fields, B. J. (2014). Racecraft: The soul of inequality in American life. London: Verso Books.

- Gándara, P., Losen, D., August, D., Uriarte, M., Gómez, M. C., & Hopkins, M. (2010). Forbidden language: A brief history of U.S. language policy. In P. Gándara & M. Hopkins (Eds.), Forbidden language: English learners and restrictive language policies (pp. 20–35). New York: Teacher College Press.
- García, I. (1997). Chicanismo: The forging of a militant ethos among Mexican Americans. Tucson: University of Arizona Press.
- García, O. (2009). Bilingual education in the 21st century: A global perspective. Malden: Wiley-Blackwell.
- Hakuta, K. (2011a). Education language minority students and affirming their equal rights: Research and practical perspectives. *Educational Researcher*, 40, 163–174.
- Hakuta, K. (2011b, November 13). *English language learners and the Common Core State Standards*. Paper presented at SCOPE, Stanford University. Retrieved from https://edpolicy.stanford.edu/sites/default/files/events/materials/hakuta-brownbag-ppt.pdf
- Herman, D. M. (2002). "Our patriotic duty": Insights from professional history, 1980–1920. In T. Osborn (Ed.), *The future of foreign language education in the United States* (pp. 1–29). Westport: Greenwood Publishing Group.
- Hornberger, N. H. (2006). Nichols to NCLB: Local and global perspectives on U.S. language education policy. In O. Garcia, T. Skutnabb-Kangas, & M. E. Torres-Guzmán (Eds.), *Imagining multilingual schools: Languages in education and glocalization* (pp. 223–237). Clevedon: Multilingual Matters.
- Jones, B. (2012). The struggle for Black education. In J. Bale & S. Knopp (Eds.), *Education and capitalism: Struggles for learning and liberation* (pp. 41–69). Chicago: Haymarket Books.
- Labaree, D. (2014). Let's measure what no one teaches: PISA, NCLB, and the shrinking aims of education. *Teachers College Record*, 116(9). Retrieved from http://www.tcrecord.org/content.asp?contentid=17533
- Laralde, C. M. (2004). El congreso in San Diego: An endeavor for civil rights. Journal of San Diego History, 50(1), 17–29.
- Lipman, P. (2011). The new political economy of urban education: Neoliberalism, race, and the right to the city. New York: Routledge.
- Lomawaima, K. T., & McCarty, T. L. (2006). To remain an Indian: Lessons in democracy from a century of Native American education. New York: Teachers College Press.
- López, I. F. H. (2007). "A nation of minorities": Race, ethnicity, and reactionary colorblindness. Stanford Law Review, 59, 985–1063.
- Menken, K. (2008). English learners left behind: Standardized testing as language policy. Clevedon: Multilingual Matters.
- Mirel, J. E. (2010). *Patriotic pluralism: Americanization education and European immigrants*. Cambridge, MA: Harvard University Press.
- National Commission on Excellence in Education (NCEE). (1983). A national at risk: The imperative for educational reform. Washington, DC: U.S. Department of Education. Retrieved from http://www2.ed.gov/pubs/NatAtRisk/index.html
- Navarro, A. (1995). Mexican American Youth Organization: Avant-garde of the Chicano movement in Texas. Austin: University of Texas Press.
- Omi, M., & Winant, H. (2014). Racial formation in the United States (3rd ed.). New York: Routledge.
- Pompa, D., & Hakuta, K. (2012). Opportunities for policy advancement for ELLs created by the new standards movement. Palo Alto: Stanford University. Retrieved from http://ell.stanford. edu/sites/default/files/pdf/academic-papers/12-Pompa%20Hakuta%20Policy%20Principles% 20FINAL.pdf
- Ramsey, P. J. (2010). Bilingual public schooling in the United States: A history of America's "polyglot boardinghouse.". New York: Palgrave Macmillan.
- Ricento, T. (2003). The discursive construction of Americanism. *Discourse & Society*, 14, 611–637.
- Ruiz, R. (1984). Orientations in language planning. *NABE Journal*, 8, 15–34.

- Salamone, R. C. (2010). *True American: Language, identity, and the education of immigrant children*. Cambridge, MA: Harvard University Press.
- Saltman, K. (2007). Introduction. In K. Saltman (Ed.), Schooling and the politics of disaster (pp. 1–21). New York: Routledge.
- San Miguel, G., Jr. (2001). Brown, not white: School integration and the Chicano movement in Houston. College Station: A&M University Press.
- San Miguel, G., Jr. (2004). Contested policy: The rise and fall of federal bilingual education in the United States, 1960–2001. Denton: University of North Texas.
- Spack, R. (2002). America's second tongue: American Indian education and the ownership of English. 1860–1900. Lincoln: University of Nebraska Press.
- Tenayuca, E., & Brooks, H. (1939). The Mexican question in the Southwest. *The Communist*, 18 (3), 257–268.
- Trujillo, A. (1998). Chicano empowerment and bilingual education: Movimiento politics in Crystal City, TX. New York: Garland Publishing.
- Vargas, Z. (2005). Labor rights are civil rights: Mexican American workers in twentieth-century America. Princeton: Princeton University Press.
- Watzke, J. L. (2003). Lasting change in foreign language education: A historical case for change in national policy. Westport: Praeger.
- Wells, A.S. (2014). Seeing past the "colorblind" myth: Why education policymakers should address racial and ethnic inequality and support culturally diverse schools. Boulder, CO: National Education Policy Center. Retrieved from http://nepc.colorado.edu/publication/see ing-past-the-colorblind-myth.
- Wiley, T. G. (1998). The imposition of World War I-era English-only policies and the fate of German in North America. In T. Ricento & B. Burnaby (Eds.), Language policies in the United States and Canada: Myths and realities (pp. 211–241). Philadelphia: Lawrence Erlbaum Associates.
- Wiley, T. G. (2002). Accessing language rights in education: A brief history of the U.S. context. In J. W. Tollefson (Ed.), *Language policies in education: Critical issues* (pp. 39–64). Mahwah: Lawrence Erlbaum Associates.
- Wiley, T. G. (2007). The foreign language "crisis" in the U.S.: Are heritage and community languages the remedy? *Critical Inquiry in Language Studies*, 4, 179–205.
- Wiley, T. G., & Wright, W. E. (2004). Against the undertow: Language-minority education policy and politics in the "age of accountability". *Educational Policy*, 18, 142–168.
- Zimmerman, J. (2002). Ethnics against ethnicity: European immigrants and foreign-language instruction, 1890–1940. *The Journal of American History*, 88, 1383–1404.

Chapter 14 A Belief in Magic. Professionalization in Post Second World War Forced Child Protection

Jeroen J.H. Dekker

14.1 Introduction

In the 1930s, 1940s and 1950s of the nineteenth century, residential care for criminal, deprived and neglected children was born with in nineteenth century Europe thousands of homes emerging (Dupont-Bouchat et al. 2001; Dekker 2001; Lindmeier 1998; Groenveld et al. 1997; Forlevisi et al. 2005; Carlier 1994; Dekker and Lechner 1999; Foucault 1975). Although scientific methods for diagnosis and therapy were not introduced before the twentieth century and professionalization got a real boost only after the Second World War, from the beginning a standardized view on children at risk and a systematic approach, for example in admitting procedures, were not exceptional and a manifestation of a more rationalized view on children at risk (Dekker 2001, 2002). After the Second World War, child protection, for decades based on the work of volunteers and of people without certification, became a fully professionalized system. And it became characterized by a discourse of change. The justification of changing child protection by constantly professionalizing the personnel and by increasingly using research results from behavioural and medical sciences was to be found in high expectations of changing bad behaviour of children and parents in the good direction by making the system better, i.e. more effective. This ongoing change was based on a strong belief in the magic of professionalization and science.

In this paper, we turn to the constant urge to professionalization and scientific research in a context of a change discourse after the Second World War. After a brief look at the Inter-bellum years (2), the transformation of child protection into a

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190 J.J.H. Dekker

fully professionalized system in the 1950s and 1960s will be looked at (3). Then, we turn to the going together of accelerated professionalization and an orientation on the behavioural and medical sciences in the 1970s with a dramatic decrease of belief in the effectiveness of child protection measures, which resulted in a surpassing reduction of such measures and consequently of numbers of children outplaced. Obviously, decreasing belief in child protection did not mean a decrease of a belief in the magic of professionalization (4). As a result, from the late 1980s, with belief in child protection returning, professionalization got a new boost and together with the impact of behavioural and medical sciences this resulted in a belief in the magic of something seemingly new, namely evidence based child protection (5).

14.2 A Call for Professionalization Since the Child Acts from 1905

Also after the introduction of the Child Protection Acts in 1905, child protection remained being done by volunteers and, in the residential institutions, by paid but not certified experts. Among those volunteers were the family guardians – a vital function for the communication between parents, the child, the juvenile judge, and the Guardianship Boards – and the members of the Guardianship Boards, belonging to the local upper class with among its members protestant and catholic clergymen, headmasters, local politicians, medical doctors, psychiatrists, and other highly esteemed local citizens. Only the Guardianship Board's secretary, mostly a lawyer, was paid. In the residential institutions where children were placed after decisions by the Guardianship Board and the juvenile judge, volunteers played a minor role but the paid personnel was not certified and learned by doing, this with the exception of the institution's schoolmaster because of legal requirements since the 1806 school acts.

The main exception on the rule was the juvenile judge. He – only after the Second World War also women were appointed – was both paid and a professional, worked closely together with family guardians and members of the Guardianship Boards and was responsible for child protection measures, among them sending children into residential institutions. During the Parliamentary debate on the child acts in 1901, Pieter Jelles Troelstra, MP for the social-democratic SDAP and the party's political leader, emphasized the necessity of a special juvenile judge with educational expertise in a debate on the expertise of judges – juvenile judges were

¹ This paper is based on research into the following professional journals: *Tijdschrift voor Maatschappelijk Werk* (on 1949–1978), *SJOW* (on 1973–1989), *Tijdschrift Jeugdhulpverlening en Jeugdwerk (TJJ)* (on 1989–1997), *Nederlands tijdschrift voor Jeugdzorg* (on 1997–2007), and *Jeugdbeleid* (from 2007 to 2011), together with research into the archives of two residential institutions, namely *Nederlandsch Mettray* and the *Heldring Tehuizen*. See Dekker et al. (2012).

not appointed before 1922 – who had to execute the new child acts (de Vries and van Tricht 1905; Dekker 2001, 2010). After the introduction of the child acts in 1905, the call for more expertise for the judges together with criticism on their amateurism, both from child protection practice and from the state, did not stop (Weijers 1999). This eventually, in 1922, resulted in the introduction of juvenile judges, with two main tasks, namely imposing a measure of child protection and supervising its implementation. The first juvenile judges, among them H. de Bie from Rotterdam and his Amsterdam colleague G.T.J. de Jongh, became great personalities in the world of child protection.

While child protection grosso modo did not professionalize in these years, the call for professionalization was not absent, not surprising because of the introduction of standardization techniques in the nineteenth century in coping with various social issues, among them poverty, criminality, psychiatric care, and the care for children at risk (Poovey 1995; Becker and Dekker 2002; Petit 1990; Farge 1986a, b: Dekker 1990). Among those techniques was the standardized protocol which put systematically together the answers given on the questions and made reality of the Latin saying "quod non est in actis, non est in mundo" [It does not exist when it is not in the Records (Becker 2005, 36 (quotation)). This standardization contributed to social regulation, main aspect of nineteenth century child protection (Fecteau and Harvey 2005; Dekker 2007; Siegert and Vogl 2003), both by the state and by private institutions (Bec et al. 1994; Cunningham and Innes 1998; Dekker 2001). The early introduction of standardization in child protection, on particular in admission procedures, went together with a changing image of children at risk. Instead of being dominated by romantic ideas, the will to change bad behaviour of children became dominant, resulting in the wish to know as much as possible of childhood and education, or, the disenchantment of the child (Dassen 1999; Wax 1991; Dekker 2002, 2011).²

In the Inter-bellum, several child protection associations attempted to professionalize their often already standardized ways of working, among them the *Protestant Centraal Bond voor Inwendige Zending en Christelijk-Philanthropische inrichtingen* [Central Union for Internal Mission and Christian-Philanthropic Institutions] in a report from 1923 on personnel in children's homes, and the *Nederlandse Vereniging voor Armenzorg en Weldadigheid* [Dutch Association for Poor Relief and Benevolence] through a commission installed in 1928 on the issue of education of child protection personnel. According to this commission, working in children's homes was less attractive because of little space for individual treatment, low salaries, weak legal status, less attractive working times (also in the evening and during the night), finally the "general idea that the working space was not very attractive, did not give satisfaction and even made the personnel

² Max Weber (1864–1920) made the concept famous in his analysis of rationalization in 'Science as a Profession' [Wissenschaft als Beruf], originally a lecture at the University of Munich on November 7, 1917 (Weber, 1982, or. 1919).

[because of the often isolated location, JJHD] into hermits". No wonder that certified people, if available, preferred to work elsewhere (Prins 1949).

