# An Archaeology of Educational Evaluation

An Archaeology of Educational Evaluation: Epistemological Spaces and Political Paradoxes outlines the epistemology of the theories and models that are currently employed to evaluate educational systems, education policy, educational professionals and students learning. It discusses how those theories and models find their epistemological conditions of possibility in a specific set of conceptual transferences from mathematics and statistics, political economy, biology and the study of language.

The book critically engages with the epistemic dimension of contemporary educational evaluation and is of theoretical and methodological interest. It uses Foucauldian archaeology as a problematising method of inquiry within the wider framework of governmentality studies. It goes beyond a mere critique of the contemporary obsession for evaluation and attempts to replace it with the opening of a free space where the search for a mode of being, acting and thinking in education is not over-determined by the tyranny of improvement.

This book will appeal to academics, researchers and postgraduate students in the fields of educational philosophy, education policy and social science.

**Emiliano Grimaldi** is Associate Professor of Sociology of Education at the Department of Social Sciences, University of Naples Federico II, Naples, Italy.



# An Archaeology of Educational Evaluation

Epistemological Spaces and Political Paradoxes

Emiliano Grimaldi



First published 2020 by Routledge 2 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN and by Routledge

52 Vanderbilt Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2020 Emiliano Grimaldi

The right of Emiliano Grimaldi to be identified as author of this work has been asserted by him in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

British Library Cataloguing-in-Publication Data
A catalogue record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data
A catalog record has been requested for this book

ISBN: 978-1-138-56918-8 (hbk) ISBN: 978-0-203-70436-3 (ebk)

Typeset in Bembo by Cenveo® Publisher Services To Elena, Sveva and Bianca

My other space



## Contents

|   | List of figures  | X    |
|---|--|------|
|   | List of tables   | Xi   |
|   | List of boxes  | xii  |
|   | Acknowledgements   | xiii |
|   | Foreword by Stephen J. Ball  | xiv  |
|   | Introduction: Of other evaluations in education  | 1    |
|   | Questioning educational evaluation as a critical ontology of ourselves 3 Inhabiting other evaluative spaces 8 Book overview 11 |      |
| 1 | Governmentality, evaluation and education:<br>An archaeological gaze   | 14   |
|   | Educational evaluation as a governmental practice 14   |      |
|   | Government, evaluation and truth 20  |      |
|   | Genealogy and archaeology: Two complementary gazes on regimes of government 22   |      |
|   | The archaeological method within an analytics of government 25   |      |
|   | The archaeological description of discursive formations 32   |      |
|   | Trees of derivation, interdiscursive configurations and forms of articulation 42   |      |
|   | Conclusion 45  |      |
| 2 | Educational evaluation as an enunciative field   | 53   |
|   | Suspending educational evaluation 53   |      |
|   | A long-standing and globalised social experiment to make education governable 54   |      |
|   | Educational evaluation as a form of rationality 61   |      |

| 72  |
|-----|
|     |
| 78  |
|     |
| 86  |
|     |
| 105 |
|     |
| 126 |
|     |
| 145 |
|     |
|     |

|   |  | Contents ix |
|---|--|-------------|
| 8 | Epistemological ruptures and the invention                     |             |
|   | of other evaluations in education                              | 163         |
|   | Epistemological ruptures: Space, time and norm 164             |             |
|   | Other evaluations in education: Contesting the anthropological |             |
|   | postulate 172  |             |
|   | References   | 175         |
|   | Index  | 187         |

# Figures

| 2.1 | The globalised space of educational evaluation                    | 59  |
|-----|---|-----|
| 3.1 | The tridimensional epistemic space of educational evaluation      | 81  |
| 4.1 | Living system as a grid of specification                          | 87  |
| 4.2 | Biology, organisational theory and educational evaluation         |     |
|     | as fields of concomitance   | 98  |
| 4.3 | The archaeological quadrilateral of educational evaluation,       |     |
|     | organisational theory and biology                                 | 102 |
| 5.1 | Production as a grid of specification. The Context-Input-Process- |     |
|     | Product evaluation model  | 106 |
| 5.2 | Measuring, monitoring and intervening on the mechanics            |     |
|     | of the educational process as production                          | 116 |
| 5.3 | Political economy, management theory and educational              |     |
|     | evaluation as fields of concomitance                              | 120 |
| 5.4 | The archaeological quadrilateral of educational evaluation,       |     |
|     | management theory and political economy                           | 122 |
| 6.1 | The study of language, sociology and educational evaluation       |     |
|     | as fields of concomitance   | 137 |
| 6.2 | The archaeological quadrilateral of educational evaluation,       |     |
|     | sociology and the study of language                               | 141 |
| 7.1 | The epistemic quadrilateral of educational evaluation             | 146 |

## **Tables**

| 1.1 | Four modalities to interrogate regimes of government    | 18 |
|-----|---|----|
| 1.2 | The identification of the objects of discourse          | 33 |
| 1.3 | The identification of a subject as enunciative modality | 36 |
| 1.4 | Grasping the formation of concepts                      | 38 |
| 1.5 | Grasping the formation of concepts                      | 40 |
| 1.6 | The archaeological gaze deployed within an analytics    |    |
|     | of government   | 46 |
| 2.1 | Educational evaluation as a governmental techne         | 67 |

## **Boxes**

| 3.1 | The case of school effectiveness research        | 83 |
|-----|--|----|
| 3.2 | The case of school improvement and its relations |    |
|     | to economy and biology                           | 84 |

### Acknowledgements

The writing of this book has been for me possible thanks to a series of encounters with colleagues and friends who have profoundly changed the way I think and do research as a sociologist of education. Foremost among them is Stephen J. Ball, from whom I learned how to think differently about education and sociology of education, mobilising Foucault as a theorist of freedom and a methodologist. My heartfelt thanks go to Roberto Serpieri. Without his insightful impulses and outside our common intellectual journey this book would not have been possible. Paolo Landri continues to be for me an invaluable source of inspiration and helps me to feed off the intellectual curiosity and the passion for education that have originated this book. I am also very especially indebted to Helen M. Gunter for her comments and support at the initial stage of this writing project. I also want to acknowledge Martin Lawn, Eric Mangez, Romuald Normand and Jennifer Ozga and Pat Thomson for their helpful remarks on earlier presentations and public lectures based on parts of the book. I seize the occasion to thank many colleagues at the Department of Social Sciences of University of Naples Federico II who have offered valued comments, insights and support at different stages of the writing process. They have contributed to the book in more ways than they know. While I am indebted to all these people who have helped me to think and write productively, I take full responsibility for the text. Finally, I need to thank my family, Elena, Sveva, Bianca, Rosa, Umberto and Alessio. Without their love, patience and encouragement, this book would never have been finished. In the writing of the book, my thoughts often went to Ubaldo and our discussions on much of the topics covered in the book.

#### **Foreword**

#### Stephen J. Ball

Foucault said, 'Everything I do, I do in order that it may be of use' (Defert and Ewald 2001: 911–12). In this respect, he is not a theorist in the traditional sense, his work is about acting on the world, acting in the world, changing the possibilities of how the world might be and how we might be 'in' the world. Emiliano Grimaldi's book is also useful in these same senses, but also in another way – it offers, to borrow Foucault's words, a 'meticulous, erudite and exact' application of the method of archaeology. The book is a guide, a template, an exemplar of the archaeological method and very specifically how it may be used and applied, in this case to the field of educational evaluation as a general system of thought. The importance of this cannot be underestimated – much is said and written about the archaeological method, but it is rarely put into practice, thorough-going applications are very few and far between. Students eager to explore the promise of the method are typically mystified and confused by the challenges involved and the absence of commentaries or examples that are able to render Foucault's exhortations into techniques of application. This book responds to this absence to make archaeology into something sensible, doable and powerful as a means of critique: a vehicle for thinking about the ways in which current social arrangements and practices produce and constrain, at the same time, our possible modes of action and being. Stage by stage, level by level, dimension by dimension, drawing on Foucault's The Order of Things, the book unpicks the enunciations, regularities and inter-discursive configurations of evaluations. It shows us how archaeology can be done!

The aim of archaeology as laid out in this book is not oriented toward 'a theory of the knowing subject, but rather to a theory of discursive practice' (Foucault 1970/1994: xiv). It seeks to render visible in careful and exact fashion 'the provenance of the very apparatus within which we think' (Mills 1997: 76), that is our enmeshment in discursive practices. This endeavour is both practical in a philosophical or sociological sense and eminently political.

... the political, ethical, social, philosophical problem of our days is not to try to liberate the individual from the state, and from the state's

institutions, but to liberate us both from the state and from this type of individualisation which is linked to the state. (Foucault 1983: 216, emphasis added)

The apparatuses and practices of educational evaluation is the specific focus here and the forms and meaning of education and possibilities of subjectivity produced within these. Evaluation, as Grimaldi puts it, is 'a constitutive and distinctive trait of our educational present', an authoritative voice within the current possibilities of education, an epistemological space of professionalisation (which is part of a more general de-politicisation and technisation of education), a space of expertise and a field of visibility within which new kinds of educational subjects are made-up. Educational evaluation is also one area and one set of polyvalent techniques within a general, contemporary dispositif of government that is now referred to as 'governing by numbers'. The subject under such a regime is made calculable rather than memorable. malleable rather than committed, flexible rather than principled, productive rather than truthful - or more precisely is rendered into a particular form of the truth, a numerical truth. Very particularly within the contemporary technocratic market regime of neoliberalism, the relationships of truth and power are articulated and operationalised more and more in terms of forms of performance, effects or outputs and outcomes, all expressed in the reductive form of numbers; the 'numericisation of politics' as Legg (2005: 143) calls it. Grimaldi takes us beneath the seductive positivities of numericisation to reveal the forms of knowledge, the modes of being and the semantic claims that evaluation bring into existence within education. Within an archaeological approach, this is addressed by mapping the 'unconscious of knowledge', its aim is 'not to uncover the truth or the origin of a statement but rather to discover the support mechanisms which keep it in place' (Mills 1997: 49).