Still some professionalization was introduced, by training on the job, e.g. through courses given by the psychiatrist Bierens de Haan in Protestant homes like Zetten for girls and Hoenderloo for boys. While in state homes for criminal children, professionalization of the personnel started even earlier, namely before the First World War, this was not continued because of budget cuts resulting from the First World War and the 1930s depression (Komen 1949). Also the mentioned Protestant Central Union and the *Katholieke Verbond voor Kinderbescherming* [Roman Catholic Union for Child Protection] organised trainings for their personnel (Prins 1949). For the rest, the majority of the personnel in Roman Catholic institutions were members of congregations and for them work was no profession but a vocation and part of their dedication to works of mercy. This no doubt made the system cheap but it did not stimulate professionalization (Groenveld et al. 1997). This changed after the Second World War. Then the real take off of professionalization took place.

14.3 Professionalization Becomes the Standard After the Second World War

After the Second World War, a constant urge to professionalization can be found in almost all reports on child protection, starting with the influential reports by Koekebakker, Overwater, and Mulock Houwer in the 1950s, and in proceedings of commemorative congresses celebrating the 1905 child acts in 1955, 1980, and 2005 (Prins 1949; Dekker 2007). In 1955, at the celebration congress of 50 years of child acts, J. Overwater (1892–1958), president of the National Federation for Child Protection/The Dutch Union for Child Protection, in Dutch the Nationale Federatie voor Kinderbescherming/De Nederlandse bond tot kinderbescherming, former secretary of the Amsterdam Board of Guardianship and former juvenile judge in Rotterdam, in sum a celebrity in the world of Dutch child protection, looked back very critically on the past few decades. In those years children were radically separated from their parents, there was no attention for the personality of child and parents, and re-education was characterized by discipline. Yet, according to Overwater things now went in the good direction. Thanks to the development of psychology and psychiatry, the study of the personality of the child was possible. Also, according to Overwater parents and child now were separated only from each other when this was considered necessary. Even when children were outplaced, parents remained playing a role. Overwater did have visions of a constantly expanding sector. While "educational problems increasingly occur in all strata of the population", it was now thanks to "psychiatry and psychology possible to deal with them", if the hundreds of child protection institutions would professionalize (Overwater 1955; cf. Overwater 1948, 1949). Overwater and his colleagues proposed further professionalization and a stronger orientation on research as the only options for the solution of the many problems diagnosed. And indeed, professionalization became a *conditio sine qua non* for all institutions and actors in the field. This will be shown by first turning to the decision making institutions, the Guardianship Boards and the juvenile judge, and then to the children's homes. For the rest, professionalization of care in foster families, of great importance in the 1950s and 1960s and after the 1970s becoming the most favoured form of outplacement, only professionalized from the 1980s (Dekker and Grietens 2015).

Until 1995 members of *Guardianship Boards*, from 1965 mentioned *Boards for Child Protection*, were volunteers from the local elite – see above -, supported by an office. While the members thus remained volunteers, the office underwent a professionalization process directed and monitored by the Ministry of Justice (Directie Kinderbescherming 1961) since the mid-1950, and grew substantially by hiring certified social workers (Van der Bij et al. 2006, pp. 104–106; cf. Commissie tot Reorganisatie van De Voogdijraden 1949). As a result, in the 1970s this institution together with the 'Family Guardianship' was fully professionalized.

The juvenile judge was a profession from the start in 1922. In 1955, at the celebration of 50 years of Child Acts, B. Dorhout, juvenile judge in Leeuwarden, in the northern province of Friesland, proposed a demanding profile for the ideal juvenile judge: an official of wide interest, great knowledge and competencies, and life experience. Apart from having love of profession, the juvenile judge is "in the first place a lawyer" with knowledge of legal regulations and jurisprudence, stands "in the centre of life", is "a warm-hearted personality", possesses "a good judge of human character" and is "receptive for everybody". With those qualities, he can enjoy the confidence of various people, among them "a pin-up girl", "a shoplifter from an unsocial family", a "haughty noble lady", and a "degenerated prostitute". Moreover, the juvenile judge knows his 'family guardians' and visits the children's homes in which the children he outplaced are staying. He reads the reports with a critical mind. Even this was not enough for this profession. He also "keeps himself informed about literature on child psychiatry, psychology, and pedagogics, and understands, absorbs, and applies this information" (Dorhout 1955, quotation on pp. 115–116). This impressive set of demands was meant for an official in the lowest ranks of the judiciary, with other judges often looking at them as no more than academically educated social workers. People following their mission to become juvenile judge often complained about their very low career options within the judiciary. It is true that the juvenile judge was special, and not only because of the focus on children and youth. From 1922 when introduced as s specialism within the judiciary, disagreement existed about the extraordinary combination of judging and supervising the implementation of the measures imposed, including supervision of the family guardians. According to the Rotterdam juvenile judge De Bie, the Boards instead of the juvenile judge should supervise the family guardians, while his Amsterdam colleague De Jongh applauded that very combination (Doek 1972; cf. Overwater 1951; Enschedé 1968).

Let's now turn to the child admitting institutions, in particular the children's homes. After the war, the rebuilding of many homes because of severe war damage went together with a systematic campaign of professionalization of the personnel. This was not easy, for people preferred the better paid work from the Special Judicial Procedures and the Special Youth Care for children of collaborators (Tames 2009). As a result, children's homes had to accept "personnel without any preparation for its tasks" (Prins 1949, p. 54). According to psychiatrist F. Grewel in 1946, this amateurism was a shame. While appointing a teacher without the required legal qualifications was out of the question since 1806, such practices were quitter normal for the personnel of children's homes (Dimmendaal 1998).

But soon, professionalization was taken seriously. The Nationaal Bureau voor Kinderbescherming [National Office for Child Protection], the operating office of the Federation for Child Protection (Van der Ploeg 2000) in 1947 initiated a 1-year course Kinderbescherming A [Child Protection A] for personnel with caring and assisting tasks, followed in 1949 by a second 2-years course Kinderbescherming B [Child Protection B], destined for group leaders (Dimmendaal 1998). Those group leaders should no longer stand "above and next to the group but be part of the group", which made "guides or counsellors" a better name for them than group leaders, according to the director of *Nederlandsch Mettray*, a residential institution for boys, founded in 1851 (Dekker 1985, 2001; Yearly Report on 1954, p. 13). With also Roman Catholic and Protestant institutions making use of the two courses mentioned as a framework for their professionalization programs, this resulted in nation-wide accredited certificates Kinderbescherming A and B [Child Protection A and B]. Courses consisted of theoretical parts on pedagogics, psychology, child protection, residential and family care, and health, and of practical issues like manual labour, sport, games, and singing, intended for people with limited education, mostly only primary school (Prins 1949). The theoretical courses were more demanding. According to J. Komen, deputy-director of the State Reformatory for Boys in Doetinchem, his personnel had to study for 2 years, taking lessons in the evening hours given by academics like psychologists, jurists, medical doctors, and directors of children's homes (Komen 1949; Groenveld et al. 1997). For child protection personnel it became normal to work at their professionalization by following courses.

Professionalization also was stimulated by international contacts from key figures in Dutch child protection, among them J.C. Hudig, J. Koekebakker, and D.Q.R. Mulock Houwer, member of the *Union Internationale de Protection de l'Enfance*. During a meeting of this association in 1949 in Amersfoort, the standards for selection, training and legal status of personnel were substantially upgraded (N.B.K. 1950). There was a strong belief that "child protection [...] could only develop further with sufficiently trained personnel" because of the increase of sociological, psychological and pedagogical insights. Indeed, professionalization also meant that "the work should be tested constantly to the scientific insights available". While *evidence based* in its more strict form was introduced in

the Netherlands not earlier than in the 1990s, the search for a scientific foundation of child protection started in the 1950s (Werkgroep Stage 1955, pp. 4, 9).

As a result, child protection became the work of trained and certified people and residential institutions lagging behind in this respect got problems with getting re-recognition by the state, because juvenile judges no longer sent children to those institutions (Van der Bij et al. 2006). It became normal to be certified when working in a child protection profession, such as family guardian, social worker, and group leader (van Spanje 1956, 1957, 1961; Directie Kinderbescherming 1965, 1972, 1973, 1976; Van der Ploeg 2000). For all jobs in the field more professionalization was required by the Ministry of Justice. Indeed, the state was a leading force in the professionalization of child protection. In 1968, just before the start of a deep crisis of child protection, the Minister of Justice and the State Secretary of Education and Science installed the Commissie Opleiding Justitieel Inrichtingswerk [Commission on Training for Judicial Residential Education to revise the courses that started in the 1950s, for those courses were considered as divergent and ineffective now (Directie Kinderbescherming 1973). Directors of so called Social Schools, which organised the courses now criticised, immediately, among them the directors of the schools from Driebergen, Amsterdam, Eindhoven, The Hague, and Breda, published an article in which they proved to be happy with the criticism from the Ministries of Justice and of Education. They saw possibilities for a growing market for revised and new courses, in which personnel should reflect on the question of "how the child could be helped as effectively possible". According to those Social School directors, management tasks should not be given to so-called 'general managers', but to '(ortho)pedagogical experts' [special educationalists, in the Netherlands, Belgium and Germany mentioned ortho-paedagogues]. They proposed par-time and full-time courses on a variety of levels and strived for a situation in which positions on all levels within the residential child protection could be fulfilled by educated people, including university-graduates (Dekema et al. 1968, quotation on pp. 54–55).

14.4 Professionalization in the 1970s: A Downward Belief in Effectiveness of Child Protection

While professionalization was becoming the standard, the belief in the effectiveness of child protection as such came in danger. When looking over time, the belief in child protection as an effective system for the solution of bad parenting and behavioural problems of children seems to behave like the economy: a cyclical movement of ups and downs, with sometimes a deep crisis, accompanied by major fluctuations in the demand for and the supply of child protection measures (see Fig. 14.1).

During the late 1960s and 1970s, a dramatic downward trend showed a historically low belief in the effectiveness of child protection, both among

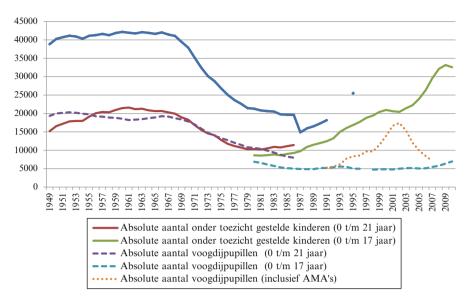


Fig. 14.1 Minors under child protection measures, 1949–2010 (Source: Dekker et al. 2012, Part 1, p. 83)

politicians – for them also a justification for cutting budgets in times of economic crises – and among workers in the field. Numerous reports tell that child protection was in crisis with work satisfaction diminishing, pride of the job fading away, and in those roaring 1960s child protection as such seen as an act against individual autonomy and democratization. Also professionalization, so applauded since the late 1940s, was criticised by the shop floor and by the Ministry of Justice, for many years major force behind professionalization. According to a report on children's homes on the years 1964-1968 by the Directorate for Child Protection of the Ministry of Justice, a staff operating "intellectually on a high level" placed great demands on the group leaders and could diminish an "atmosphere of hominess, cosiness and intimacy", that was aimed for (Directie Kinderbescherming 1972, p. 60-61). Even the Minister of Justice himself, the Christian-Democrat Job de Ruiter, at the occasion of the 75 years of child acts celebration ceremony in 1980 warned against continuous professionalization, for many years stimulated and even enforced by his Ministry, that "might make the distance between the child protection workers and the interested citizen greater than desired" (De Ruiter 1980, pp. X–XI).

Notwithstanding all those critical remarks, the call for professionalization, together with a stronger orientation on the behavioural and medical sciences, did not stop. On the contrary, professionalization only intensified and remained being seen as the only solution for the problems diagnosed. An example is the crisis on the Heldring-homes for girls. This Orthodox-Protestant institution, with a history going back to 1848 and one of the oldest re-education homes in Europe, in the 1970s had to deal with decreasing numbers of children resulting in financial pressure from the

Ministry of Justice. To cope with this situation, the Heldring-homes opted for the position of a national top institute for the treatment of extremely difficult behaviour of girls.

This ambition resulted in a struggle for power between two disciplines, namely child and youth psychiatry, already with a rather high reputation, and orthopaedagogics, the then rising pedagogical discipline for special education. The disciplines were represented by the two key figures of the institution, the childand youth psychiatrist Theo Finkensieper, son of a former President of the institution and grown up in the president's house on the institution's territory, and the pedagogue Wim ter Horst (1970, 1973). Both men lived on the institution's territory, not far from each other. The struggle between them took several years and caused a split between the personnel with adherents of Finkensieper and Ter Horst. Eventually, Finkensieper emerged victorious, backed by his Supervisory Board and by an investigation from 1974 on possible medical and pharmaceutical incidents. With child psychiatry triumphing, Ter Horst moved to Leiden University to become a professor of special education (Dekker et al. 2012).³

14.5 Professionalization Since the Late 1980s: Restoring the Confidence in Child Protection

With the gradual return of belief in the effectiveness of child protection, in the 1980s professionalization became even stronger based on behavioural and medical sciences and on new management styles, this notwithstanding the fact that in those years the volunteer seemed to make a comeback. But reality turned out differently: the Boards of Child Protection professionalized further, the tasks of the juvenile judge were restricted in line with the professionalization within the courts, the diversification of jobs in residential institutions increased, and finally academic professions in child care became more numerous.

Although in the 1970s the volunteer was almost gone, not everybody was happy with that. In 1978, it was stated in an article entitled 'Volunteers back again in child care' that "from all sites, a revaluation of the volunteer is being pleaded", for volunteers could take over part of the work of professionals and complete each other (De Brabander 1978, pp. 193, 194, 197). Also, a practice oriented book on the volunteer in child care was published (Hoekendijk 1981), and in 1989 a professional journal, *Tijdschrift Jeugdhulpverlening en Jeugdwerk*, published a special issue on the theme. Indeed, volunteers experienced somewhat a comeback, but soon became frustrated because of only being permitted to fulfil orders given by

³ For the rest, in 1991, almost 20 years after his rise to power, Finkensieper was found guilty for sexual abuse of several girls staying in the Heldring Institutions and had to go to jail for several years. It has been suggested in confidential sources that abuse already started during the above described power struggle, thus from the early 1970s (Dekker et al. 2012).

professionals. They asked for "significant and attractive work". Professionals asked for a volunteer policy (Bos and Van den Bos 1989, p. 25) to teach professionals how to cooperate with volunteers (Bos and Derksen 1989, p. 51). Strong voices pro the volunteer were indeed available. The volunteer, so was written by G. Brouwer, was again "in the picture" because of the need for "competencies that were less appropriate for professionals". He referred to the activity of communicating with families and parents on a more equal level than was possible by professionals. According to him, the "trained volunteer" was "an indispensable supplement" on child care. Brouwer asked himself if the movement "to professionalization by banning the volunteer" was "not gone too far" (Brouwer 1998, 23; cf. Van Unen 1999). Those voices and strong desires pro volunteer, however, clashed with the formal regulations. Although "twelve volunteers did a fantastic job" in child care in the city of Maastricht, they had to cease their work because it was forbidden by the Board for Child Protection and the Ministry of Justice because the volunteers did work that according to the Ministry could only be done by professionals (Meijers 2002, p. 15). Thus, working with volunteers turned out to become no more than a temporary flickering, with the trend towards further professionalization only becoming stronger. Karin van Gorp, coordinator of youth policy at the Ministry of VWS, emphasized that youth care is a profession that needs continuous training, and not an activity go be done by everybody (Van Gorp 2007, p. 52). This work, to be considered as a profession with its own ethics and identity (Meurs 2008), needed even more professionalization, for youth care "has difficulty in making clear what their effectivity is" (Monasso 2010; cf. Overwater 1955!).

The history of the Boards for Child Protection fits this development. Since the 1970s, most work done by the Boards and by Family Guardians was done by trained experts. In 1980, more than 80% of the Boards for Child Protection social workers were graduated from Schools for Social Work, with the number of volunteers decreasing dramatically. While in 1961 the policy of the Ministry of Justice was to have 1 professional directing 55 volunteers, in 1986 the 200 volunteering family guardians formed a minority against 692 professionals (Directie Kinderbescherming 1965, 1987). Nine years later, in 1995, the board itself, traditionally consisting of volunteers from the city elite and responsible for the Board's decisions, was removed. From then, the Board only consisted of professionals (Van der Bij et al. 2006; Dekker 2007), among them an increasing number of academic psychologists and pedagogies, next to some legal specialists (Bartels 1980).

A very special professionalization took place with the tasks of the juvenile judge. From 11 November 1995, the juvenile judge no longer supervised the implementation of child protection measures, one of her main tasks. She now did what judges normally do, namely judging cases and imposing measures. Supervision of the implementation of those measures became the responsibility of the Family Guardians (Dekker 2007). Juvenile judges were divided on this, as they were from the start in 1922. While J. Bac hoped that the new regulations could make the juvenile judge a stronger specialism (Bac 1998a, p. 95; Bac 1998b; cf. Weijers 2001, 2005), others pointed out that the ideal juvenile judge – as formulated by judge Dorhout in

the 1950s, see above – should combine imposing measures and supervising its implementation. Because of the new organisation model of the judicial system, making it a carousel with judges working some years as juvenile judge before working on another judicial specialisms, a judge was no longer than a couple of years a juvenile judge. More professionalized as a judge, and thus only imposing measures, he also lost part of his professional knowledge, namely the specific and long term expertise on children and families at risk.

Professionalization in residential institutions became the standard. Much attention in the professional journals went to the group leader, core job in the child care, initially fulfilled by discharged soldiers, and until the 1940s only sporadically exercised by professionals (Dekker 1985). In 1988, however, 58 % of the group leaders were graduated from a School for Social Work (van der Ploeg and Scholte 1988) and this higher level of education was asked for since the 1970s (Bras 1973; cf. Hoefnagels et al. 1970; Verhoeff 1974, 7; cf. Goes 1974, p. 62; Drillich 1975, pp. 403-408; de Kort and Stoeiers 1977). Professionalization in residential institutions for child care increasingly became based on criteria used in the medical professions, with much attention for basic competencies and ethical dilemmas. Professional journals wrote about what they saw as a change within youth care from supply to demand, this notwithstanding the reality of state forced child protection, which differs from a demand by children or parents. A comparison was made with the much higher reputed mental health care, for ore resembling to health care could raise the rather low reputation of child care (De Jong 2000). In order to reach this higher level, workers in residential institutions had to learn to more focus on the individual (van Burik et al. 2001). Child protection should become more demand oriented, professional, and effective (Van der Steege 2003).

Also the influence of academic professions such as child psychiatrists, psychologists - a popular book for personnel in children's homes and used in courses written by the psychologist M.J.A. van Spanje (1957 – and ortho-paedagogues, involved in child protection, increased. In the 1950s, psychiatrists or psychologists almost never were employed by residential institutions. They only gave advice in specific cases, not on a regularly base. According to Koekebakker in his critical report on residential education, those advices did not have much impact with the director of the institution being not very enthusiastic, and the advices remaining without much effect (Koekebakker and Werkgroep Gestichtsdifferentiatie 1959). On the earlier mentioned residential institution for boys Nederlandsch Mettray, testing in the early 1950s was by the Gelders Psychologisch Instituut, as was the case with psychiatric advice (Report on 1951). The Mettray management in a contribution in the Yearly Report entitled 'Eat more Freud', commented on Freudianism, then dominating Dutch psychiatry, by observing that issues like "a practical joke, a human weakness or a not very tactful approach" now have to be understood out of "obsessive acts", or by using other Freudian ways of explanation (Report on 1953, 10). But soon, the number of and the impact of those experts increased, both in residential institutions, as can be seen in the reports of the Section Child Protection of the Ministry of Justice, and, from the early 1990s, in the Boards of Child Protection. The changing contents of the Handbook voor de kinderbescherming

[Textbook for child protection] mirrors this development. While the first edition from 1951 only contained a chapter on the psychiatrist, already in 1959 chapters on the 'orthopedagogue', the psychologist, and the sociologist were added (Dimmendaal 1998).

From 1993, those academic professions became recognized and protected in a legal Register under the Law on Professions in Individual Health Care, the so-called BIG-register, apart from being recognized and protected by professional societies, the NIP [Dutch Institute for Psychologists] and the NVO [Dutch Society for Educationalists]. This fits the classic theory on professions. According to Nelson Freidson, a profession is an "occupation that controls its own work, organized by a special set of institutions sustained in part by a particular ideology of expertise and service" (Freidson 1994). In other words, professions complying with those criteria (1) manage the supervision of their profession by inter-vision and by Commissions of Appeal within their professional society. (2) protect their work by (legal) regulations of their training so that non-trained and not graduated people are not allowed to do their activities, (3) maintain a collective body of knowledge of theories and concepts, and of instruments, tests, and methods, laid down in textbooks, other standard works, and discussed and developed in specific journals and on congresses and symposia, finally (4) maintain a professional network with a specific group culture. The academic professionalization of child protection and youth care was welcomed in the professional journals (Willemse and Rijsterborgh 1982; Muller 1986; Huizinga 1986; Hofman 1987). Child protection needed this expertise (Twijnstra 1989), needed psychotherapists (Verheij 1999), together with legal expertise because of the implementation of the UN Declaration of the Rights of the Child (Veerman 2009; Dekker 2011).

At the same time, it seems that legal regulations were not only protecting professionals (Hutschemaekers and Neijmeijer 1998, 48, 93, 306), but also "made the professionals more dependent on policy makers, employers, managers, insurance companies, and clients", which resulted in decreasing autonomy. For the increasing emphasis on evidence-based resulted in "rationalisation, scientification, and standardization of care", and increasing accountability of professionals (Oosterhuis and Gijswijt-Hofstra 2008, pp. 1076-1078; cf. Schnabel 1996, p. 153; Van der Laan 2002, p. 50). According to the health philosopher K. Horstman, professionalization of child protection and youth care has changed from trusting people in their expert role to trusting "figures, instruments, statistics, standards and explicitly procedural methodical rules". This resulted in "pressure of responsibility in the public domain" and "depersonalization and anonymization of expertise", or, "the more un-personal, the better!" (Horstman 2004, p. 144). Kolen concluded that this new wave of professionalization resulted in "loss of professionalism and of quality of care" because of loss of autonomy of the professional (Kolen 2005, p. 137; cf. Meurs 2008). According to Van der Lugt and Wienke, bureaucracy had to diminish in order to give professionals more space. While management and directions of vast child protection consortia because of mergers between individual institutions started again and again projects and introduced methods "because they thought this hype could not be missed, and also to get certification for their institutions", quality should not be following those projects and methods, but "be accountable to the own profession, politics, financiers, and the customer [sic]" (van der Lugt and Wienke 2005, p. 204). According to Horstman, managers should not become "neutral vehicles" of government policy, for "seemingly inefficiency within an organisation for child protection eventually can result in effectiveness" (Horstman 2004).

Already in an article from 1989, M.H. Twijnstra, partner of the organisation and advice group GITP, wrote about that focus on new management by sketching the past in a very negative way. In the past, so Twijnstra, the manager, then mentioned Director, was "focused on the very work of re-education of the children, did possess major educational experience" and knew the work "from inside". He contributed to the "methodical development of the profession of child protection, and was oriented on the child" while "organisational conditions for an optimal stay in the children's home" were subordinate with respect to the content of the work. But the management discourse has changed. Now, the director is a manager-entrepreneur instead of a "Pater Familias" because of the "increasing distance from the direct work". The manger "directed on main lines" and "put out a strategy", this making the "management the pivot of quality thinking", with "professionalization being part of that" (Twijnstra 1989, p. 48). This professionalization of management, however, was considered by psychologists, pedagogues, and psychiatrists as a danger for their professional autonomy and quality.

14.6 Conclusion

Before the Second World War, volunteers and paid but not certified experts, with the exception of the juvenile judge, dominated child protection. After the War, the standard became the well-trained professional. There developed a strong belief in the magic of professionalization and of science based diagnosis and treatment. This transformation of child protection was "a development from intuitive improvisation based on common sense to a more methodical approach through diagnosis, a plan of treatment, and systematic evaluation" (Alewijn 1980, p. 83). Child protection followed neighbouring sectors like mental health care (Oosterhuis and Gijswijt-Hofstra 2008, p. 671), where certified personnel became the standard earlier (Klijn 1995; Westhoff 1996). The transformation of child protection into a fully professionalized system took place in a sector undergoing frequently major crises and criticism both from inside and from outside. The solution proposed always was changing the system by more professionalization and orientation on medical and behavioural sciences, even during the most serious crisis of Dutch child protection in the 1970s. Paradoxically, this ongoing process of professionalization did not automatically result in more power for the professionals themselves. Increasingly the diagnostic and therapeutic strategies to be used were no longer the choice of the professionals themselves alone, but of their managers, now leading vast consortia of child care, of policy makers, and, recently, also assurance companies.