This remarkable and compelling book renders our educational present and its prevailing positivities fragile and revocable. It makes these, and evaluation in particular, 'not as necessary as all that' (Foucault 1971: 8). It undermines the self-evidence of measurement and its horizon of silent objectification within which we are articulated, and in doing so it opens up spaces for acting and thinking differently about education and as educators our relation to ourselves and to others, to our students. To paraphrase Foucault, Grimaldi's archaeological analysis shows us that we are much freer than we feel, that and what we accept as truth, as evidence, can be criticised and destroyed (see Foucault 1988: 9). Evidence and evaluation are not necessarily bad, but they are very, very dangerous.



#### Introduction

#### Of other evaluations in education

This book is an experiment that originates from the will to question evaluation as a constitutive and distinctive trait of our educational present. Its specific remit is the analysis of the epistemological space where the contemporary regime of practice of educational evaluation finds its conditions of possibility.

My interest in the topic stems from the acknowledgement of three different but interrelated aspects of contemporary education. First, evaluation is nowadays a key semantic device in every claim on education. It acts as an obligatory passage point for whatever voice has the ambition to be heard and be recognisable as authoritative when speaking about education. Importantly, an evidence-based, outcome-oriented and standardising evaluation is presented as a necessary constitutive element of education and its government, as a neutral and eminently technical activity, whereas its politics and historical contingency are concealed and its effects in term of power are made invisible. Second, in the last decades evaluation has become an identifiable and unavoidable component of the broader governmental and professional establishment of education at the global level on the basis of the assumption that it can provide actual and potential contributions to improving learning, teaching and administration, and in general the quality of education. Third, as teachers, students, parents, academics, researchers or administrators, we are continuously made and remade into subjects and objects of evaluations through scholarship, policy and practice at different scales and for different purposes.

Of course, this is not something specific to education. Dahler-Larsen (2012: 3) has recently noted how evaluation is part of 'a larger societal trend that also includes activities such as auditing, inspection, quality assurance and accreditation – which together constitute a huge and unavoidable social experiment which is conspicuously cross sectional and transnational'. Yet, education is a field where this trend manifests itself as particularly cogent and, somehow, disruptive. As part of this unavoidable social experiment, our contemporary experience of education implies the recurrent engagement with multiple and increasingly pervasive practices of evaluation that influence how education is thought and practiced as well as the ways its qualities are conceived and appraised.

A wide array of activities is ranged under the conceptual umbrella of educational evaluation: student assessment, measurement, testing, program evaluation, school personnel evaluation, school accreditation and curriculum evaluation. More and more education systems in the world are transformed by 'ambitious school reform programmes which include a strong element of evaluation and assessment' (OECD 2013: 3). As Kellaghan et al. (2003) observe, evaluation 'occurs at all levels of education systems, from the individual student evaluations carried out by classroom teachers, to evaluations of schools and districts, to district-wide program evaluations, to national assessments, to cross-national comparisons of student achievement' (p. 1). These reform programmes adopt in a more or less coherent way a holistic evaluative framework that addresses five levels: system evaluation, policy evaluation, school evaluation, staff appraisal and student assessment. In doing so, they mobilise and are mobilised by bodies of evaluative knowledge that can be related to specific fields of theoretical and empirical investigation: product, personnel, policy and program evaluation (Scriven 1991). Through these bodies of evaluative knowledge, educational people, objects, activities, organisations, systems or the diverse combinations of them are governed. made and continuously transformed.

Within such a field of knowledge, evaluative theories and models with very different political underpinnings coexist and confront each other (Madaus and Stufflebeam 2002: 18). At the same time, it is widely acknowledged how, within these confrontations, neoliberalism and neomanagerialism are co-opting evaluation, establishing a doxa and subjugating or marginalising alternative views. Interestingly, the epistemological space where the struggles between alternative educational evaluation theories and models occur seems to have a distinctive style that is particular ways of looking at things and people, practices of division, analytical strategies and modes by which things and people are made visible.

The ambition of this book is to take seriously this last point, attempting a detailed analysis of the distinctive style of the epistemological space of educational evaluation. Such an analysis will be carried on in a general frame that looks at the interplay between the questioning of the forms and limits of evaluative knowledge through an archaeological method (Foucault 2002a, 2002b) and a critical ontology of ourselves (Foucault 1997a; Dean 2010) that problematises the ways in which educational evaluation is imbricated in the fabrication of a regime of truth and, more widely, in the making and government of ourselves as educational subjects. Using foucauldian archaeology as a method, the book outlines how theories and models currently employed to evaluate educational systems, education policy, schools as organisations, educational professionals and students learning find their epistemological conditions of possibility in a specific set of conceptual transferences from mathematics and statistics, political economy, biology and the study of language (Foucault 2002a).

The ultimate aim of the analysis is to identify a set of epistemological and ethico-political paradoxes that affect contemporary educational evaluation as an enunciative field and, more widely, as a regime of practice. In doing so, the book intends to offer a critical (but constructive) contribution to the debate on evaluation and its possible theoretical and practical development. In fact, the analysis ends discussing the epistemological challenges to be explored in the attempt to go beyond the tyrannies of contemporary evaluation and think differently about the subjects, the objects and the ethics of educational evaluation.

This introductory chapter defines the scope, the analytical frame, the remit and the limits of the book. I unpack the conceptual and ethical moves that I have outlined above, discussing more in details what is the relevance of the analysis, to what extent the questioning of educational evaluation as a feature of our educational present stands as part of a critical ontology of ourselves and, finally, how this book represents an attempt to enlarge the space of possibility for educational evaluation, contributing to a new evaluative politics and practice.

# Questioning educational evaluation as a critical ontology of ourselves

The analysis of the epistemological space of educational evaluation is located in a framework that addresses evaluation as the recursive interplay between a form of knowledge, a variety of related governmental technologies and techniques and a kind of ethical work. As an archaeology of educational evaluation, this book is inspired by a research sensibility where the analytical is mutually constitutive of the ethical or, to put it in another way, where *critique* acts as connection between an archaeological gaze as *clinique* and an emancipatory research *ethics*. If in fact this is mainly a clinical work with an aim to describe evaluation as a form of truth production in the field of education, then such a description is ethically devoted to the opening of spaces of agonism (Oksala 2012) and the questioning of the limits it imposes on us (Fimiani 1997). This is an exercise of a critical ontology of ourselves as contemporary educational subjects in our relation to evaluation as a key regime of practice and its role in the production of truth about education, its objects, processes and subjects.

#### Critique

What does it means to say that evaluation, as knowledge, technology and ethical work, marks the distinctiveness of our educational present? In the perspective of the book, our experience as contemporary educational subjects is conceptualised as difference in space and time. Experience is unanticipable, but also constituted through the repetition of anterior evaluative events that are delimited by concrete socio-historical conditions.

Ontologically, the perspective adopted in this book is a form of reverse Platonism (Foucault 1970) that 'establishes the general ontological priority of the event over the object' and 'the specific ontological priority of thought as an event over thought as any structure or system' (Faubion 1998: xxii). Educational present is not merely a temporal notion here. On the contrary it is what we are as educational subjects, and it is possible only within a social architecture, a scene that suspends time as mere succession and shows its constitutive spatiality.

As something that happens now in a field of multiple and conflicting forces, our present is what 'embodies the limitations of what we are now, what will be left behind, and what will be transformed' (Gilson 2014: 11). The scope of the book is to address educational evaluation as a constitutive trait of our present. Educational evaluation is conceived as a set of different and repeated events that pervasively link up contemporary educational institutions and perform a distinctive capacity of being effective in the ways in which, as educational subjects, we are governed and try to govern ourselves and the others (Foucault 1991; Dean 2010; Peters *et al.* 2009).

Multiple and interrelated processes are at stake here. In the scientific and political domains, at different scales, evaluation is increasingly framed as a universal good, as knowledge and practice that cannot be rejected or opposed, because of their promises of enlightenment and improvement, social betterment and democracy, increased efficiency and – paradoxically – equity, transparency and responsibilisation. In the space of the social and economic sciences, it has progressively acquired an authoritative voice as a distinct and powerful discipline that employs scientific procedures to produce knowledge on education and, more generally, 'the social'. Through the influential and pervasive action of global public and private players (international institutions and organisations, global consultants, philanthropies, networks of expertise and so on), evaluation and the related socio-material paraphernalia are naturalised as the reasonable, plausible and necessary way to produce veritable knowledge on the qualities of education, its subjects and outcomes and to govern the field. As an instrument of economic and social knowledge, evaluation is co-opted by multiple political rationalities, prominently liberalism, neoliberalism and neoconservatism (Dean 2007), to serve different political purposes and programmes of control. In fact, evaluation contributes to and is constitutive of various political projects that work across national boundaries and range from the neoliberalisation of education through the making of educational markets (Ryan and Cousins 2009), to the reconstruction of the organisational forms of public education and the education states according to New Public Management (Gunter et al. 2016). It is part of the reinvention of the governmentality of education through the establishment of new governmental technologies that reflect a liberal, neoliberal or neoconservative conception of the relations between the state, the market, the profession and rational action (Power 2011).

But how to relate to evaluation as a constitutive trait of our present? The attempt of this book is to enter in a particular relation to evaluation as a present educational reality, making of it an 'actuality' (Foucault 1997a). This means to enter in a relation to evaluation as something that counts for us as contemporary educational subjects, problematising it and breaking with the current concrete socio-historical conditions that define its historically contingent and yet apparently necessary forms (Foucault 1997b). The production of truth is a key focus here, in so far as the analysis of the present as actuality assumes an ethical form where the aim is to 'freeing thought from its tendency to sort images according to truth and falsity, to allow it to measure the effects they hold for subjectivity' (Tanke 2009: 127).