References

- Alewijn, A. A. (1980). *De Instellingen'*, 75 jaar kinderwetten 1905–1980. Zwolle: Tjeenk Willink. Bac, J. R. (1998a). De kinderstrafrechter 75 jaar: vitaal of terminaal?! In J. R. Bac (Ed.), *De Kinderrechter 75 jaar: reden tot vreugde!?* Deventer: Kluwer.
- Bac, J. R. (1998b). Kinderrechter in strafzaken. Evolutie en evaluatie. Deventer: Gouda Quint.
- Bartels, J. A. C. (1980). Kritiek, vertwijfeling en bezinning. De periode van 1955 tot 1980. In J. A. C. Bartels (Ed.), 75 jaar kinderwetten 1905–1980. Zwolle: Tjeenk Willink.
- Bec, C., Duprat, C., Luc, J.-N., & Petit, J.-P. (Eds.). (1994). *Philanthropies et politiques sociales en Europe (XVIII^e-XX^e siècles)*. Paris: Anthropos.
- Becker, P. (2005). Dem Täter auf der Spur. Eine Geschichte der Kriminalistik. Darmstadt: Primus Verlag.
- Becker, P., & Dekker, J. J. H. (2002). Doers: The emergence of an acting elite. In: J. J. H. Dekker & P. Becker (Eds.), Doers: Philanthropists and bureaucrats in the 19th century: Views on education and society, communication, collaboration. Special issue of Paedagogica Historica, 38(2/3), 427–432.
- Bos, N., & van den Bos, C. (1989). De verhouding tussen beroepskrachten en vrijwilligers in het jeugd- en jongerenwerk. *TJJ*, *1*, 22–25.
- Brabander, B. (1978). Vrijwilligers terug in de kinderbescherming. SJOW, 6, 192–197.
- Bras, J. (1973). De opleiding van de groepsleider. Een bijdrage tot ontwikkeling van orthopedagogische residentiële hulpverlening. Lochem: Tijdstroom.
- Brouwer, G. (1998). Vrijwilligerswerk in het jeugdbeleid: overwaarde en overwaarden. *Nederlands tijdschrift voor Jeugdzorg*, 3, 22–23.
- Carlier, C. (1994). La prison aux champs. Les colonies d'enfants délinquants du nord de la France au XIXe siècle. Paris: Les Éditions de l'Atelier.
- Commissie tot Reorganisatie van de Voogdijraden. (1949). *Rapport van de Commissie tot Reorganisatie van de Voogdijraden* [Commissie E.A.M. Lamers] Den Haag: Nationaal Bureau voor Kinderbescherming.
- Cunningham, H., & Innes, I. (Eds.). (1998). Charity, philanthropy and reform. From the 1690s to 1850. New York: St. Martin.
- Dassen, P. (1999). De onttovering van de wereld. Max Weber en het probleem van de moderniteit in Duitsland 1890–1920. Amsterdam: Van Oorschot.
- de Jong, C. (2000). Functiedifferentiatie in de jeugdzorg. *Nederlands tijdschrift voor Jeugdzorg*, 2, 18–25
- de Kort, N., & Stoeiers, J. (1977). Opleidng voor 'residentieel agoog': waaraan begin ik in vredesnaam? *SJOW*, 5, 24–30.
- de Ruiter, J. (1980). Woord vooraf. In J. A. C. Bartels, J. E. Doek, L. van der Sijs, & G. Delfos (Eds.), 75 jaar kinderwetten 1 december 1905–1980 (pp. IX–XI). Zwolle: Tjeenk Willink.
- de Vries, A. D. W., & van Tricht, F. J. G. (Eds.). (1905–1907). Geschiedenis der wetgeving op de misdadige jeugd (Wetten van 12 Febr. 1901 (563) en 12 Febr. 1901 (564). Verzameling van regeeringsontwerpen, gewisselde stukken, gevoerde beraadslagingen enz. Haarlem: Tjeenk Willink.
- Dekema, H. J., Drillich, P. A., Houben, P., Maes, J., & Raessens, M. J. M. (1968). De sociale academies en de opleiding voor het inrichtinswerk. *Tijdschrift voor Maatschappelijk Werk*, 22, 52–58.
- Dekker, J. J. H. (1985). Straffen, redden en opvoeden. Het ontstaan en de ontwikkeling van de residentiële heropvoeding in West-Europa, 1814–1914, met bijzondere aandacht voor Nederlandsch Mettray. Assen: Van Gorcum.
- Dekker, J. J. H. (1990). The fragile relation between normality and marginality. Marginalization and institutionalization in the history of education. *Paedagogica Historica*, 36(2), 13–29.
- Dekker, J. J. H. (2001). The will to change the child. Re-education homes for children at risk in nineteenth century western Europe. Frankfurt am Main: Peter Lang.

- Dekker, J. J. H. (2002). Demystification in the century of the child. The conflict between romanticism and disenchantment in (residential) youth care from the 1830's to 2000. In E. J. Knorth, P. M. van den Bergh, & F. Verhey (Eds.), *Professionalization and participation in child and youth care. Challenging understandings in theory and practice* (pp. 27–48). Burlington: Ashgate.
- Dekker, J. J. H. (2007). Opvoeding onder toezicht. De Nederlandse kinderwetten in de eeuw van het kind. In: *Honderd jaar kinderwetten 1905–2005* (pp. 10–33). Den Haag: Ministerie van Justitie.
- Dekker, J. J. H. (2010). Educational ambitions in history. Childhood and education in an expanding educational space from the seventeenth to the twentieth century. Frankfurt am Main: Peter Lang.
- Dekker, J. J. H. (2011). The century of the child revisited. In M. Freeman (Ed.), *Children's rights: Progress and perspectives. Essays from the International Journal of Children's Rights* (pp. 477–495). Leiden: Martinus Nijhoff Publishers / Koninklijke Brill NV.
- Dekker, J. J. H., & Grietens, H. (2015). Sexual abuse of children in foster care and the history of Dutch child protection: actors in fading spotlights. In J. Sköld & S. Swain (Eds.), *In the midst of apology: professionals and the legacy of abuse among children in care* (pp. 127–136). Sydney: Palgrave Macmillan.
- Dekker, J. J. H., & Lechner, D. M. (1999). Discipline and pedagogics in history. Foucault, ariès, and the history of panoptical education. *The European Legacy*, 4, 37–49.
- Dekker, J. J. H., et al. (2012). Jeugdzorg in Nederland, 1945–2010. Resultaten van deelonderzoek 1 van de Commissie-Samson: Historische schets van de institutionele ontwikkeling van de jeugdsector vanuit het perspectief van het kind en de aan hem/haar verleende zorg (Part I, Text, 413 pp.; Part II, Appendices, 219 pp). Groningen: Rijksuniversiteit Groningen.
- Dimmendaal, G. (1998). Heropvoeding en behandeling, meisjes in Huize de Ranitz Groningen 1940–1967. Assen: Van Gorcum.
- Directie Kinderbescherming. (1961). Verslag over de jaren 1950–1960. Den Haag: Staatsuitgeverij. Directie Kinderbescherming. (1965). Verslag over de jaren 1961–1962. Den Haag: Staatsuitgeverij. Directie Kinderbescherming. (1972). Verslag over de jaren 1964–1968. Den Haag: Staatsuitgeverij. Directie Kinderbescherming. (1973). Verslag over de jaren 1969–1970. Den Haag: Staatsuitgeverij. Directie Kinderbescherming. (1976). Verslag over de jaren 1971–1974. Den Haag: Staatsuitgeverij.
- Directie Kinderbescherming. (1987). Verslag over de jaren 1985–1986. Den Haag: Staatsuitgeverij. Doek, J. E. (1972). Vijftig jaar ondertoezichtstelling. Schets van ontstaan en ontwikkeling van een maatregel van kinderbescherming. Zwolle: Tjeenk Willink.
- Dorhout, B. (1955). Taak en positie van de kinderrechter. In: *Vijftig jaar kinderwetten. geschriften van de Nationale Federatie de Nederlandse Bond tot Kinderbescherming* (pp. 113–121). Alphen aan den Rijn: Samson,.
- Drillich, P. A. (1961). Is het beroep van inrichtingsopvoeder geestelijk hygiënisch verantwoord? De Koepel, 14, 488–500.
- Drillich, P. A. (1975). Opleidingen inrichtingswerk bezien via hun literatuurlijsten. *SJOW*, *3*, 403–408.
- Dupont-Bouchat, M.-S., Pierre, E., Fecteau, J.-M., Trépanier, J., Petit, J.-G., Schnapper, B., & Dekker, J. J. H. (2001). Enfance et justice au XIX^e siècle. Essais d'histoire comparée de la protection de l'enfance 1829–1914, France, Belgique, Pays-Bas, Canada. Paris: Presses Universitaires de France.
- Enschedé, C. J. (1968). Rapport van de Commissie Kinderrechtspraak. Amsterdam.
- Farge, A. (1986a). Marginaux. In A. Burguière (Ed.), *Dictionnaire des Sciences Historiques* (pp. 436–438). Paris: Presses Universitaires de France.
- Farge, A. (1986b). La vie fragile. Violence, pouvoirs et solidarités à Paris au XVIII^e siècle. Paris: Hachette.
- Fecteau, J.-M., & Harvey, J. (Eds.). (2005). La régulation sociale entre l'acteur et l'institution. Pour une problématique historique de l'interaction/Agency and institutions in social regulation: Towards an historical understanding of their interaction. Sainte Foy: Presses de l'Université du Québec.

Forlevisi, L., Pottier, G.-F., & Chassat, S. (Eds.). (2005). Éduquer et Punir. La colonie agricole et pénitentiaire de Mettray (1839–1937). Rennes: Presses Universitaires de Rennes.

- Foucault, M. (1975). Surveiller et punir. Naissance de la prison. Paris: Gallimard [English translation: Discipline and Punish (Middlesex: Penguin Books, 1977].
- Freidson, E. (1994). *Professionalism reborn. Theory, prophecy, and policy*. Cambridge: Polity Press.
- Goes, B. (1974). Maxima cum laude. SJOW, 2, 62-97.
- Groenveld, S., Dekker, J. J. H., Willemse, T. R. M., & Dane, J. (Eds.). (1997). Wezen en boefjes. Zes eeuwen zorg in wees- en kinderhuizen. Hilversum: Verloren.
- Hoefnagels, G. P., Mulock Houwer, D. Q. R., & Peper, B. (1970). *Een nieuw plan voor de kinderbescherming*. Meppel: Boom.
- Hoekendijk, L. (1981). De vrijwilliger in de hulpverlening. Deventer: Van Loghum Slaterus.
- Hofman, A. J. (1987). Meer praktijk in de practicum team begeleiding voor de orthopedagoog. *Tijdschrift voor Jeugdhulpverlening SJOW*, 15, 50–54.
- Horstman, K. (2004). Managers en uitvoerenden mogen geen neutrale vehikels zijn van overheidsbeleid. *Nederlands Tijdschrift voor Jeugdzorg*, *3*, 142–149.
- Huizinga, J. (1986). Teambegeleiding, een must voor de orthopedagoog. SJOW, 14, 326-328.
- Hutschemaekers, G., & Neijmeijer, L. (1998). Beroepen in beweging. Professionalisering en grenzen van een multidisciplinaire GGZ. Utrecht: Bohn Stafleu Van Loghum.
- Jaarverslagen Nederlandsch Mettray on 1951–1954. Available on the institution.
- Klijn, A. (1995). Tussen caritas en psychiatrie. Lotgevallen van zwakzinnigen in Limburg 1879–1952. Hilversum: Verloren.
- Koekebakker, J., & Werkgroep Gestichtsdifferentiatie. (1959). *Verzorging en opvoeding in kindertehuizen* (Rapport van de Werkgroep Gestichtsdifferentiatie). Den Haag: Nederlandse Federatie voor Kinderbescherming.
- Kolen, M. (2005). Autonomie in de jeugdzorg: vrucht van de relatie. *Nederlands tijdschrift voor Jeugdzorg*, 3(4), 133–137.
- Komen, J. (1949). Opleiding van het personeel der Rijksopvoedingsgestichten en Tuchtscholen. *Tijdschrift voor Maatschappelijk Werk*, *3*, 381–383.
- Lindmeier B. (1998) Die Pädagogik des Rauhen Hauses. Zu den Anfängen der Erziehung schwieriger Kinder bei Johann Hinrich Wichern (Bad Heilbrunn).
- Meijers, M. (2002). Begeleide omgang: vrijwillig of in justitieel kader? *Nederlands Tijdschrift* voor Jeugdzorg, 1, 15–18.
- Meurs, P. (2008). De samenhang tussen structuurdenken en professionaliteit. *Jeugdbeleid*, 2, 127–132.
- Monasso, T. (2010). Professionalisering in jeugdzorg leidt tot rust en regelmaat. *Jeugdbeleid*, 1, 35–40.
- Muller, L. (1986). De zelfstandige pedagoog in de eerste lijn. SJOW, 14, 291–294.
- N.B.K. (1950). Selectie, opleiding en rechtspositie van het opvoedkundig personeel, werkzaam in inrichtingen voor kinderbescherming. *Tijdschrift voor Maatschappelijk Werk*, 4, 138—140.
- Oosterhuis, H., & Gijswijt-Hofstra, M. (2008). Verward van geest en ander ongerief. Psychiatrie en geestelijke gezondheidszorg in Nederland (1870–2005). Houten: Bohn Stafleu van Loghum.
- Overwater, J. (1948). Kinderrechtspraak en kinderbescherming. Alphen aan den Rijn: Samsom.
- Overwater, J. (1949). De geschiedenis van de Nederlandsche Bond tot Kinderbescherming 1899–1947. Amsterdam: De Nationale Federatie de Nederlandsche Bond tot Kinderbescherming.
- Overwater, J. (1951). Rapport van de commissie ingesteld met het doel van advies te dienen over de vraag in welke richting het rijkstucht- en opvoedingswezen en in verband daarmede het kinderstrafrecht zich zullen moeten ontwikkelen. Den Haag: Staatsdrukkerij- en Uitgeverijbedrijf.
- Overwater, J. (1955). Rede van de voorzitter van de Nationale Federatie 'De Nederlandse Bond tot Kinderbescherming'. In: *Toespraken gehouden ter herdenking van de gouden kinderwetten op*

- 1 december 1955, in de Ridderzaal te 's-Gravenhage (pp. 15–23).'s Gravenhage: Ministerie van Justitie.
- Petit, J.-G. (1990). Ces peines obscures. La prison pénale en France 1780–1875. Paris: Fayard. Poovey, M. (1995). Making a social body. British cultural formation, 1830–1864. Chicago: The University of Chicago Press.
- Prins, P. G. (1949). Over Kinderbescherming en Opleiding. *Tijdschrift voor Maatschappelijk Werk*, 3, 53–55.
- Schnabel, P. (1996). Het jonge en het oude gezicht van de psychiatrie. In C. F. A. Milders (Ed.), *De januskop van de psychiatrie* (pp. 151–159). Assen: Van Gorcum.
- Siegert, B., & Vogl, J. (Eds.). (2003). Europa. Kultur der Sekretäre. Zürich: Diaphanes.
- Tames, I. (2009). Besmette jeugd. De kinderen van NSB'ers na de oorlog. Amsterdam: Balans.
- ter Horst, W. (1970). Ontwarring en ordening. Ervaringen met meisjes in de zeer moeilijke opvoedingssituatie in de afdeling Orthopedagogiek van de Heldring-stichtingen te Zetten (Bet.). Kampen: Kok.
- ter Horst, W. (1973). Proeve van een Orthopedagogisch Theorie-Concept. Kampen: Kok.
- Twijnstra, M. H. (1989). Kwaliteit en professionaliteit in de jeugdhulpverlening. TJJ, 3, 44–51.
- van Burik, A., Kayser, T., & van de Mortel, M. (2001). Vraaggestuurd werken vereist vier basiscompetenties. *Nederlands tijdschrift voor Jeugdzorg*, 6, 288–291.
- van den Bos, C., & Derksen, G. (1989). Beroepsopleidingen en vrijwilligerswerk. *TJJ*, 1, 49–51.
- van der Bij, I., Willemse, T., Dane, J., & Lechner, D. (Eds.). (2006). Honderd jaar kinderbescherming, uitgave ter gelegenheid van het jubileum van de Raad voor de Kinderbescherming en de Kinderwetten (1905–2005). Amsterdam: Uitgeverij SWP.
- van der Laan, G. (2002). Vraagsturing, professionaliteit en burgerschap. *Sociale Interventie*, 11, 44–051.
- van der Lugt, H., & Wienke, D. (2005). De jeugdzorginstelling als kwalitaria. *Nederlands tijdschrift voor Jeugdzorg*, 5, 204–207.
- van der Ploeg, J. D. (2000). Een eeuw tehuizen: van idealisme naar professionalisme. In: R. de Groot (red.), *Het kind van de eeuw: het kind van de rekening? Tijdschrift voor Orthopedagogiek*, 38: 69–88.
- van der Ploeg, J. D., & Scholte, E. M. (1988). Tehuizen in beeld. Leiden: WOJ.
- van der Steege, M. (2003). Vraaggericht werken en anders leren van professionals. *Nederlands tijdschrift voor Jeugdzorg*, 6, 283–289.
- van Gorp, K. (2007). Samen op weg naar een volwassen, professionele jeugdzorg. *Jeugdbeleid*, 1, 51–53.
- van Spanje, M. J. A. (1956). Disposities tot homo-sexueel gedrag binnen het opvoedingswerk van inrichting of gesticht. *Maandblad geestelijke volksgezondheid*, 11, 161–173.
- van Spanje, M. J. A. (1957). Het kind in de inrichting. Arnhem: Van Loghum Slaterus.
- van Spanje, M. J. A. (1961). Over leiding, begeleiding en supervisie van de groepsleider in het internaat. *Mozaïek*, *12*, 248–264.
- van Spanje, M. J. A. (1976). Kind en pleeggezin. Gedachten en beschouwingen (2e herz. Dr.). Arnhem: Van Loghum Slaterus.
- van Unen, A. (1999). Cliëntenbeleid en medewerkers. *Nederlands tijdschrift voor Jeugdzorg*, 6, 22–27.
- Veerman, P. (2009). Advocaten bij verhoor jongeren is eigen métier. Jeugdbeleid, 3, 133-135.
- Verheij, F. (1999). Het einde van de psychotherapeut. *Nederlands tijdschrift voor Jeugdzorg*, 3, 20–23.
- Verhoeff, J. (1974). Hogere beroepsopleiding IW: ook hoger funktiebereik? SJOW, 2, 7.
- Wax, M. L. (1991). Magic, rationality and Max Weber. In P. Hamilton (Ed.), Max Weber: critical assessments (Vol. 2, pp. 59–65). London: Routledge [or.: Kansas Journal of Sociology, 1967 3, 12–19].
- Weber, M. (1982, or. 1919). Wissenschaft als Beruf. In: J. Winckelmann (ed.), Gesammelte Aufsätze zur Wissenschaftslehere (pp. 582–613), Tübingen: J.C.B. Mohr/Paul Siebeck.

206 J.J.H. Dekker

Weijers, I. (1999). De verantwoordelijkheidspedagogiek van Mulock Houwer. *Nederlands tijdschrift voor opvoeding, vorming en onderwijs, 15*, 82–102.

- Weijers, I. (2001). De pedagogische taak van de kinderrechter. In P. Smeyers & B. Levering (Eds.), *Grondslagen van de wetenschappelijke pedagogiek. Modern en postmodern* (pp. 245–260). Rotterdam: Boom.
- Weijers, I. (2005). De pedagogische uitdaging van het jeugdstrafrecht. Utrecht: SWP.
- Werkgroep Stage. (1955). De samenwerking tussen inrichtingen voor kinderbescherming en opleidingscentra. *Tijdschrift voor Maatschappelijk Werk*, 9, 3–9.
- Westhoff, H. (1996). Geestelijke bevrijders. Nederlandse katholieken en hun beweging voor geestelijke volksgezondheid in de twintigste eeuw. Nijmegen: Valkhof Pers.
- Willemse, T., & Rijsterborgh, H. (1982). De staffunctionaris in het tehuis. SJOW, 10, 136-137.

Chapter 15 It's All About Interpretation: Discourses at Work in Education Museums. The Case of Ypres

Marc Depaepe and Frank Simon

Our years of work as the scientific advisers to the Stedelijk Onderwijsmuseum (Municipal Museum of Education) in Ypres, granted a number of experiences that we can easily link to the subject of this meeting of the research community. History is, as Foucault once said, a pursuit that can best be characterised as the establishment of a 'discourse on discourses' – which we have re-translated in our theoretical, historiographical and methodological reflections (with a wink for de Certeau) as an 'interpretation of interpretation'. It is from this context that the certainly interesting question of whether from a vulgarising and popularising perspective, in a museum, which is forced to live off its popularity (i.e. the number of visitors), different or precisely the same interpretation patterns arise in as in a scientific (i.e. university or academia) environment.

As we have indicated elsewhere (Depaepe 2012), the history of the history of education is characterised by the continuous abandonment of the 'educationalised' perspective that arose in the field at the end of the nineteenth century in the teacher training programmes (and later in that of professional educators). This was also applicable to the research done on this discipline, which, from the beginning of the 1960s and 1970s sought a connection with the trends in the general, and more specifically social and later cultural historiography. This historizing, on the other hand, did not take occur everywhere within the education of this discipline. Here, the same or similar educational objectives on the scope of the history of education often remain in force. This history must, for example, continue to prompt the understanding of the elevated task that teachers faced in their daily labours, or the

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understanding of the high social duty of the school. Whoever propounded a more critical, let alone demythologising or demystifying vision within this context were faced, certainly in Ypres, with several 'pedants', who believed that the museum of education must not, cost what cost, turn against the institute of education. After all, the majority of the visitors were pupils and their teachers....

A second tension was unavoidably revealed that also manifested itself in the history and museum didactics, namely the almost constant call for popularising as these as well as for forming links with contemporary points of identification. In theory, this probably wouldn't be such a problem – up to a certain point, history is always written from a presentistic perspective – if it were it not for the fact that the tendency has developed of seeking to avoid the complexities of the past as much as possible. Due to this, theoretical insights, based on social-historical and culturehistorical analyses of the structural processes that are active in the history of education, naturally run into difficulties. They are not only difficult to visualise, but moreover stand in the way of a nostalgic or folklore approach, an approach to which most older generations of teachers are very partial. Here, attractive is often translated as easily understandable, which leads to simple story lines that make one automatically think of chronicle-like websites. We have unfortunately seen this positivistic tendency for a number of years within the position of the already barely open US history of education. It appears that there is only room for 'acts and facts' in the neo-liberal market economy, which not only results in the fabulous paradox of post-modernism, but also in the frightening thought that an interpretationless and thus seemingly objectivistic historiography à la von Ranke can (once again) be linked up to any sort of political-ideological discourse.

This thought becomes even more frightening in association with the perhaps not so innocent craze of 'commemorative education', in which the normative content of the accompanying history-making machine can hardly not be recognized (Van Nieuwenhuyse et al. 2015). It is obvious that contemporary interests play a part in this – as is the fact that these interests are easily projected on the past. The many commemorations on the occasion of the centenary of World War I cannot be isolated from their often political ulterior motives; but this is something that we are long accustomed to in the context of historiography. Participation in discussions about the War, even 100 years after the fact, presents little difficulty, in Ypres also, which holds the historical world heritage of the battlefields and massacres of 1914–1918. The history of the Municipal Museum of Education is also complexly linked to that of the In Flanders Fields Museum (IFFM). It is a widely known fact that this museum has been a major attraction from the very beginning, to far beyond the national borders, among other things because to the explicit utilisation of interactive ICT. Whether or not this conscious decision for technology has ultimately promoted the scientific-critical calibre of the content is certainly also the question. It sometimes appears that it is primarily the form that determines the content and that this is accompanied by a possible degradation of the intellectual substance. This idea becomes even more prevalent in the context of the recent technological innovations at the IFFM, including apps for applying figures in 3D versions, which is a technique that happens to be very popular in the political world.

In any case, such technological novelties have only made the gap with the Museum of Education deeper. When the Museum of Education, which was a continuation of the occasional exhibition in 1980, opened its doors in 1990, this was still done in a wing of the Lakenhalle – itself an icon of the destruction of Ypres - as a counterpart of the then outdated war museum in the other wing of the same building. Halfway through the 1990s, it was decided that a new commemorative museum would be set up in the Lakenhalle, one that not only had a much more contemporary 'outlook' (with many interactive opportunities), but which had to propagate a revamped message of peace ("nooit meer oorlog"/"never again war") as the bottom line of the commemoration. There was a reason for Ypres being the City of Peace. All of this guaranteed that the Museum of Education had to move to another location – an empty church, where it opened its doors once again in 1998 (with, by the way, a more chronologically than thematically developed permanent exhibition). Since then, nearly all of the employees' attention has been commanded by the successful IFFM, not only for the preparation of all manner of thematic exhibitions, but also so that all the impassioned renovations were completed before the many celebrations planned for 2014. On the other hand, practically nothing was done in the Museum of Education concerning infrastructure or redesign, let alone in the areas of museology and/or the museum didactic. On the contrary: the fire of 26 May 2005, caused by maintenance work being done on the roof, put the museum in the public eye, but resulted, after a procedural battle with the contractor responsible, in everything having to be restored to its original state... there was also no mention of renovation or revamping at the reopening in October 2007.

Living next to a partner that was much stronger in terms of quality and quantity was not easy, but on the other hand, one cannot assume that this only resulted in disadvantages. It's true that the Museum of Education still does not have a curator and the majority of the activities carried out by the domestic staff goes to the IFFM, but the fact that this large museum has attracted many visitors (those purchasing a ticket also automatically gain entrance into the other three municipal museums in Ypres) has undoubtedly kept the Museum of Education alive. But that has not stopped the questioning still today, under the influence of higher political and economic interests, of whether or not it should still be allowed to function. The danger that the former Museum of Education, which has acquired some prestige in the international world of educational historiography, will be reduced to a sort of 'school class' within the greater entity of a single integrated municipal museum is far from unlikely.

This automatically brings us back to the core of our original question, namely, to what extent can the development of a museum of education be a permanent guarantee for a more scientific interpretation of the history of education, partly given the fact that the Ypres Museum of Education now has possession of an enormous mountain of documentation ranging from archive material, various printed sources to all manner of physical artefacts of school life (school benches, ink pots, writing slates, etc.). As an aside, a portion of the collection comes from the former 'Historical Education Collection' at Ghent University, which itself is not a glowing example of museum policy. The intention of the present contribution calls

for more reflection on the central question, primarily on the basis of our own experiences in the context of the Ypres Museum of Education. This reflection is not intended to be exhaustive.

15.1 Showing Off the 'Big Brother'? The Political-Pedagogic Discourse of the IFFM

The fact that Ypres is sparing no expense on the In Flanders Fields Museum in 2014 will come as no surprise to anyone. The remembrance of WWI is omnipresent and by all means there. It is precisely this museological dimension that interests us. With an eye to 'commemorating' the Great War, the 'IFFM Project' has in fact undergone a major facelift, for which the government has forked out quite a bit of money. In the anniversary edition of the VIFF Flash, the quarterly newsletter of the Friends of the IFFM – which published in the spring of 2014 (coincidentally?) its 50th edition (with, for the occasion, a lovely visual design) – leading politicians such as Paul Breyne, Honorary Governor of West Flanders province (and also the former Mayor of Ypres, Commissioner-General of the commemoration of WWI for Belgium and Honorary Chairman of the IFFM), looked back with pride on the many accomplishments since 1998 (VIFF 2014, 2). This same applies to the reflections of the then Minister in Charge, Geert Bourgeois (at the moment Vice-Minister-President of Flanders and Flemish Minister for Administrative Affairs. Local and Provincial Government, Civic Integration, Tourism and the Vlaamse Rand; in the meantime Minister-President of Flanders), who – not without pride – proclaimed that Flanders is prepared to receive an estimated 500,000 visitors in serene and dignified fashion. All told, the Flemish Community has spent some 15 million euros on 44 projects. Four of the five larger strategic projects are located in the Westhoek region (Ypres region), the undisputed champion of which was the IFFM, which managed to record the biggest growth in both absolute and relative figures: from 187,332 visitors in 2012 to 294,579 in 2013, an increase of a mere 60 % (VIFF 2014, 3). According to our latest information, one nearly reached the cape of 500,000 visitors in 2014. In regards to content, it has to be added without hesitation that the museum contributes to a deeper understanding and experience. It reportedly gives visitors cause to automatically reflect on the folly of war and thus also on the message of peace and tolerance and on the adage of 'no more war' that is attributed to the First World War. "There is much to learn and much to remember from all this," concludes the present Mayor Jan Durnez, "while not forgetting how important it is to internalise and spread the message of peace." (VIFF 2014, 5). Great stories are apparently again on the agenda, and museums must retell these stories by aestheticizing and educationalising them...