In this guise, this work is animated by the endeavour to trouble the apparent inevitability of a historically contingent mode of evaluation, moving from the 'desire to make out what is concealed under [our] precise, floating, mysterious, utterly' educational present (Foucault 2001: 443). My ambition here is to enter in relation to educational evaluation as a key part of our own historicity, to understand our fabrication within power/knowledge, and to learn the possibility of modifying our mode of existence (Ball 2017: 35). The aim is to enlarge the possibilities of going beyond the limits that the current historical forms of evaluation, as knowledge and practice, impose on us as educational subjects.

Problematisation is a key concept here, because it defines the envisaged form of criticism, and also represents the conceptual link between critique and the adopted analytical gaze (Koopman 2013). As a form of criticism, problematisation is intended as that particular attitude with the aim to dismantle objects as taken for granted fixed essences and to show how they have come to be, (re)making them as something that enters 'into the play of the true and the false and constitutes it as an object for thought' (Bacchi 2012: 4). Paraphrasing Foucault, this is a work of problematisation in so far as it has the ambition to allow for a step back from a historically contingent manner of evaluating educational systems, organisations, processes, professionals and outcomes, 'for putting it forward as a thought-object and interrogating it about its meaning, its conditions, and its ends' (Foucault 1997b: 117).

In such a perspective, as an experiment of a critical ontology of ourselves, this book is an act of criticism that calls into question evaluation as a regime of practice in the contemporary government of education because of its key role in delimiting what we can be, think, say and do as educational subjects. It is a movement to detach ourselves from a historically contingent evaluative practice, and to disclose 'the possibility of no longer being, doing, or thinking what we are, do, or think' (Foucault 1997a: 315–16) as subjects and objects of evaluation in education. The aim of the book is to create a space of problematisation from which critique and transformative action can occur, problematising what has acquired the status of a situation inherent in the natural order of things and creating cracks in what is commonly regarded as a secure foundation.

#### Clinique

Truth, or better, the relation between truth and subjectivity is the key analytical focus of the book as a clinical work. The analysis of the epistemological space of educational evaluation is located, in fact, in a wider attempt to problematise educational evaluation as a regime of practice, that is a relatively organised and systematised way of producing judgements on education, its subjects, processes and outcomes that occur through the recursive assemblage of a distinct set of forms of knowledge and a variety of related techniques and practical ways of thinking, knowing, acting and judging. More in details, the regime of practice of educational evaluation is conceived here as unfolding through the recursive intertwining between:

- evaluation as a mode of inquiry that defines a distinct set of objects, ways of dealing with them, aims and authoritative agents of expertise;
- a set of related and highly specific categorising and dividing practices that individuate and operate on the conducts of organisations, groups and individuals, and rely upon definite evaluative mechanisms, techniques and technologies;
- evaluation as ethical work, as practices of self-formation through which we turn ourselves into subjects and objects of evaluation (Foucault 1982b).

The concept of problematisation defines also the space of analysis of the book. As a key regime of practice in the governing of education, evaluation is connected to a set of powerful modes of problematisation that defines objects, rules of action and modes of relation to oneself (Foucault 1997a: 318). Evaluation responds and contributes to (re)produce them. These modes of problematisation relates both to the epistemological and political foundations of modern education as social practice and to its government, functioning and ends in modern society. In this respect, the book as clinical endeavour is not interested in exploring the origins, the fulfilment, the internal ends or even the teleology of contemporary educational evaluation, but rather to identify the epistemological and political paradoxes that are connected to those modes of problematisation that 'act as limits on who we are and who we might yet become' (Koopman 2014: 401) when we engage with practices of evaluation in education.

In this respect, the critical interrogation of educational evaluation as actuality can be regarded as a contribution to the problematising of the metanarratives of Enlightenment<sup>1</sup> and modernity (Olssen 2014: 216; Aronowitz and Giroux 1991). The assumption underlying the book is that educational evaluation is a regime of practice where we experience a singular inflection of the Kantian enigma, that is the tension between a world which is at the same time made and given, a task and an obligation, and an individual who is at the same time element of the world itself and actor/agent (Fimiani 1997).

This is a constitutive paradox of modernity and, as Foucault recognised, it is still giving a form to the possibility for thinking, being and acting in our present, in education as in other spheres of social life (Foucault 2002a).

Of course, this book is not an attempt to overcome such a paradox in a definitive or complete mode in relation to educational evaluation. It is not in my intentions, neither in my possibilities. Rather, this intends to be a modest contribution to the freeing of thought on educational evaluation from the tyranny of repetition, contributing to the critical literature that shows to what extent our structures of experience and our place in the process of knowing are creations of modernity and of the doctrinal elements of Enlightenment. In this respect, this work is situated in an intellectual and ethico-political space that unfolds starting from a double nostalgia produced by the Kantian enigma: (a) the aspiration to question the forms and limits of our knowledge, treating educational evaluation as contingent, specific, local and historical form of knowledge and (b) the desire to reflect on the ontology of ourselves, that is how we are made and made ourselves and the others as subjects and/or actors of evaluation.

The questioning of the forms and limits of our knowledge are carried on in this book starting from the choice of the relation between truth and subjectivity as the privileged focus of analysis. This cut is underpinned by a relational understanding of the nexus between truth, power and ethics. Moreover, it is premised on both the will to recapture something that is within the present (and not beyond or behind it) and an 'attentiveness to the delimiting conditions of the present' (Gilson 2014: 12). The attitude towards problematisation as mode of inquiry and the option for problematisation as the space of analysis converge here into the attempt to question the meanings, spaces and effects of historically contingent modes of evaluation, disentangling the coagulations between truth, the functioning of power and the making of the educational subjects (Ball 2016). The privileged focus on the epistemological space of educational evaluation responds to the goal to make the criteria that establish educational evaluation as a regime of practice more noticeable, undermining their taken-for-grantedness and opening up for 'examination both the complex relations that produced them and the effects of their operation' (Veyne 1997: 154). The aim of the book relates to the understanding of what makes the plurality of evaluations possible, the roots of their simultaneity and the 'soil that can nourish them all in their diversity and sometimes in spite of their contradictions' (Foucault 1997b: 118). It stands as a contribution to the understanding of the interferences between science, politics and ethics 'in the formation of [educational evaluation as] a scientific domain, a political structure, a moral practice' (ibid. 116).

In addressing the complex tangle between evaluation as a scientific domain, political technology and moral practice, one needs to find a starting point. Different analytical strategies are possible. Archaeology represents a possible choice. Its specific remit is to explore the historical conditions of possibility for the subjects and the objects of educational evaluation as enunciative field and to outline 'the site where truth names the constraints and modalities required of both subject and object to enter the positivity of reality and engage in a set of possible relations' (Deere 2014: 518). In relation to analysis of educational evaluation as regime of truth, archaeology is adopted here as an anti-method (Shiner 1982) that allows us to suspend 'what is taken as given, natural, necessary and neutral', to search for regularities in the formation of the enunciative field of educational evaluation and to challenge 'trans-historical schemas and teleologies which claim to be able to account for the truth of our [educational] present' (Dean 2010: 3–4).

#### Inhabiting other evaluative spaces

The critical ontology of ourselves and, within it, the questioning of the forms and limits of educational evaluation through archaeology are the poles that organise the space and scope of this book, together with an ethical disposition that is carefully normative, emancipatory and experimental. Archaeology is what allows here a double movement through an activity of cutting with an ambition to interrupt and divide our educational present as a time of repetition and contribute to a movement beyond the limits of the present. It is an activity of writing on educational evaluation as part of the educational present in a field of power relations and political struggle. The aim is to point out that there are other reasonable options.

The archaeological work stands as a preliminary and yet necessary act of freedom that reflects on the consequences of educational evaluation as a set of rules to produce truth on educational value and allows to interrogate our educational present through a double detachment: (a) from how we are governed and govern ourselves and the others through evaluation in the field of education; and (b) from the conflict between evaluative theories, models and ideas. The question relates to what are the current problematisations that have historically constructed the problem of evaluation in education and set out the conditions in which possible responses to this problem can be given, and what are their constitutive elements that need to be put under scrutiny in order to think differently about educational evaluation.

#### **Ethics**

Few more words are needed in order to clarify what I mean with emancipatory and experimental research ethics here. The analysis of this book is underpinned by a 'sober and careful' kind of normativity (Fimiani 1997: 21), where the contemporary discursive and practical forms of educational evaluation will be judged 'against an ideal of a minimum of domination' and against their relative capacity to recognise and promote difference (Foucault 1997c: 298). Again, the issue of government is pivotal here. In this respect, this book intends to

represent an emancipatory tool that contributes to the 'constitution of ourselves as autonomous [educational] subjects' (Foucault 1997a: 313), where autonomy is related to the growth of capabilities disconnected from the intensification of power relations that lead to discipline, normalisation and over-regulation. This implies to exit from a condition of 'excess of authority', challenging 'effects of domination which may be linked to structures of truth or institutions entrusted with truth' (Foucault 1997c: 295). It stands as a tool to cultivate the 'art of not being governed like that and at that cost' (Foucault 2007: 45) and to 'refuse everything that might present itself in the form of a simplistic and authoritarian alternative' (Foucault 1997a: 313).

So, it is not my intention to theorise against or argue for a radical opposition to any form of educational evaluation, neither this is a plea for radical freedom, absolute spontaneity or the eliciting of any form of institutional constraining and accountability. This is not an attempt to be 'for' or 'against' educational evaluation or any specific evaluative approach, theory or model. Neither, the book is a gesture of rejection, or a contribution to the establishment of clear dividing lines between the good and bad educational evaluation or, more, the drawing of another inside/outside divide to determine what good and bad elements there may be in contemporary educational evaluation. Thinking of educational evaluation as a problem entails to admit that there isn't, probably, 'any politics that can contain the just and definitive solution' (Foucault 1997b: 114), and at the same time struggling to challenge evaluative politics in education, highlighting paradoxes and raising questions, asking politics itself to answer these questions, being aware that no complete answers are possible. Recalling Foucault's words (ibid.), it is a question, then, of thinking about the relations of educational evaluation to education politics, in the attempt to elaborate and pose political questions that may make possible the future formation of a collective, a 'we' that could also become a potential community of action.