Apart from the many obstacles and paradoxes that this sort of pedagogic task evokes from a theoretical standpoint – the association between education and peace is by no means self-evident or straightforward, no less than that between history and

remembrance for that matter (see Pype 2013–2014) – it must be pointed out that this political discourse cannot be isolated from numerous social expectations, both implicit and explicit. The explicit expectations no doubt include the clear touristic benefits to be reaped by each of the battlefield regions (such as Ypres); subjecting historical cultural heritage to an ideological interpretation or claiming a monopoly on it are among the more implicit ones. During the lead-up to the current craze of commemoration, it has been repeatedly pointed out that a battle, as it were, has broken out between Flemish speaking and Francophone regions over the remembrance, one that is often associated with an underlying ideological agenda; all the more so given that the First World War in general, and the IJzer Plain in particular, have always formed a symbolic space in which the cradle of Flemish nationalism has been recognised, linked with the notion of a peace-loving society. On the French-speaking side, there is of course more emphasis on the unity of the 'Belgian' struggle, along with a greater streamlining of remembrance activities throughout the different communities of Belgium (e.g. Van Ypersele 2012). In any case, commemoration takes place in the present day, and as such it necessarily says more about who is doing the commemorating than what is being commemorated. The French historian François Hartog puts it this way: "The practice of commemoration has gone from 'died for' to 'died due to': not 'for France, but because of it" (Hartog 2013, 82). This is influenced by 9/11 and the loss of French soldiers in Afghanistan, which is thus linked to the confirmation of the visibility of, and primary focus on, the victim.

Be that as it may, the fact remains that the tendency on the part of the different cultural communities in Belgium to stress their own distinctive characteristics greatly impedes the polyphony of potential historical accounts and insights into the war. The notion of a 'peace-minded' Flanders that is propounded by the rhetoric of remembrance should be more of a starting point for a critical and multifaceted inquiry than a mere gratuitous slogan, and in our opinion this can only come from scientific research. This point is also clearly grasped by Piet Chielens, Coordinator of the IFFM, who in a very recent newspaper interview criticises the touristic and commercial undertone of the remembrance craze being orchestrated by politicians and government officials (the sale of 'war beer' is witness indeed to 'poor taste'!). But let us return to the necessity for scientific research, for which Chielens argues in the VIFF Flash: "The structural aid provided by the various local and regional governments for our operations amounts to only 30 % of our entire budget. These are difficult times for everyone, but what this basically means is that it's becoming increasingly difficult to do fundamental historical research and that we will have to devote ever greater effort to generating our own revenue. Those who believe this can be compensated by the success of the centenary commemorations (in the media, etc.) are correct in the short term. But over the long term this is untenable and in my opinion has a pernicious effect on the serious nature of our operations. The research we've been able to do on this topic is considerable, but if I'm really critical, it could have been so much better, but, quite simply, we did not have the people to do it." (VIFF 2014, 6).

This last point is of course much more applicable to the OMI (Onderwijsmusea Ieper – Museum of Education Ypres), which does not even have its own staff, let alone a coordinator.

15.2 The OMI: A Policy of 'educationalising'?

When comparing internal data on the numbers of visitors to the two museums, the underdog position in which the OMI finds itself becomes immediately clear. The fact is that the number of visitors to the OMI has never exceeded 5 % of that of the IFFM!

Year	OMI visitors	IFFM visitors
1996	7303	N/A
1997	3423	N/A
1998	6173	168,729
1999	9015	236,915
2000	11,271	231,167
2001	10,160	212,298
2002	9281	222,100
2003	9681	205,301
2004	9313	218,871
2005	2323	192,995
2006	Closed	216,174
2007	1645	206,263
2008	7631	214,428
2009	6748	206,887
2010	6954	198,542
2011	7708	177,232
2012	5870	187,332
2013	8446	294,579
2014	7777	483,741

Further analysis of these figures (taken from the internal reports of the OMI working group) moreover shows that the share of primary schoolchildren within the OMI's overall number of visitors is consistently high: Between 1993 and 1996, 184 primary school classes containing a total of 7654 pupils visited the OMI. In this same period, the OMI was visited by only 19 secondary schools with 634 pupils and 14 higher education groups with 302 students. This is related, of course, to the notion that a museum of education is the ideal destination for 'educational' school trips, something which is also indirectly illustrated by the detailed visitor figures for 2002–2003. The number of visitors peaks near the beginning and end of the school year, which are the best times for school trips.

OMI visitor numbers (2002–2003)	No.	
September 2002	1310	
October 2002	823	
November 2002	629	
December 2002	332	
January 2003	231	
February 2003	292	
March 2003	838	
April 2003	725	
May 2003	994	
June 2003	1106	

It is therefore no coincidence that the OMI's promotional efforts are focused on this target group. In this respect, a staff member of the Ypres museum actually wrote a more or less promotional article for the members' magazine of the largest professional teachers association in Flanders (Dendooven 1999). The article covered almost all of the actions taken by the OMI aimed at 'educational' use, such as the creation of an educational pack containing worksheets and the composition of a museum box. The former can serve as a guidebook during a school trip, and the latter as an appetiser in the classroom beforehand. The box, which contains a number of historical education artefacts, can actually be checked out by pupils so they can adequately prepare for their school trip from home or school. But anyone taking a closer look at the worksheets in this education pack will quickly see that it involves more of an exercise in accurate observation than a lesson on the history of education. The same applies mutatis mutandis to the museum hunt organised annually (beginning in 2001?) in the OMI. To get a good score, children mainly have to a good job of 'looking'. Whether or not this allows them to absorb much of the content is still very much in question. And we have very little idea of the extent to which these didactic tools are actually put to use; we do not know, for instance, how many times the museum box has been checked out, but we suspect not very often.

Even though all of these things are easy to justify from an educational standpoint and are undoubtedly useful in boosting the attractiveness of, and interaction with, the museum, the notion that these efforts to make the learning experience 'fun' end up unwittingly promoting stereotypes about education of the past is not merely hypothetical. In the aforementioned article written by the museum employee, the 'practical workshop' is referred to as the 'max' for a younger audience. On antique school benches, pupils get to have all sorts of fun with slate boards, slate pencils, ink pots, etc. The extent to which this has infantilising side effects is difficult to determine, but what we do know is that 'playing school' with children – and even more so with retired adults, who in Germany have clearly made a hobby of this 'historical education' in educational museums – invokes images of the past which are not only highly simplified, but are also extremely distorted and in which

numerous projections are made from the present day to the past. This may also have been the case with the class photo competition ['show your class in an original way'], which was organised in 2004 on the occasion of the thematic exhibition on the class photos of the French photographer Robert Doisneau, which were often imbued with humour, though also with nostalgia, irony and tenderness. It is presumably the first of these three dimensions that is felt most often among the general public – and probably more so among adults than children.

This is also the impression we get from glancing through the newspaper articles which have thus far been published on the OMI (newspaper cuttings found in the Archives of OMI; quotations in the following paragraph are taken from respectively INFO-VG 90/16 by Rita Gallis, De Bond, 03/04/1992 by Alex Van den Berghe and De Standaard, 20/04/2005, 8–9 by Michael Bellon). This obviously has something to do with the interpretation of certain journalists (who have the knack of capturing society's prevailing clichés as no other), though perhaps also with the self-image of the museum that has been propagated by some of its supporters. As far back as 1990, the text under a photo of the historically reconstructed classroom – still the main attraction at the OMI today - reads as follows: "memories of childhood brought back to life," and "the entire exhibition is a MIRROR of the past, a VIEW of the evolution, a CONTEMPLATION of the present." Two years later, the 'nodding negro', 'the anti-alcohol campaigns' and 'a bishop in Ypres' were the things which, based on the article's subheadings, most attracted the visiting journalist's attention. In this same regard, the title of the article itself was even less prone to misinterpretation: "The metric system, the wall maps of Congo, Fröbel: the Ypres museum displays all in the proper context." And in 2005, one of the so-called leading newspapers of Flanders described it as follows: "When you say Ypres, people immediately think of the First World War and the IFF Museum, which continues to attract more and more visitors. But just five minutes from the Cloth Hall on market square is the OMI, which is definitely worth a visit: (...) nostalgists will have a ball here!"

15.3 Our Incessant Plea for a Scientific Basis

Within the working group of the OMI, we have consistently objected to these relatively one-sided perceptions. The history of education is infinitely more complex that what the public would prefer to see or hear about it, and this is why we have maintained an incessant plea over the years that the exhibitions – both permanent and temporary – be established on a sound scientific basis. Many of the thematic exhibitions organised nearly every year are based on a doctoral or other research project. This was clearly the case with these ones, covering the influence of the Church on education in eighteenth century Ypres, the Congo, apprenticeship, wall charts, special education and religious instruction. We also

got the OMI site involved in hosting international conferences. The XXth International Standing Conference for the History of Education (ISCHE) visited in 1998, The Belgisch-Nederlandse Vereniging voor de Geschiedenis van Opvoeding en Onderwijs (BNVGOO) [Belgian-Dutch Society for the History of Education] held two seminars there, and the 11th gathering of the Internationale Gesellschaft für Historische und Systematische Schulbuchforschung took place there in October 2007 (see Van Gorp and Depaepe 2009). If these events had a message, it was that the history of education must be interpreted in all its complexity within the context of a wide range of social developments, not least the ideological, philosophical, pedagogic, cultural, political, social and economic developments. Rather than conveying a love for the educational profession or for schools, we sought to shed light on the role of the school in society via the OMI. What was its function? What purpose did it serve? It was in this context that we hoped to identify lengthy processes and patterns of educationalising, such as the context of the near-universal grammar of schooling, i.e. the prevailing rules of pedagogical praxis, such as those that unfolded in Western culture well into the twentieth century. This was the case for example in the exhibition on preschool education, but also in this one, which, for pragmatic reasons, used new acquisitions in the museum's own collection as point of departure. Indeed, as a consequence of these tenacious and ultimately difficult to change frameworks of didactic practice, museums of education bear a strong resemblance to each other throughout the entire modern world. One encounters practically the same remnants everywhere – 'icons' of education's past: globes, wall charts, school benches, textbooks, ink pots, pens and so many other attributes that at one time were fabricated for use in schools and which have now been given a second or third life in museum displays. These didactic tools invariably belonged to the repertoire of good education. They derived their meaning and function primarily from the scholastic rite of the classroom, thereby articulating the topical demarcation between the institution of school and the world outside. Because let's be honest: what can you do with a 'blank' map in everyday life?

Yet these views often encountered resistance – not just ideological resistance based on the fact that they (not without some irony) dared to question carefully fostered conceptions regarding the blessings of education and teaching, but above all because they were said to be too difficult for everyday people. Whereas in the last century criticism was voiced from the side-lines against our supposed iconoclastic treatment of sacred cows (such as the role of the Church and of the Belgian royal family in the Congo, or well-understood civic decency – the idea for an exhibition on corporality and sexuality that took embryonic form rather quickly had to be postponed until the twenty-first century before it could take final shape), it is this scientific quality itself that is currently being debated. It is said that, in part due to a shortage of personnel, a museological and/or didactic 'transadaptation' of our ideas would be, if not impossible, at least extremely difficult.

15.4 The Materiality of Things...Local Politics, Developers and the Limits of Scientific Impact

There is obviously a shortage of personnel (as the staff of the city's museum office is traditionally claimed for the IFFM, and this was little different in the run-up to the modernisations prior to the wave of commemorations), yet the lack of coordination, rejuvenation, energy and vision is just as considerable. Whereas the first OMI, which as noted earlier was located in the Cloth Hall but was forced to make room in 1998 for the IFFM, was founded on a – admittedly open to debate – concept (both architectural and museological, notably Friedrich Fröbel's box of building blocks, suggestions for which included an entrance fee and a play area), this theme has had to make way for a purely chronological approach in the museum's second version in the former Saint Nicholas church, which of course encourages the abovementioned 'acts and facts' approach. An attempt has been made – though in the end it did not amount to much more than a 'Hineininterpretierung' on our part – to place a line of continuity concerning the figure of the educator within the chronology of the permanent exhibition (located on the wall of the former chapel). This is meant to stand in contrast to the line of discontinuity formed by the various 'cells' within it, each of which deal with a separate chapter of the history of education from approx. 1200 to the present (Guide 1999). But it is doubtful whether a new concept is introduced in the process. Designating the teacher as the new central concept of the OMI could be the right thing to do, but it probably says more about the intentions of some of the museum's producers (and their views concerning the profession of education) than it does about the history of education.

Yet there is more. When one compares the OMI to the IFFM, which has since been through its third embellishment, the OMI's rather whimsical quality becomes even more evident. This is because 'remembrance', even the school variety, is inevitably a product of its time (Viñao 2012). In other words, the objects on display were selected, presented and contextualised at a specific moment in history. They carry this presentation and contextualising perforce further along with them (see also, Depaepe et al. 2014). This is why they are so susceptible to wear and tear, especially if they are not updated on a regular basis. In effect, the OMI stands for constancy and stability, in part due to its specific location, and it has become immune to all sorts of practical and conceptual changes. In sharp contrast to this is the IFFM, which stands for continual change and youthful dynamism, and for the undermining of stability through interaction between space, the public and society.