Rather, this book is an attempt to carry on an analysis of ourselves as beings who are historically determined, to a certain extent, by educational evaluation and to search for a way out from the imposed alternative between acceptance and criticising. As an exercise of freedom that seeks to 'denaturalise' what is given, necessary and obligatory, it is an act of belonging and rupture, which critically contests, in particular, the status of the subject and the mode of individualisation proper to contemporary educational evaluation. Thus, the aim of this book is to enhance an extension of our participation in the present evaluation systems (see Foucault 1977b: 230). Criticism is here a positive act of imagination, a productive and not a destructive endeavour. It is emancipatory in so far as it aspires to increase freedom, making available resources to change our relations to truth and power through a negative use of our capacities for reasoning/thinking. Freedom is intended here as the ability to modify ourselves, to produce ourselves exploring limits to authorised forms of subjectivity and 'questioning any received standpoint' but 'in the context

of the social influences at work on us' and 'drawing on the resources society makes available to us' (Bevir 1999: 76). Criticism and an emancipatory ethics meets archaeology as analytics here in so far as 'one can criticize [...], but one can only do so by playing a certain game of truth' (Foucault 1997c: 295), where game means here the 'set of rules by which truth is produced, [...] a set of procedures that lead to a certain result, which, on the basis of its principles and rules of procedure, may be considered valid or invalid' (ibid. 297).

As an attempt to play a game of truth, thus, this book is experimental and oriented towards the crossing over of the limits imposed on us by educational evaluation as scholarship and governmental practice that creates a sociohistorical distinctive set of conditions of our thinking and acting, and ultimately for the government of ourselves and the others. As such, it is a fiction, an attempt to soliciting an ethical enthusiasm and agonism (Oksala 2012) and produce an interference between our reality and our past through defamiliarisation and disaggregation, resulting in the opening up of a possible future and a transformation of the relation which we have with ourselves and the world (O'leary 2006: 102).

If the writing of this book is thus 'in itself a form of action or intervention' (Dean 2010: 6) in the milieu of contemporary education, its privileged interlocutors are those teachers, head teachers, educators, students, parents, researchers or administrators whose actuality is permeated by evaluation and who, in relation to that, experience a series of discomforts. The first and major discomfort relates to the perception of the normalising effects of an evidence-based, standardising and performance-oriented evaluative practice that presents itself to us as necessary, obvious, naturally benign and, at the same time, performs the power to silence critical voices and/or to marginalise them into positions that appear as ethically untenable (against evaluation, against improvement, against evidence; Biesta 2007; Hammersley 2013). The second discomfort is related to the difficulties to challenge a historically contingent truth on evaluation that establishes itself as a self-evident and undisputable, and to find alternative ways of doing evaluation that do not reproduce the reductionist and normalising effects of the dominant discourse and technologies (Dahler-Larsen 2012). The third discomfort is related to the rational and emotional acknowledgment of the violence exerted on us as educational subjects by an expanding evaluative machinery that forces us to 'set aside our personal beliefs and commitments' and 'to live an existence of calculation' (Ball 2003: 215).

Facing these discomforts, that I entirely share as teacher and researcher, this book stands as an experiment suspended in between a molecular theorising (the acknowledgement to be part of a plural and dispersed intellectual production) and the ambition to contribute to enact a generalising experiencing. The ambition is to produce emancipatory and liberating effects through a mobilising discursive modality that challenges the hegemonic effect of a historically contingent regime of evaluative truth and attempts to re-enact the expelled diversity.

#### **Book overview**

The book is organised in eight chapters. Chapter 1 presents the main traits archaeology as method, locating it within the framework of an analytics of government and a general sensibility towards the governmentality studies. The chapter draws on Foucault's works and the main literature in the field to present archaeology as a generative method to analyse enunciative fields and regimes of truth and, relatedly, to contribute to a critical ontology of ourselves. The chapter argues that archaeology provides us with a set of distinct analytical strategies to address the analysis of the fields of visibility and forms of rationality that organise the ways of doing things and the freedom with which human beings act within specific regimes of government. Chapter 2 stands as a preliminary step towards the archaeological analysis, addressing educational evaluation as an enunciative field and suspending its immediate forms of unity. Educational evaluation is analysed as a form of rationality, a way of seeing and perceiving, a governmental techne and a mode of identity formation. The chapter discusses this enunciative space as the field of investigation of the book and its conditions of possibility as the specific object of analysis.

Drawing on Foucault's analysis in The Order of Things (2002a), Chapter 3 locates educational evaluation in a tridimensional epistemological space, interpreting it as a mode of inquiry that: (a) has the project to establish itself, at different levels, a mathematical formalisation; (b) proceeds through models and/or concepts transferred from biology, political economy and the study of language and (c) explores some distinctive empirical manifestations of 'that mode of being of [modern man] which philosophy is attempting to conceive at the level of radical finitude' (ibid. 379). The chapter also highlights how the rise of educational evaluation is strictly related to the complex tangle of governmental processes that develop around the interrelationship between the problem of the government of population, the foundation of the modern state, statistics and expertise. The analysis deals with the inescapable relation that educational evaluation has with mathematics, numbers and the tension towards the application of mathematics to the empirical domain. Nevertheless, the chapter warns against the risk of thinking to numbers as devices with some intrinsic characters and emphasises the need to address the regimes of language and value or, to put it another way, the political rationalities and regimes for the production, delimitation and authorisation of truth within which numericisation occurs. The need is highlighted for an archaeological analysis of the epistemological figures of labor, life and language (and their transferences), which are interpreted as conditions of possibility for the emergence of educational evaluation as an enunciative field and a governmental practice.

Chapter 4 starts the archaeological analysis of educational evaluation as an enunciative field in search of its regularities as rules of formation and relations between statements. It focuses on those regularities that can be understood as the effect of a distinct set of processes of transference from biology through

organisational theory as a concomitant enunciative field. Using the foucauldian tree of enunciative derivation and an analytics of interdiscursive configurations as heuristics, the chapter discusses the role of the figures of living system and organisation as grids of specification that constitutes the objects of the evaluative analysis and the related analytical strategies. The chapter discusses how these epistemic traits determine the kind of relationships that evaluative knowledge in education is naturally brought to seek out at the analytical level and to establish at the normative level. Adopting a similar strategy, Chapter 5 addresses the regular occurrence of further grids of specification and methods of characterisation that allow valuing, diagnosis and ordering as practices that are functional to the management of the educational evaluand. The chapter expands the archaeological analysis looking at the figure of 'labour as production' as a second regular grid of specification that constitutes the objects of the evaluative analysis and provides methods and analytical strategies for their characterisation. It understands such a regularity as the effect of a distinct set of transferences from political economy through the mediation of management theory as a concomitant enunciative field. Chapter 6 shows how it is possible to recognise in the interstices of the paradoxes produced by the transferences from biology and political economy a further set of regularities in the enunciative field, where the evaluand is formed as pertaining to the domain of meaning. In particular, the chapter discusses the regular occurrence of the figure of system of meaning as a third key grid of specification in the field of educational evaluation, interpreting it as the analogical and differentiating effect of a distinct set of transferences from the study of language through the mediation of sociology as concomitant enunciative field. It discusses how, through those transferences, the evaluand is located within a paradoxical time made of discontinuity and continuity. Chapters 4 to 6 all end outlining how the described epistemic transferences make thinkable a particular kind of homo of evaluation (hereafter HoE) and historicity of the objects/subjects of evaluation as learning, productive and sense-making entities. Those entities live in a space-time where forces that drive towards the fulfilling of a function, productive process or understanding struggle against, in an ongoing dialectic, the dangers of ineffectiveness, scarcity or insignificance within determined and determining conditions of existence.

Building on the analyses in the previous chapters, Chapter 7 delimits the archaeological quadrilateral of educational evaluation, that is the epistemic space within which it finds its conditions of possibility as a mode of inquiry, governmental practice and ethics. Such a quadrilateral, it is argued, articulates itself around the figure of the HoE, a particular inflection of modern man. The chapter analyses the key traits of the HoE, his character as empirical-transcendental doublet and his perennial oscillation between the promises of Enlightenment and fulfilment. The analysis emphasises how, inhabiting such an epistemic space, educational evaluation stands as: (a) a paradoxical science of truth, entrapped in a perennial oscillation between an ingenuous

reduction of truth to the empirical and a prophetical promise; (b) a modern ethic that does not formulate explicitly a morality of effectiveness or improvement, in so far as the imperative is located within the evaluative thought and its movement towards the apprehension of the unthought and (c) a dialectical and teleological mode of inquiry that assumes a conception of time as fulfilment that can be known as a succession and has an inherently teleological nature (Foucault 2002a).

Moreover, the chapter reconnects the archaeological terrain to the problem of government, showing how the configuration of this epistemic space produces a distinct set of political paradoxes and makes it possible to understand the complexities of the relationships between educational evaluation and a distinct set of political rationalities, namely liberalism, neoliberalism and risk, that co-opt the HoE and give him particular kinds of inflections.

The concluding chapter presents some perspectival considerations on the possibility to think educational evaluation otherwise and to overcome the shortcuts, reductionisms, paradoxes and frustrations that the current doxa of educational evaluation produces in the scholarly, professional, policy and public debate. I argue that the archaeological analysis invites us to explore the interstices of the empirical/transcendental paradox and to engage with the transgression of its anthropological postulate. The chapter identifies two related intellectual paths of reflection: to free the HoE from the utopia of fulfilment and to historicise him (Popkewitz and Brennan 1997). In turn, this implies practicing three distinct epistemological ruptures: (a) rethinking the spatial dimension in educational evaluation, focusing on the constructing of identities through the formation of social spaces; (b) thinking of time as a multiplicity of strands moving with an uneven flow and (c) escaping from the enduring evolutionary principle that results in the centrality of the logic of comparison and the tendency to create differentiation drawing on some norms of unity (Popkewitz 1997). The book ends with the proposal to understand evaluation as a way of constructing critical histories about how our subjectivities are formed, opening up in front of a subject who reflects on his educational activity a truly free space where his search for a mode of being, acting and thinking is not overdetermined by the tyranny of what is defined as an impossible but unavoidable task.

#### Note

1. This is not in any way an anti-Enlightenment work and endeavour. On the contrary, my aspiration is to present this book as an attempt to practice Enlightenment as an ethical attitude that needs to be permanently reactivated, as the root for a type of interrogation that 'simultaneously problematizes man's relation to the present, man's historical mode of being, and the constitution of the self as an autonomous subject' (Foucault 1997a: 312). As Foucault has repeatedly argued, we are free in so far as we adopt the ethos of Enlightenment as permanent critique of our historical era (Bevir 1999: 77).

#### References

- Abbott, A. (2001) Time Matters: On Theory and Method, Chicago, IL: University of Chicago Press.
- Alkin, M.C. (2011) Evaluation Essentials. From A to Z, New York: The Guilford Press.
- Aronowitz, S. and Giroux, H. (1991) Postmodern Education: Politics, Culture, and Social Criticism, Minneapolis, MN: University of Minnesota Press.
- Bacchi, C. (2012) Why study problematizations? Making politics visible, Open Journal of Political Science, 2 (1), 1–8.
- Ball, S.J. (2003) The teacher's soul and the terrors of performativity, Journal of Education Policy, 18 (2), 215–228.
- Ball, S.J. (2006) Education Policy and Social Class. The Selected Works of Stephen Ball, London and New York: Routledge.
- Ball, S.J. (2012) Foucault, Power, and Education, London and New York: Routledge.
- Ball, S.J. (2015) Education, governance and the tyranny of numbers, Journal of Education Policy, 30 (3), 299–301.
- Ball, S.J. (2016) Subjectivity as a site of struggle: Refusing neoliberalism? British Journal of Sociology of Education, 37 (8), 1129–1146.
- Ball, S.J. (2017) Foucault as Educator, Cham: Springer.
- Ball, S.J., Junemann, C. and Santori, D. (2017) Edu. Net: Globalisation and Education Policy Mobility, London: Routledge.
- Barad, K. (2003) Posthumanist performativity: Toward an understanding of how matter comes to matter, Signs: Journal of Women in Culture and Society, 28 (3), 801–831.
- Barry, A., Osborne, T. and Rose, N. (eds) (1996) Foucault and Political Reason: Liberalism, Neo-Liberalism, and Rationalities of Government, Chicago, IL: University of Chicago Press.
- Bazzicalupo, L. (2018) La Critica non normativa nel pensiero francese contemporaneo, I Castelli di Yale, 6 (1), 19–38.
- Bevir, M. (1999) Foucault and critique: Deploying agency against autonomy, *Political Theory*, 27 (1), 65–84.
- Bhola, H.S. (2002) Developing discourses on evaluation. In Stufflebeam, D.L., Madaus, G.F. and Kellaghan, T. (eds) Evaluation Models: Viewpoints on Educational and Human Services Evaluation (second edn), Boston, MA: Kluwer Academic Publishers, 383–394.
- Bhola, H.S. (2003) Social and cultural contexts of educational evaluation: A global perspective. In Kellaghan, T., Stufflebeam, D.L. and Wingate, L. (eds) *International Handbook of Educational Evaluation*, Dordrecht: Kluwer Academic Publishers, 397–415.
- Biesta, G. (2007) Why "what works" won't work: Evidence-based practice and the democratic deficit in educational research, *Educational Theory*, 57 (1), 1–22.

- Boltanski, L. (2011) On Critique: A Sociology of Emancipation, Cambridge: Polity Press.
- Borer, V.L. and Lawn, M. (2013) Governing education systems by shaping data: From the past to the present, from national to international perspectives, *European Educational Research Journal*, 12 (1), 48–52.
- Bouchet, D. (2007) The ambiguity of the modern conception of autonomy and the paradox of culture, *Thesis Eleven*, 88 (1), 31–54.
- Brisolara, S. and Seigart, D. (2012) Feminist evaluation research. In Hesse-Biber, S.N. (ed) *Handbook of Feminist Research: Theory and Praxis*, London: Sage, 290–312.
- Brown, W. (2015) *Undoing the Demos: Neoliberalism's Stealth Revolution*, Cambridge, MA: MIT Press.
- Burchell, G., Gordon, C. and Miller, P. (eds) (1991) *The Foucault Effect: Studies in Governmentality*, Chicago, IL: The University of Chicago Press.
- Butler, J. (1997) Excitable Speech: A Politics of the Performative, London: Routledge.
- Campbell, D.T. (1969) Reforms as experiments, *American Psychologist*, 24 (4), 409–429.
- Campbell, D.T. and Stanley, J. (1963) Experimental and Quasi Experimental Designs for Research, Chicago, IL: Rand-McNally.
- Canguilhem, G. (2006) The death of man, or exhaustion of the cogito? In Gutting, G. (ed) *The Cambridge Companion to Foucault* (second edn), Cambridge: Cambridge University Press, 74–94.
- Carlson, D.L. (2009) Producing entrepreneurial subjects: Neoliberal rationalities and portfolio assessment. In Peters, M.A., Besley, A.C., Olssen, M., Maurer, S. and Weber, S. (eds) *Governmentality Studies in Education*, Rotterdam: Sense Publishers, 257–270.
- Castel, R. (1991) From dangerousness to risk. In Burchell, G., Gordon, C. and Miller, P. (eds) *The Foucault Effect: Studies in Governmentality*, Chicago, IL: Chicago University Press, 281–298.
- Christie, C.A. and Alkin, M.C. (2008) Evaluation theory tree re-examined, *Studies in Educational Evaluation*, 34 (3), 131–135.
- Clarke, J. (2008) Performance paradoxes: The politics of evaluation in public services, In Davis, H. and Martin, S. (eds) *Public Services Inspection in the UK. Research Highlights in Social Work (50)*, London: Jessica Kingsley Publishers, 120–134.
- Clarke, J. (2009) Governance puzzles. In Budd, L. and Harris, L. (eds) eGovernance: Managing or Governing? London: Routledge, 29–52.
- Cook, T.D. (2002) Randomized experiments in educational policy research: A critical examination of the reasons the educational evaluation community has offered for not doing them, Educational Evaluation and Policy Analysis, 24 (3), 175–199.
- Cronbach, L.J. (1982) Designing Evaluations of Educational and Social Programs, San Francisco, CA: Jossey-Bass.
- Cronbach, L.J., Ambron, S.R., Dornbusch, S.M., Hess, R.D., Hornik, R.C., Phillips, D.C., Walker, D.F. and Weiner, S.S. (1980) Toward a Reform of Program Evaluation: Aims, Methods, and Institutional Arrangements, San Francisco, CA: Jossey-Bass.
- Dahler-Larsen, P. (2005) Evaluation and public management. In Ferlie, E., Lynn L.E. and Pollitt, C. (eds) The Oxford Handbook of Public Management, Oxford/New York: Oxford University Press.
- $Dahler-Larsen, P.\ (2012)\ \textit{The Evaluation Society}, Stanford, CA: Stanford\ University\ Press.$
- Davidson, A. (1997) Foucault and His Interlocutors, Chicago and London: University of Chicago Press.
- Davidson, E.J. (2005) Evaluation Methodology Basics: The Nuts and Bolts of Sound Evaluation, Thousand Oaks, CA: Sage.

- De Lima, I.V. (2010) Foucault's Archaeology of Political Economy, New York: Palgrave-Macmillan.
- Dean, M. (1994) Critical and Effective Histories Foucault's Methods and Historical Sociology, London and New York: Routledge.
- Dean, M. (2007) Governing Societies: Political Perspectives on Domestic and International Rule,
   London: McGraw-Hill Education.
   Dean, M. (2010) Governmentality. Power and Rule in Modern Societies (second edn), London:
- Sage.
- Deere, D.T. (2014) Truth. In Lawlor, L. and Nale, J. (eds) *The Cambridge Foucault Lexicon*, New York: Cambridge University Press, 517–527.
- Defert, D. and Ewald, F. (eds) (2001) Dits et Écrits 1954–1988. Vol. II, 1976–1988 Michel Foucault, Paris: Gallimard.
- Deleuze, G. (1988) Foucault, Minnesota, MN: University of Minnesota Press.
- Deleuze, G. (1992) What is a dispositif? In *Michel Foucault: Philosopher* (translated by Armstrong, T.J.), New York: Harvester Wheatsheaf, 159–168.
- Desrosieres, A. (2010) A politics of knowledge-tools: The case of statistics. In Sangolt, L. (ed) *Between Enlightenment and Disaster: Dimensions of the Political Use of Knowledge*, Brussels: Peter Lang, 111–129.
- Desrosieres, A. (2011) The economics of convention and statistics: The paradox of origins, *Historical Social Research*, 36 (4), 64–81.
- Dreyfus, H.L. and Rabinow, P. (1982) *Michel Foucault. Beyond Structuralism and Hermeneutics* (second edn), Chicago, IL: The University of Chicago Press.
- Eisner, E.W. (1994) *The Educational Imagination* (third edn), Upper Saddle River, NJ: Prentice-Hall.
- Eisner, E.W. (2003) Educational connoisseurship and educational criticism: An arts-based approach to educational evaluation. In Kellaghan, T., Stufflebeam, D.L. and Wingate, L. (eds) *International Handbook of Educational Evaluation*, Dordrecht: Kluwer Academic Publishers, 153–166.
- Espeland, W.N. and Sauder, M. (2012) The dynamics of indicators. In Davis, K.E., Fisher, A., Kingsbury, B. and Merry, S.E. (eds) Governance by Indicators, Oxford: Oxford University Press, 86–109.
- European Commission/EACEA/Eurydice, (2015) Assuring Quality in Education: Policies and Approaches to School Evaluation in Europe. Eurydice Report, Luxembourg: Publications Office of the European Union.
- Ewald, F. (1990) Norms, discipline and the law, Representations, 30, 138–161.
- Faubert, V. (2009) School Evaluation: Current Practices in OECD Countries and a Literature Review, Education Working Paper 42, Paris: OECD.
- Faubion, J.D. (ed) (1998) Introduction. In Foucault, M., Aesthetics, Method, and Epistemology. Essential Works of Foucault, 1954–1984, Volume Tivo, New York: New Press.
- Felouzis, G. and Hanhart, S. (2011) Politiques éducatives et évaluation: nouvelles tendances, nouveaux acteurs. In Felouzis, G. and Hanhart, S. (eds) Gouverner l'Education par les Nombres? Usages, Débats et Controversies, Brussels: De Boeck, 7–31.
- Fimiani, M. (1997) Foucault e Kant: Critica, Clinica, Etica, Napoli: La città del sole.
- Finger, G. and Russell, N. (1994) School evaluation using fourth generation evaluation: A case study, *Evaluation Journal of Australasia*, 6 (1), 43–54.
- Foucault, M. (1970) Theatrum philosophicum, Critique, 282, 885–908.
- Foucault, M. (1970/1994) The Order of Things: An Archaeology of the Human Sciences (a translation of Les mots et le choses), New York: Vintage Books.
- Foucault, M. (1971) Orders of discourse, Social Science Information, 10 (2), 7-30.