The fact is that the OMI has never truly recovered from the fire to its roof in May 2005. In light of the arrangements that were made, but also due to squabbles with the insurance company (which as of today have still not been fully resolved), the OMI had no degree freedom at all to receive a facelift during reconstruction. By contract, the OMI had to be restored to its original state. The same administrative/legal/bureaucratic jumble of exclusive municipal contracts with dubious partners also played a role in the development of a potential website. As a result, the OMI is

still unable to represent itself as a separate entity on the 'World Wide Web', even though an explicit attempt to do so was made from within the working group in 2007. Things became even worse when, in 2010, an approval committee, for purposes of streamlining the management of cultural heritage, refused to consider the four (other) municipal museums, in addition to the IFFM, as a single entity. This had the effect of severely limiting any potential external funding channels, for to qualify for an annual grant (between EUR 25,000 and 50,000) from that point onward, any museum had to have its own full-time curator and at least one full-time staff member, as a result of which museums end up in a genuine catch-22: no staff, no money...no money, no staff.

The situation has since deteriorated even further. One the one hand, Ypres, just like all other municipalities, finds itself in an even more difficult financial position due to the ongoing economic crisis and government politics, and on the other, developers have been longingly eyeing the OMI site. For this reason the city is considering the possibility of operating a single consolidated municipal museum in the future, which would then naturally have to be devoted to the history of Ypres. According to plans, this 'integrated' museum would need to encompass the four former municipal museums. For the OMI this would effectively mean that it would be forced to abandon its generalist viewpoint. Until now, it has been maintained as a matter of general principle that the story presented in the OMI is one which must apply to the entire history of education in Belgium and Flanders. When it reopened in 1998, this notion actually received more emphasis than had previously been the case. With the new plans, however, the demand for more 'couleur locale' will inevitably surface, which will indeed jeopardise the scientific approach we are advocating. In many local (and therefore not yet necessarily undeserving) initiatives, one can see that 'amateurism' often coincides with a tendency towards a 'folkloric' approach. Of course this is grist to the mill for the proponents of a purely antiquarian (and, so-called, interpretationless) factual history, which also poses risks from a museological standpoint. The so-called 'love' for the past does, after all, give way to an obsession for collecting things, which readily translates itself into a desire to exhibit as many of the assembled 'treasures' as possible without much organisation, let alone structure or underlying concept, and with an often highly anachronistic and/or a historical effect.

15.5 "Vorbei is nicht vorüber"... (Assmann 2013)

And yet...museums of education must, just like war or peace museums (that are, moreover, propagating their educational 'message' in almost the same educationalised way, see e.g. http://www.inflandersfields.be/en/workshop-tour-andrews-dreammuseum – but this may be beyond the scope of this article), be able to contribute to the individual 'processing' of the (educational) past. The experiences of which do not per se need to have been as drastic or traumatic as

those of an armed struggle between different groups of people. Previous thematic exhibitions (such as those on sexuality) teach us how therapeutic a liberating laugh or a perspective-inducing 'aha moment' can be when viewing confrontational material, or how the overwhelming problems of education, which gave teachers of that period countless sleepless nights, can suddenly seem silly or trivial in the light of history. And what is the educational benefit of these kinds of perspectiveinducing experiences? Wisdom? Unquestionably. In addition to providing an understanding of the 'historic' role of the school in particular, and of education and teaching in general, this kind of perspective-inducing insight – just like the educational historiography itself – gives the visitor not only tools for framing one's own scholastic experiences, but perhaps also for constructing one's own life history and, who knows, for the bricolage of the self. Yet we are not interested in pursuing this last point too deliberately, because from a supply-side standpoint, this would once again tend towards an educationalising and/or pedantic association with the past. We will let this 'effect' of one's encounter with the educational past take its own course. If the history of education has taught us anything, it is surely that all generally well-intended, pre-planned and orchestrated-from-above efforts to instil a certain behaviour in children have often had the opposite effect. . .

In our dealings with the educational past, let us therefore act more as historians than as pedagogues. In an era where history is in competition with memory and fiction (Chartier 2009, 353), let us focus on advancing historical insights: understanding as the basis for wisdom (see also Geschiedenis 2013). In our opinion, this can and must form the approach of modern museums of education, which will then necessarily need to stay in close keeping with the 'curiosity-driven research in the history of education'. Let us also trust that this increased insight will have an automatic humanising effect. 'Understanding' assumes, after all, both the empathic ability to imagine oneself in past lives as well as the liberating return to the here and now, which, with the help of more 'wisdom' than before, will likely enable better decisions to be made for the future. Does not the intrinsic value of our field of study lie – as we, but also many before us, contended at the time on the basis of Nietzsche and others – in the ability to switch between different perspectives (Depaepe 2012)? This again underscores the importance and the need for multidimensional and multi-layered historical narratives and interpretations.

On the basis of this perspective, we must also be prepared at all times to subject our own position as scientific experts on pedagogical museums to critical scrutiny. What is our role in the all-embracing cult of remembrance (De Baets 2008; Winter 1995, 2014)? Will our expertise in the multi-vocal cultural heritage industry be used solely as a tool of 'governmentality' (Tauschek 2013)? To what extent are we contributing towards the 'hegemonising' of historical meanings or cultural objects? Reflection and a critical distance with respect to our own role are thus called for. Questions concerning who develops the cultural heritage and how and why this happens should by no means be avoided in the process. Who generates interest in it? Who organises courses on it? Just how strong is this ever-growing and globally widespread demand for learning more about this cultural heritage? To what degree

is this all-embracing cult of remembrance driven by economics? And how is this related to the aestheticizing and educationalising trends to create attractive, inviting and stimulating spaces for this, which mobilise both the intellectual and emotional aspects of the education? Exactly what sort of knowledge and values is this heritage education meant to disseminate? How is this communicated? What are the motives behind all of these heritage activities? How do people produce and consume notions of heritage? And, last but not least, will heritage remain a closed, self-referential circuit, and to what extent can experts – on the basis of their scientific research – break open this circuit?

There are plenty of questions, and our emphasis in this regard should really be on continuing to question, for providing definitive answers would in this case seem to be not only extremely pretentious and prescriptive, but would often have an oversimplifying and elementarising effect as well. And this is precisely what we have been seeking to counteract by means of a scientifically substantiated contribution.

15.6 In Cauda Venenum?

In response to the finalising of a new publication on attending school during the First World War (Barbry et al. 2015) – an item of obvious interest to the two relevant museums in Ypres, all the more given that a temporary exhibition is being linked to it in the OMI (from 13 March 2015 to 10 April 2016) – our (critical?) reflections (Depaepe et al. 2015) have nevertheless received renewed attention. This small fire has since been put out, but that hasn't kept the adage of this article from being so thoroughly illustrated – more thoroughly that we ever could have established in the foregoing – in this unsavoury 'coda': "it's all about interpretation". Moreover, with a wink to what we at the time borrowed from Nietzsche (Depaepe and Simon 1996, 423), these reactions (and our subsequent responses) revealed the extent to which viewpoints are de facto materially defined 'points of view' from which the world is looked at, based not only on our biological throwness in this or that place, but also and above all on the social roles and social positions that we have been allowed to take up and to occupy in society.

For, just exactly what was the problem? In the first version of the introduction to the new book, we had almost literally copied, in Dutch, a number of the experiences with the Ypres museums described here. This was based in part on the principle that Flemish taxpayers also have a right to the 'knowledge' that the professors – part of whose salaries are paid by these taxpayers – disseminate via eminent international publications. We also felt it was good that the average Flemish intellectual, whom the above-mentioned exhibition targets just as much as the book does, would be alerted to potential political and economic pitfalls that lurk in today's society when time is consciously experienced and when remembrance and history flow together. We also feel this might be a means by which to offer an explanation as to exactly

why attending school – indeed one of the most interesting components of everyday existence – has thus far remained sorely neglected in the remembrance of past wars.

But the municipal museums (which includes the OMI) suggested that we leave the entire piece out. On the one hand, we heard that it was an 'apology' from the OMI and, on the other, that potential readers of the book had nothing to do with the 'inner workings' of the Ypres museums. It was argued that our complaint would probably have greater impact if it were communicated via a separate letter to the town council. The idea was, after all, that the book would be able to have its own life beyond the exhibition. It was pointed out that, from the outset, the purpose of the book was one that did not rule out the hope "for a life after, and independent of, the OMI". In our response, we let the people in charge of the museums know that we were certainly willing to engage in a constructive dialogue, but that we indeed still wished to reserve enough room for self-criticism and/or self-irony in the process. The section that was criticised was, we feel, in no way intended as an 'apology', and as such it also had very little to do with the 'inner workings'; instead - and this was our main focus - it was intended to get people to reflect on remembrance and the representation of the history of war and the educational lessons that were drawn from it (and thus indirectly to reflect on the pedagogic past as well). Perhaps we wanted to give the city of Ypres a pat on the back for the museological efforts that were made – city authorities were under no obligation to keep an education museum afloat, much less a peace museum (the existence of which, in view of its large number of visitors, was obviously never in question – this in contrast to the education museum). But we would not allow ourselves to be moved toward any form of self-censorship. Further, the removal of the objectionable passage would serve only to confirm the spectre of a purely antiquarian (and, as it were, interpretationless) factual history, something which we had specifically warned about in that piece. In the individual contributions of the book, there was not much context related to philosophy of history and/or sociology of knowledge provided in respect of the location of the remembrance and representation.

The relevant department responded fairly quickly to our response by saying that nothing would be removed, for this had never been done before. So far, so good, we thought. Until the moment that, less than 1 week later, the IFFM itself got involved. Besides being accused of never having spoken about "troubled relations between neighbours", we were also told that our text, in spite of its academic tenor and its exhortation to self-reflection, had nothing to do with the historiography of the education of Belgian children during the First World War (the actual subject of the book). In the eyes of the IFFM spokespersons, our passage was no more and no less "a complaint against the powers that be (in the city, within the Flemish government and in Belgium), and it's clear that you believe the IFFM to be their epigone. You don't need any thoroughgoing textual analysis for that," was the verdict. As a consequence of this undeniable 'difference of opinion', even the collaboration itself – in the form of a speech on the occasion of the opening of the exhibition – was put at risk, as the speaker threatened not to appear...

15.7 All's Well That Ends Well?

We haven't allowed it to get that far yet. Without abandoning our principles, we have opted for a pragmatic solution. An honourable compromise, which – according to the stereotype – Belgians (or Flemings?) are quite good at... The theoretical framework of our 'theoretical' considerations was preserved in its entirety, but all specific references to the city and to the museums of Ypres were removed. Nowhere did we attempt to suggest (and we communicated as much to the IFFM) that the 'powers' to which they referred should be lumped together with them. For that matter, we don't feel that they ought to be discredited in any way for what they do. The task of historical researchers presumably consists of making it clear why people adopt certain viewpoints and perform certain acts rather than judging these viewpoints or acts from a moral point of view – though this does not imply that the historical research or the historical researcher must at once throw all ethical considerations overboard. Quite the contrary, in fact.

This is precisely why we have sought to 'rescue' the peaceful coexistence of the two museums in the 'city of peace' Ypres, as well as the collegial and friendly relations which have existed for many years with the office of the municipal museums – but without abandoning our principles. Yet it clearly made no sense to make a big issue out of it or to wear ourselves out any further by arguing for what we believe is right, as this could have resulted in permanent damage...

Whether or not this has saved the future of the OMI is still another question, of course, and only the future will tell. One thing is for sure: we are not giving up yet, though we are not in the least convinced of a successful outcome. Seldom do the arguments of historical research override social concerns (in this case economic, financial, political, etc.). Looking back on what has so far been achieved in the OMI, we are sadly unable – in contrast to what Max Weber 100 years ago wished future researchers – to say: "here we really achieved something, something which will last" (Weber 1917/1919; 1994, 5). But such is the fate of every history, and it also unquestionably belongs (to further paraphrase Weber) to the 'intellectual sacrifice' of every historical researcher – which does not alter the fact that it would still be especially painful for Ypres should this one particular thematic exhibition on education during the First World War turn out to be the last in a nonetheless respectable series of predecessors.

P.S. In extremis we have had to note that the main title of our book has been changed at the last moment by the municipal museums. Instead of "onderwijs is overal, zelfs in oorlogstijd" (education is everywhere, even during war), they opted for "naar school in oorlogstijd?" (going to school in time of war?). Not very professional, but we presume that this was done with the best of intentions in order to make the book and exhibition 'more attractive'. However, this does not preclude that this could once again indicate that historians transformed into entrepreneurs of memory really do work from a different (and more limited, in our opinion) perspective.