- Foucault, M. (1977a) Nietzsche, Genealogy, History. In Bouchard, D.F. and Simon, S. (eds) Language, Counter-Meaning, Practice: Selected Essays and Interviews, Ithaca, NY: Cornell University Press, 139–164.
- Foucault, M. (1977b) Revolutionary action: 'Until now'. In Bouchard, D.F. (ed) Language, Counter-Memory, Practice. Selected Essays and Interviews, New York: Cornell University Press, 221–234.
- Foucault, M. (1980) Power/Knowledge: Selected Interviews and Other Writings by Michel Foucault, 1972–1977 (edited by Gordon C.), New York: Pantheon Books.
- Foucault, M. (1981) Questions of method: An interview with Michel Foucault, *Ideology&Consciousness*, 8, 3–14.
- Foucault, M. (1982a) On the genealogy of ethics. In Dreyfus, H.L. and Rabinow, P. *Michel Foucault. Beyond Structuralism and Hermeneutics* (second edn), Chicago, IL: The University of Chicago Press, 229–252.
- Foucault, M. (1982b) The subject and power, Critical Inquiry, 8 (4), 777–795.
- Foucault, M. (1983) Afterword: The subject and power. In Dreyfus, H. and Rabinow, P. (eds) Michel Foucault: Beyond Structuralism and Hermeneutics (second edn), Chicago, IL: Chicago University Press, 208–226.
- Foucault, M. (1984) *The Foucault Reader* (edited by Rabinow P.), New York: Pantheon Books. Foucault, M. (1985) *The History of Sexuality, Vol. 2: The Use of Pleasure*, New York: Pantheon
- Foucault, M. (1988) Politics and reason. In Kritzman L.D. (ed) *Politics, Philosophy, Culture:* Interviews and Other Writings 1977–1984, New York: Routledge.
- Foucault, M. (1988) Truth, power, self: An interview with Michel Foucault. In Martin, L.H., Gutman, H. and Hutton, P. (eds) *Technologies of the Self: A Seminar with Michel Foucault*, London: Tavistock, 9–15.
- Foucault, M. (1991) Governmentality. In Burchell, G., Gordon, C. and Miller, P. (eds) *The Foucault Effect: Studies in Governmentality*, Chicago, IL: The University of Chicago Press, 87–104.
- Foucault, M. (1994) Le souci de la vérité. In *Dits et Écrits 1954–1988: IV 1980–1988*, Paris:
- Foucault, M. (1995) Discipline and Punish: the Birth of the Prison, New York: Vintage Books.
- Foucault, M. (1997a) What is enlightenment? In Rabinow P. (ed) *Ethics: Subjectivity and Truth. Essential Works* 1956–1984, Vol. 1, New York: New Press, 303–319.
- Foucault, M. (1997b) Polemics, politics, and problematizations. An Interview with Michel Foucault. In Rabinow P. (ed) *Ethics: Subjectivity and Truth. Essential Works 1956–1984, Vol. 1*, New York: New Press, 111–119.
- Foucault, M. (1997c) The ethics of the concern for self as a practice of freedom. In Rabinow P. (ed) *Ethics: Subjectivity and Truth. Essential Works 1956–1984, Vol. 1*, New York: New Press, 281–301.
- Foucault, M. (1997d) Candidacy presentation: College de France, 1969. In Rabinow P. (ed) *Ethics: Subjectivity and Truth. Essential Works* 1956–1984, Vol. 1, New York: New Press, 5–10.
- Foucault, M. (1998) What is an author? In Foucault, M., Aesthetics, Method, and Epistemology. Essential Works of Foucault, 1954–1984, Volume Tivo (edited by Faubion J.D.), New York: New Press, 205–222.
- Foucault, M. (2001) *Power. Essential Works of Foucault 1954–1984, Vol. 3* (edited by Faubion J.D.), New York: New Press.
- Foucault, M. (2002a) The Order of Things. An Archaeology of the Human Sciences, London: Routledge.

- Foucault, M. (2002b) The Archaeology of Knowledge, London: Routledge.
- Foucault, M. (2003) Society Must Be Defended. Lectures at the Collège de France 1975–76, New York: Picador.
- Foucault, M. (2006) History of Madness, Abingdon: Routledge.
- Foucault, M. (2007) What is critique? In *The Politics of Truth*, New York: Semiotext(e), 41–81.
- Foucault, M. (2008) The Birth of Biopolitics. Lectures at the Collège de France 1978–79, Basingstoke: Palgrave Macmillan.
- Foucault, M. (2009) Security, Territory and Population. Lectures at the College de France 1977–1978, New York: Palgrave Macmillan.
- Friedman, M. (1953) Essays in Positive Economics, Chicago, IL: University of Chicago Press.
- Gambardella, D. and Lumino, R. (2015) Evaluative Knowledge and Policy Making: Beyond the Intellectual Virtus of Techne, Milano: McGraw-Hill education.
- Gane, N. (2014) Sociology and neoliberalism: A missing history, *Sociology*, 48 (6), 1092–1106.
- Gannon, S. (2013) My school redux: Re-storying schooling with the My School website, Discourse: Studies in the Cultural Politics of Education, 34 (1), 17–30.
- Gilson, E. (2014) Event. In Lawlor, L. and Nale, J. (eds) *The Cambridge Foucault Lexicon*, Cambridge: Cambridge University Press, 143–146.
- Goldstein, H. and Moss, G. (2014) Knowledge and numbers in education, *Comparative Education*, 50 (3), 259–265.
- Gorur, R. and Koyama, J.P. (2013) The struggle to technicise in education policy, *The Australian Educational Researcher*, 40 (5), 633–648.
- Grek, S. (2009) Governing by numbers: The PISA 'effect' in Europe, *Journal of Education Policy*, 24 (1), 23–37.
- Grek, S., Lawn, M., Lingard, B. and Varjo, J. (2009) North by northwest: Quality assurance and evaluation processes in European schooling, *Journal of Education Policy*, 24 (2), 121–133.
- Grimaldi, E. (2015) What future for educational research in Europe? Political, epistemological and ethical challenges, *European Educational Research Journal*, 14 (1), 49–55.
- Grimaldi, E. and Barzanò, G. (2014) Making Sense of the Educational Present: Problematising the merit turn in the Italian eduscape, *European Educational Research Journal*, 13 (1), 26–46.
- Guba, E. (1969) The failure of educational evaluation, Educational Technology, 9 (5), 29–38.
- Guba, E. and Lincoln, Y.S. (1989) Fourth Generation Evaluation, London: Sage.
- Guba, E. and Lincoln, Y.S. (2004) The roots of fourth generation evaluation: Theoretical and methodological origins. In Alkin, M. (ed) *Evaluation Roots: Tracing Theorists' Views and Influences*, Thousand Oaks, CA: Sage, 225–242.
- Gunter, H.M., Grimaldi, E., Hall, D. and Serpieri, R. (eds) (2016) New Public Management and the Reform of Education: European Lessons for Policy and Practice, London: Routledge.
- Gutting, G. (1989) Michel Foucault's Archaeology of Scientific Reason: Science and the History of Reason, Cambridge: Cambridge University Press.
- Gutting, G. (2014) Archaeology. In Lawlor, L. and Nale, J. (eds) *The Cambridge Foucault Lexicon*, Cambridge: Cambridge University Press, 13–19.
- Hacking, I. (1975) The Emergence of Probability, Cambridge: Cambridge University Press.
- Hacking, I. (1986) The archaeology of Foucault. In Couzens Hoy, D. (ed) Foucault: A Critical Reader, Cambridge, MA: Basil Blackwell, 27–40.
- Hacking, I. (1992) "Style" for historians and philosophers, Studies in the History and Philosophy of Science, 23 (1), 1–20.
- Hammersley, M. (2013) The Myth of Research-Based Policy and Practice, London: Sage.

- Han, B. (2006) The analytic of finitude and the history of subjectivity. In Gutting, G. (ed) The Cambridge Companion to Foucault (second edn), Cambridge: Cambridge University Press, 176–209.
- Harvey, C. (2010) Making hollow men, Educational Theory, 60 (2), 189–201.
- Hayek, F. (1948) Individualism and Economic Order, Chicago: University of Chicago Press.
- Hayek, F. (1952) The Counter-Revolution of Science, Indianapolis, IN: Liberty Fund.
- Hayek, F. (1976) Law, Legislation and Liberty, Vol. 2: The Mirage of Social Justice, London: Routledge and Kegan Paul.
- Hayek, F. (1979) Law, Legislation and Liberty, Vol. 3: The Political Order of a Free People, London: Routledge and Kegan Paul.
- Henriques, J., Hollway, W., Urwin, C., Venn, C. and Walkerdine, V. (1984) *Changing the Subject: Psychology, Social Regulation, and Subjectivity*, London: Methuen.
- Hopkins, D. and West, M. (2002) Evaluation as school improvement: A developmental perspective from England. In Nevo, D. (ed) School-Based Evaluation: An International Perspective (Advances in Program Evaluation, Vol. 8), Bingley: Emerald Group Publishing Limited, 89–112.
- House, E.R. (1978) Assumptions underlying evaluation models, *Educational Researcher*, 7 (3), 4–12
- House, E.R. and Howe, K. (1999) Values in Evaluation and Social Research, Thousand Oaks, CA: Sage.
- Hunter, I. (1994) Rethinking the School: Subjectivity, Bureaucracy, Criticism, New York: Allen & Unwin.
- Hunter, I. (1996) Assembling the school. In Barry, A., Osborne, T. and Rose, N. (eds) Foucault and Political Reason: Liberalism, Neo-Liberalism, and Rationalities of Government, Chicago, IL: University of Chicago Press, 143–166.
- ILO (2011) A Skilled Workforce for Strong, Sustainable and Balanced Growth: A G20 Training Strategy, Geneva: International Labour Office.
- Johnson, P. (2006) Unravelling Foucault's 'different spaces', *History of the Human Sciences*, 19 (4), 75–90.
- Joint Committee on Standards for Educational Evaluation (1994) *The Program Evaluation Standards. How to Assess Evaluations of Educational Programs*, Thousand Oaks, CA: Sage.
- Kellaghan, T., Stufflebeam, D.L. and Wingate, L. (eds) (2003) *International Handbook of Educational Evaluation*, Dordrecht: Kluwer Academic Publishers.
- King, J., Morris, L. and Fitzgibbon, C. (1987) *How to Assess Program Implementation*, Thousand Oaks, CA: Sage.
- Kitchin, R., Lauriault, T. and McArdle, G. (2015) Knowing and governing cities through urban indicators, city benchmarking and real-time dashboards, *Regional Studies, Regional Science*, 2 (1), 6–28.
- Kologlugil, S. (2010) Michel Foucault's archaeology of knowledge and economic discourse, *Erasmus Journal for Philosophy and Economics*, 3 (2), 1–25.
- Koopman, C. (2013) Genealogy as Critique: Problematization and Transformation in Foucault and Others, Bloomington, IN: Indiana University Press.
- Koopman, C. (2014) Problematization. In Lawlor, L. and Nale, J. (eds) *The Cambridge Foucault Lexicon*, New York: Cambridge University Press, 517–527.
- Kuji-Shikatani, K., Gallagher, M.J., Franz, R., and Börner, M. (2015) Leadership's role in building the education sector's capacity to use evaluative thinking. In Patton, M.Q., McKegg, K. and Wehipeihana, N. (eds) *Developmental Evaluation Exemplars: Principles in Practice*, New York: Guilford Publications, 252–270.

- Landri, P. (2014) Governing by standards: The fabrication of austerity in the Italian education system, Education Inquiry, 5 (1), 24–57.
- Landri, P. (2018) Digital Governance of Education: Technology, Standards and Europeanization of Education, London: Bloomsbury Publishing.
- Lascoumes, P. and Le Galès, P. (2007) Introduction: Understanding public policy through its instruments—From the nature of instruments to the sociology of public policy instrumentation, *Governance*, 20 (1), 1–21.
- Latour, B. (1986) Visualization and cognition. Thinking with eyes and hands, *Knowledge and Society*, 6 (6), 1–40.
- Lawn, M. (2013a) The rise of data in education. In Lawn, M. (ed) *The Rise of Data in Education Systems: Collection, Visualization and Use*, Oxford: Symposium Books, 7–25.
- Lawn, M. (2013b) The internationalization of education data: Exhibitions, tests, standards and associations. In Lawn, M. (ed) *The Rise of Data in Education Systems: Collection, Visualization and Use*, Oxford: Symposium Books, 11–25.
- Lawn, M. and Segerholm, C. (2011) Europe through experts and technologies. In Ozga J., Dahler-Larsen, P., Segerholm, C. and Simola, H. (eds) Fabricating Quality in Education: Data and Governance in Europe, London: Routledge, 32–46.
- Legg, S. (2005) Foucault's population geographies: Classifications, biopolitics and governmental spaces, *Population Space and Place*, 11 (3), 137–156.
- Lemke, T. (2007) An indigestible meal? Foucault, governmentality and state theory, *Distinktion: Scandinavian Journal of Social Theory*, 8 (2), 43–64.
- Leonard, S.N., Fitzgerald, R.N. and Riordan, G. (2016) Using developmental evaluation as a design thinking tool for curriculum innovation in professional higher education, *Higher Education Research & Development*, 35 (2), 309–321.
- Lincoln, Y.S. (2002) Constructivist knowing, participatory ethics and responsive evaluation: A model for the 21st century. In Stufflebeam, D.L., Madaus, G.F. and Kellaghan, T. (eds) Evaluation Models: Viewpoints on Educational and Human Services Evaluation (second edn), Boston, MA: Kluwer Academic Publishers, 69–78.
- Lingard, B. (2011) Policy as numbers: Ac/counting for educational research, *Australian Educational Researcher*, 38 (3), 355–382.
- Lingard, B., Creagh, S. and Vass, G. (2012) Education policy as numbers: Data categories and two Australian cases of misrecognition, *Journal of Education Policy*, 27 (3), 315–333.
- Lingard, B. and Sellar, S. (2013) Catalyst data: Pervasive systemic effects of audit and accountability in Australian schooling, *Journal of Education Policy*, 28 (5), 634–656.
- Love, W.J. (2002) Introduction. In Ricouer, P. (ed) Fallible Man, New York: Fordham University Press.
- Lynch, R.A. (2014) Archive. In Lawlor, L. and Nale, J. (eds) *The Cambridge Foucault Lexicon*, Cambridge: Cambridge University Press, 20–23.
- Machado, R. (1992) Archaeology and epistemology. In Armstrong T.J. (ed) *Michel Foucault: Philosopher*, New York: Harvester Wheatsheaf, 3–19.
- Madaus, G.F. and Kellaghan, T. (2002) Models, metaphors, and definitions in evaluation. In Stufflebeam, D.L., Madaus, G.F. and Kellaghan, T. (eds) Evaluation Models: Viewpoints on Educational and Human Services Evaluation (Vol. 6), Dordrecht: Kluwer Academic Publishers, 19–31.
- Madaus, G.F. and Stufflebeam, D.L. (2002) Program evaluation: A historical overview. In Stufflebeam, D.L., Madaus, G.F., and Kellaghan, T. (eds) Evaluation Models: Viewpoints on Educational and Human Services Evaluation (Vol. 6), Dordrecht: Kluwer Academic Publishers, 3–18.

- Major-Poetzl, P. (1983) Michel Foucault's Archaeology of Western Culture, Brighton: Harvester.
- Marshall, J. (1996) Personal autonomy and liberal education: A Foucauldian critique. In Peters M., Hope W., Marshall J. and Webster S. (eds) *Critical Theory, Post-Structuralism and the Social Context*, Palmerston North: The Dunmore Press, 106–126.
- Massey, D. (2005) For Space, London: Sage.
- McLaughlin, M.W. (1975) *Evaluation and Reform*, Cambridge, MA: Ballinger Publishing. Mertens, D. (1999) Inclusive evaluation: Implications of transformative theory for evaluation,
- American Journal of Evaluation, 20 (1), 1–14.
- Meyer, H. and Benavot, A. (eds) (2013) PISA, Power, and Policy: The Emergence of Global Educational Governance, Oxford: Symposium Books.
- Miller, P. and Rose, N. (1990) Governing economic life, Economy and Society, 19 (1), 1–31.
- Miller, P. and Rose, N. (2008) Governing the Present: Administering Economic, Social and Personal Life, Cambridge: Polity Press.
- Mills, S. (1997) Discourse, London & New York: Routledge.
- Nealon, J.T. (2014) Historical a priori. In Lawlor, L. and Nale, J. (eds) *The Cambridge Foucault Lexicon*, Cambridge: Cambridge University Press, 200–206.
- Nicoli, M. (2015) Un uomo che valuta, Im@go. A Journal of the Social Imaginary, 4, 92–109.
- Normand, R. (2016) The Changing Epistemic Governance of European Education: The Fabrication of the Homo Academicus Europeanus? Switzerland: Springer Academic Publishing.
- Novoa, A. and Yariv-Mashal, T. (2003) Comparative research in education: A mode of gov-
- ernance or a historical journey?, *Comparative Education*, 39 (4), 423–438. O'Malley, P. (1996) Risk and responsibility. In Barry, A., Osborne, T. and Rose, N. (eds)
- Foucault and Political Reason: Liberalism, Neo-Liberalism, and Rationalities of Government, London: UCL Press, 189–207.
- Ocean, J. and Skourdoumbis, A. (2016) Who's counting? Legitimating measurement in the audit culture, *Discourse: Studies in the Cultural Politics of Education*, 37 (3), 442–456.
- OECD (2002) Glossary of Key Terms in Evaluation and Results Based Management, Paris: OECD Publishing.
- OECD (2007) Human Capital: How What You Know Shapes Your Life, Paris: OECD Publishing.
- OECD (2011) Evaluation and Assessment Frameworks for Improving School Outcomes. Common Policy Challenges, Paris: OECD Publishing.
- OECD (2013) Synergies for Better Learning: An International Perspective on Evaluation and Assessment, Paris: OECD Publishing.
- Oksala, J. (2012) Foucault, Politics, and Violence, Evanston, IL: Northwestern University Press.
- Olssen, M. (1999) Michel Foucault: Materialism and Education, Westport: Bergin and Garvey.

O'leary, T. (2006) Foucault and the Art of Ethics, London/New York: Continuum.