References

- Archives Onderwijsmuseum Ieper, Correspondentie en Verslagen vergadering Stuurgroep (additionally with personal documents), 1990–2015.
- Assmann, A. (2013). Das neue Unbehagen an der Erinnerungskultur. Eine Intervention. München: C.H. Beck.
- Barbry, R., Dewilde, J., Depaepe, M., Simon, F., Goerlandt, E., Vandenbilcke, A., & Verplaetse, M. (Eds.). (2015). Naar school, zelfs in oorlogstijd? Belgische kinderen lopen school, 1914–1919. Ieper: Dienst Stedelijke Musea.
- Chartier, R. (2009). Au bord de la falaise. L'histoire entre certitude et inquiétude. Nouvelle édition revue et augmentée. Paris: Albin Michel.
- De Baets, A. (2008). Gebruik en misbruik van de geschiedenis. Amsterdam: Boom.
- Dendooven, D. (1999). Het vernieuwde Stedelijk Onderwijsmuseum te Ieper, Basis. *Christene School*, 106(14–15), 22–24.
- Depaepe, M. (2012). Between educationalization and appropriation. Selected writings on the history of modern educational systems. Leuven: Leuven University Press.
- Depaepe, M., & Simon, F. (1996). Paedagogica historica: Lever or mirror in the making of the history of education? *Paedagogica Historica*, 32(2), 421–450.
- Depaepe, M., Simon, F., & Verstraete, P. (2014). Valorising the cultural heritage of the school desk through historical research. In P. Smeyers & M. Depaepe (Eds.), *Educational research: Material culture and its representation* (pp. 13–30). Cham: Springer.
- Depaepe, M., Simon, F., & Barbry, R. (2015). Enkele reflecties over de herdenking van oorlog en onderwijs en de representatie ervan. In R. Barbry, J. Dewilde, M. Depaepe, F. Simon, E. Goerlandt, A. Vandenbilcke, & M. Verplaetse (Eds.), *Naar school, zelfs in oorlogstijd? Belgische kinderen lopen school, 1914–1919* (pp. 6–11). Ieper: Dienst Stedelijke Musea.
- Geschiedenis en erfgoed, bondgenoten of concurrenten? (2013). Brussel: Koninklijke Vlaamse Academie.
- Guide of the Municipal Education Museum of Ypres (1999). Ieper: Stedelijke musea. http://www.inflandersfields.be/en/workshop--tour-andrews-dreammuseum. Retrieved on October 30 2014. Hartog, F. (2013). Croire en l'histoire. Paris: Flammarion.
- Pype, B. (2013–2014). Educatie en vrede in het oorlogsmuseum. Een literatuurstudie en kritische kijk op de educatieve rol van musea in de herdenking van WO I. Leuven: KU Leuven, Faculty of Psychology and Educational Sciences, Master's thesis in educational studies.
- Tauschek, M. (2013). Kulturerbe. Eine Einführung. Berlin: Dietrich Reimer.
- Van Gorp, A., & Depaepe, M. (Eds.). (2009). Auf der Suche nach der wahren Art von Textbüchern. Bad Heilbrunn: Verlag Julius Klinkhardt.
- Van Nieuwenhuyse, K., Simon, F., & Depaepe, M. (2015). The place of history in teacher training and in education. A plea for an educational future with a history, and future teachers with historical consciousness [Der Ort der Geschichte in der Lehrerbildung und in der Pädagogik. Ein Plädoyer für eine pädagogische Zukunft mit einer Geschichte und zukünftigen Lehrern mit historischem Bewusstsein]. *Bildungsgeschichte. International Journal for the Historiography of Education*, 4(1), 57–69.
- Van Ypersele, L. (2012). Les préparatifs des commémorations de 14–18 par la Fédération Wallonie-Bruxelles et la Wallonie. Revue belge d'histoire contemporaine, 42(2), 193–197.
- VIFF flash, 50. (2014, april-juni). With contributions of among others: Paul Breyne, Geert Bourgeois, Jan Durnez, and Piet Chielens.
- Viñao Frago, A. (2012). La historia material e inmaterial de la escuela: memoria, patrimonio y educación. *Educação*, 35(1), 7–17.
- Weber, M. (1917/1919; 1994). Wissenschaft als Beruf. Studienausgabe. Herausgegeben von Wolfgang J. Mommsen und Woftgang Schluchter in Zussamenarbeit mit Birgitt Morgenbrod. Tübingen: J.C.B. Mohr.
- Winter, J. (1995, 2014). Sites of memory, sites of mourning. The Great War in European Cultural History. Cambridge: Cambridge University Press [Canto Classics].

Author Index

A Agamben, G., 48, 49, 53 Auclert, H., 139	F Ferry, J., 137, 138, 149 Foucault, M., 88, 96, 97, 119, 121, 129–131, 189 François, K., 88 Freidson, N., 200
В	Fröbel, F., 216
Bakhurst, D., 80–82	Fullan, M., 20, 21
Barthes, R., 121	
Barton, B., 87, 88, 94 Belkacem, N.V., 147	G
Bernstein, B., 88, 97–99	Gee, J., 119, 125, 126, 128, 132
Bill, G.I., 108, 109	Gerstner, L., 13
Bledstein, B., 105	Gersther, E., 13
Bourdieu, P., 98	
Bourgeois, G., 210	Н
Bové, P., 129, 130	Hacking, I., 119, 129, 130, 132-135
Bush, V., 108	Hartog, F., 211
Butler, J., 149	Hesiod, 23
	Hobart, M., 96
C	
Cavell, S., 50–53, 57, 62–64,	K
66, 68	Knijnik, G., 94–96
Chielens, P., 211	Knorr Cetina, K., 97
Christensen, C., 13	Kozol, J., 119, 124
Chubb, J., 164	
Crouzet-Benhaben, J., 142, 143, 145	•
	L
D	Latour, B., 34–36 Lemov, D., 25, 120, 124, 128
D'Ambrosio, U., 88, 91	Lemov, D., 23, 120, 124, 128
Darwin, C., 25, 26	
de Certeau, M., 207	M
Doisneau, R., 214	Maton, K., 97, 98
Durnez, J., 210	Mitra, S., 15

224 Author Index

Moe, T., 164 Sée, C., 138, 139 Muller, J., 97, 98 Sergiovanni, T., 22, 23 Sisyphus, 12 Sjögren, J., 92 Socrates, 12 Nietzsche, F., 60, 63, 64, 67, 219 Stoll, C., 13 \mathbf{o} Т Overwater, J., 192, 193, 198 Thrift, N., 38 Ovid, 24, 26, 27 Thucydides, 19 Truman, H., 111 P Pais, A., 88 Pinxten, R., 88 Van Bendegem, J.P., 89, 93 R Rodgers, D., 159 Weber, M., 191, 221 Rorty, R., 16, 130 White, H., 119, 129, 131, 132, 135 Wittgenstein, L., 62, 64, 88, 92, 94, 95 S Sawyer, K., 121, 129, 130 Scott, J.W., 149 Žižek, S., 88

Subject Index

A ABCD de l'égalité, 5, 6, 137–149 Abstraction in discourse, 33 Achievement gap, 124, 176, 178	Critical theory, 30–34 Cultural heritage, 211, 217, 218 Curricula, 83, 96, 160
Actor network theory (ANT), 3, 34–37, 40, 42 Affect, 3, 6, 29–43, 67, 72, 76, 83, 135, 161, 162, 173 Affirmative action, 174–176, 180 Agency, 3, 29–43, 81, 125, 128, 130, 134, 135, 179 A Nation at Risk, 155, 158, 176	D Discourse, 1–7, 9–11, 13, 16, 29–43, 45–47, 57–60, 81, 87–99, 119–135, 138, 140, 141, 148, 149, 154, 155, 164, 168, 173–185, 189, 201 Discursive relations, 129
В	E
Baccalaureate, 139–143, 145	Educational crisis, 153, 158, 169 Educational historiography/history of education, 2, 149, 179, 184, 207–209,
C	213–215, 217, 218
Catholic Church, 148	Educationalization processes, 218
Change, 1–7, 9–11, 13, 15–27, 29–43, 45–47,	Educationalising discourse, 30, 138, 149
57–61, 68, 72, 77, 84, 94, 99, 105, 113,	Educationalizing (social problems), 156
119–135, 137–149, 154–163, 168,	Educational research, 1, 3, 4, 6, 29–32, 38, 40,
173–185, 189, 191, 199	41, 71–85, 122, 126, 155, 158, 159, 161,
Child and Youth Psychiatry, 197	163, 167, 168, 173–185
Child protection, 7, 189–201	Education museums/museums of education, 7,
Child Protection Acts, 190	215–221
Cold War, 5, 101–116, 159, 160	English language learners, 183–185
Coleman Report, 158	Equality, 6, 137–149, 175
Colorblindness, 173–179, 181, 184, 185	Ethnomathematics, 88, 91, 92, 94–96
Commemorative education, 7, 208	Europe, 2, 3, 19, 60, 189, 196
Common Core State Standards (CCSS), 177, 181–185	
Conseil National des Femmes Françaises	F
(CNFF), 141, 142	Family resemblance, 4, 5, 88, 92–96, 99
Creativity, 4, 14, 57–68, 73	Feminist, 138–142, 146, 149

226 Subject Index

M Magic, 7, 189–201 Management, 3, 17–21, 27, 53, 105–107, 120, 123, 124, 160, 161, 178, 195, 197, 199–201 Market based reform, 165 Materialities of thing, 216–221
Mathematical discourses, 4, 99 Mathematical practice, 5, 88, 91–93, 95–99 Mathematics, 20, 62, 72, 75, 76, 79, 83, 87–99, 144, 181, 184 Metamathematics, 91 Metamorphosis, 175, 184 Ministry of Justice, 193, 195, 196, 198, 199
N National Assessment of Education Progress (NAEP), 160, 161 Nature, 3, 4, 16, 25, 26, 52, 65, 72, 77, 79, 87, 88, 133, 139, 140, 144, 158, 161, 162, 168, 182, 211 Nederlandsch Mettray, 190, 194, 199 Neuroscience, 4, 71–78, 80, 82–85 Newness, 10, 14, 16, 59 Nihilism, 4, 57, 59–61, 67, 68 No Child Left Behind, 165, 177 Non-representational theory, 37–43 Nurture, 93
O Ortho-pedagogics, 193, 194 Otherness, 88
P Pedagogical programs, 96 Plurality, 4, 87–99 Policy, 1, 3, 6, 22, 29, 45, 47, 58, 59, 88, 113, 154–157, 161, 162, 164, 166, 174, 176–182, 184, 198, 200, 201, 209, 212–214 Politics of warning, 130 Power relations, 99 Prime number, 89–95, 97, 99 Private good, 102, 106, 107, 110, 114, 116 Professionalization, 189–201 Proof, 77, 90–93, 97, 160 Psychologisation, 46

Subject Index 227

Psychology, 30, 32, 46, 47, 78, 80, 129, 144,	T
147, 192–194	Teacher education, 11, 119–135
Public good, 102, 108, 109, 111, 114, 116	Teaching, 10, 11, 15, 62–64, 72, 73, 75, 80, 83, 84, 96, 119, 120, 122, 125, 128, 129,
	134, 135, 139–144, 147, 215, 218
Q	Teaching-and-learning, 62, 72, 119, 120,
Quantitative research, 79	122–125, 127–128, 134, 154, 163
	Technology, 9–16, 40, 58, 72, 83, 109, 110, 167, 182, 208
R	Tiredness, 45–54
Race-conscious, 173-178	Tool, 14–16, 51, 73, 76, 82, 88, 90, 96, 97,
Race-neutral, 173	112, 125, 128, 134, 135, 173, 176, 213,
Racialized students, 173, 177, 181	215, 218
Rational agent, 81	Transformation, 13, 27, 68, 74, 81, 83, 93, 94,
Rearticulation, 175, 185	130, 164, 189, 201
Reductivism, 78	
Reform, 11, 12, 14, 17–21, 29, 120, 122, 124,	
125, 129, 135, 137–149, 153, 154,	U
156–159, 164, 165, 168, 169, 176,	United States, 9, 62, 107, 146, 157, 173, 175,
177, 180	176, 178, 180, 181, 184
Remembrance, 210, 211, 216, 218–220 Researcher, 21, 29, 36, 37, 40, 42, 45–51, 53, 54, 72, 76, 77, 79, 83, 87, 88, 96, 101,	University, 3–5, 17–19, 22, 23, 45–54, 60, 61, 72–74, 101–105, 107–115, 119, 120, 122, 123, 125, 126, 129, 157, 164, 179,
108, 110, 153, 154, 159–161, 163,	183, 197
165–167, 169, 183	Use, identity, function, 128, 130
Residential care, 189	Utterance, 130–133
\mathbf{s}	V
School, 6, 11, 13, 16, 22, 23, 29, 31, 34, 58–60, 68, 71, 74, 89, 96, 103–106, 110–112,	Value-added models (VAMs), 163, 165–167
116, 119, 120, 122–124, 126–129, 134,	Vertical knowledge structures, 97
116, 119, 120, 122–124, 120–129, 134, 137–149, 153–161, 163–168, 173, 174, 176–185, 194, 195, 198, 199	vertical knowledge structures, 97
choice, 163, 164, 167, 176	W
Seat signals, 120	Western Academic Mathematics (WAM), 87,
Silence, 62, 64, 68, 184	88, 90, 92–95, 97, 98
Skeleton, 88–97, 99	What Works Clearinghouse (WWC), 167, 168
Societal context, 123, 135	World War I, 140, 179, 208
Streetmathematics, 91	
Stress, 45–54, 95, 154, 211	
Structuralism, 36, 131	Y
Style, 11, 18, 36, 39, 40, 61, 93, 129, 131	Ypres, 7, 207–221
	- F, · , · .