- Olssen, M. (2014) Framing and analysing educational research: A recent history of transactions from a foucauldian perspective. In Reid, A.D., Hart E.P. and Peters M.A. (eds) *A Companion to Research in Education*, Dordrecht: Springer, 215–228.
- Olssen, M., Codd, J.A. and O'Neill, A.M. (2004) Education Policy: Globalization, Citizenship and Democracy, London: Sage.
- Osberg, D. (2010) Editorial. Knowledge is not made for understanding; it is made for cutting, Complicity: An International Journal of Complexity and Education, 7 (2), iii–viii.
- Ozga, J. (2009) Governing education through data in England: From regulation to self-evaluation, *Journal of Education Policy*, 24 (2), 149–162.
- Ozga, J. (2016) Trust in numbers? Digital education governance and the inspection process, European Educational Research Journal, 15 (1), 69–81.

- Ozga J., Dahler-Larsen, P., Segerholm, C. and Simola, H. (eds) (2011) Fabricating Quality in Education: Data and Governance in Europe, London: Routledge.
- Ozga, J. and Jones, R. (2006) Travelling and embedded policy: The case of knowledge transfer, *Journal of Education Policy*, 21 (1), 1–17.
- Patton, M.Q. (1997) *Utilization-focused Evaluation: The New Century Text* (third edn), Thousand Oaks, CA: Sage.
- Patton, M.Q. (2011) Developmental Evaluation: Applying Complexity Concepts to Enhance Innovation and Use, New York: Guildford.
- Patton, P. (2014) Difference. In Lawlor, L. and Nale, J. (eds) The Cambridge Foucault Lexicon, Cambridge: Cambridge University Press, 102–109.
- Peck, J. and Theodore, N. (2012) Follow the policy: A distended case approach, *Environment and Planning A*, 44 (1), 21–30.
- Peters, M.A. (2001) Education, enterprise culture and the entrepreneurial self: A Foucauldian perspective, *Journal of Educational Enquiry*, 2 (2), 58–71.
- Peters, M.A., Besley, A.C., Olssen, M., Maurer, S. and Weber, S. (eds) (2009) Governmentality Studies in Education, Dordrecht: Springer.
- Pettersson, D., Popkewitz, T.S. and Lindblad, S. (2016) On the use of educational numbers: Comparative constructions of hierarchies by means of large-scale assessments, *Espacio, Tiempo y Educación*, 3 (1), 177–202.
- Piattoeva N. (2015) Elastic numbers: National examinations data as a technology of government, *Journal of Education Policy*, 30 (3), 316–334.
- Pinto, V. (2012) Valutare e Punire, Napoli: Cronopio.
- Popkewitz T.S. (1997) A changing terrain of knowledge and power: A social epistemology of educational research, *Educational Researcher*, 26 (9), 18–29.
- Popkewitz, T.S. (2000) The denial of change in educational change: Systems of ideas in the construction of national policy and evaluation, *Educational Researcher*, 29 (1), 17–29.
- Popkewitz, T.S. and Brennan, M. (1997) Restructuring of social and political theory in education: Foucault and a social epistemology of school practices, *Educational Theory*, 47 (3), 287–313.
- Popkewitz, T.S. and Pitman, A. (1986) The idea and ideology of progress in social and educational thought, *Curriculum and Teaching*, 1 (1/2), 11–24.
- Porter, T.M. (1995) Trust in Numbers. The Pursuit of Objectivity in Science and Public Life, Princeton, NJ: Princeton University Press.
- Porter, T.M. (1996) Making things quantitative. In Power, M. (ed) Accounting and Science: Natural Inquiry and Commercial Reason, New York: Cambridge University Press.
- Power, M. (1994) The Audit Explosion, No. 7, London: Demos.
- Power, M. (1997) The Audit Society. Rituals of Verification, Oxford: Oxford University Press.
- Power, M. (2004) Counting, control and calculation: Reflection on measuring and management, *Human Relations*, 57 (6), 765–783.
- Power, M. (2011) Foucault and sociology, Annual Review of Sociology, 37 (1), 35–56.
- Rabinow, P. (1997) Introduction: The history of systems of thought. In Rabinow P. (ed) *Ethics: Subjectivity and Truth. The Essential Works of Michel Foucault 1954–1984, Vol. 1*, New York: New Press, xi–xlii.
- Reckwitz, A. (2002) Toward a theory of social practices: A development in culturalist theorizing, *European Journal of Social Theory*, 5 (2), 243–263.
- Revel, J. (2014) History. In Lawlor, L. and Nale, J. (eds) The Cambridge Foucault Lexicon, Cambridge: Cambridge University Press, 187–199.

- Rivlin, A.M. (1971) Systematic Thinking for Social Action, Washington, DC: The Brookings Institution.
- Rizvi, F. and Lingard, B. (2010) Globalizing Education Policy, London and New York: Routledge.
- Rogers, P.J. (2002) Program theory: Not whether programs work but how they work. In Stufflebeam, D.L., Madaus, G.F. and Kellaghan, T. (eds) Evaluation Models: Viewpoints on Educational and Human Services Evaluation (second edn), Boston: Kluwer Academic Publishers, 209–232.
- Rose, N. (1989) Governing the Soul: The Shaping of the Private Self, London: Routledge.
- Rose, N. (1996) Governing advanced liberal democracies. In Barry, A., Osborne, T. and Rose, N. (eds) Foucault and Political Reason: Liberalism, Neo-Liberalism, and Rationalities of Government, Chicago, IL: University of Chicago Press, 37–64.
- Rose, N. (1998) *Inventing Our Selves. Psychology, Power, and Personhood*, Cambridge: Cambridge University Press.
- Rose, N. (1999) Powers of Freedom. Reframing Political Thought, Cambridge: Cambridge University Press.
- Rossi, P.H., Lipsey, M.W. and Freeman, H.E. (1999) Evaluation: A Systematic Approach, Thousand Oaks, CA: Sage.
- Roth, M.S. (1981) Foucault's history of the present, History and Theory, 20 (1), 32-46.
- Russell, N. and Willinsky, J. (1997) Fourth generation educational evaluation: The impact of a post-modern paradigm on school based evaluation, *Studies in Educational Evaluation*, 23 (3), 187–199.
- Ryan, K.E. and Cousins, J.B. (eds) (2009) The SAGE International Handbook of Educational Evaluation, Thousand Oaks, CA: Sage.
- Ryan, K.E., Chandler, M. and Samuels, M. (2007) What should school-based evaluation look like?, *Studies in Educational Evaluation*, 33 (3–4), 197–212.
- Sahlberg, P. (2014) Finnish Lessons 2.0: What Can the World Learn from Educational Change in Finland? New York: Teachers College Press.
- Saltman, K. (2010) The Gift of Education: Public Education and Venture Philanthrophy, New York: Palgrave Macmillan.
- Sanders, J. (1999) The development of standards for evaluations of students. Paper presented at the Annual Meeting of the National Council on Measurement in Education, Montreal, Canada (retrieved <a href="http://www.jcsee.org/wp-content/uploads/2009/09/JCGeneralBackground.pdf">http://www.jcsee.org/wp-content/uploads/2009/09/JCGeneralBackground.pdf</a>).
- Sanderson, I. (2002) Evaluation, policy learning and evidence-based policy making, *Public Administration*, 80 (1), 1–22.
- Sauder, M. and Espeland, W.N. (2009) The discipline of rankings: Tight coupling and organizational change, *American Sociological Review*, 74 (1), 63–82.
- Scheerens, J. and Creemers, B.P.M. (1989) Conceptualizing school effectiveness, *International Journal of Educational Research*, 13 (7), 691–706.
- Scheerens, J. and Demeuse, M. (2005) The theoretical basis of the effective school improvement model (ESI), *School Effectiveness and School Improvement*, 16 (4), 373–385.
- Scheerens, J., Glas, C.A. and Thomas, S.M. (2003) Educational Evaluation, Assessment, and Monitoring. A Systemic Approach, Lisse, The Netherlands: Swets & Zeitlinger.
- Scheurich, J.J. and Bell McKenzie, K. (2005) Foucault's methodologies. Archaeology and genealogy. In Denzin, N.K. and Lincoln, Y.S., (eds) *The Sage Handbook of Qualitative Research* (third edn), Thousand Oaks, CA: Sage, 841–868.
- Schwandt, T.A. (2002) Evaluation Practice Reconsidered, New York: Peter Lang.

- Scriven, M. (1980) Evaluation Thesaurus (first edn), Port Reyes, CA: Edgepress.
- Scriven, M. (1991) Evaluation Thesaurus (fourth edn), Newbury Park, CA: Sage.
- Scriven, M. (2002) Evaluation ideologies. In Stufflebeam, D.L., Madaus, G.F. and Kellaghan, T. (eds) Evaluation Models: Viewpoints on Educational and Human Services Evaluation (Vol. 6), Dordrecht: Kluwer Academic Publishers, 249–278.
- Sellar, S., Thompson, G. and Rutkowski, D. (2017) *The Global Education Race: Taking the Measure of PISA and International Testing*, Edmonton, Alberta, Canada: Brush Education.
- Selwyn, N. (2015) Data entry: Towards the critical study of digital data and education, *Learning, Media and Technology*, 40 (1), 64–82.
- Shiner, L. (1982) Reading Foucault: Anti-method and the genealogy of power-knowledge, *History and Theory*, 21 (3), 382–98.
- Shore, C. and Wright, S. (2015a) Governing by numbers: Audit culture, rankings and the new world order, *Social Anthropology*, 23 (1), 22–28.
- Shore, C. and Wright, S. (2015b) Audit culture revisited: Rankings, ratings, and the reassembling of society, *Current Anthropology: A World Journal of the Sciences of Man*, 3, 421–444.
- Simola H., Ozga, J., Segerholm, C., Varjo, J. and Normann Andersen, V. (2011) Governing by numbers. In Ozga, J., Dahler-Larsen, P., Segerholm, C. and Simola, H. (eds) *Fabricating*
- Quality in Education: Data and Governance in Europe, London: Routledge: 96–106. Simons, M. (2002) Governmentality, education and quality management, Zeitschrift für Erziehungswissenschaft, 5 (4), 617–633.
- Simons, M. and Masschelein, J. (2006) The learning society and governmentality: An introduction, *Educational Philosophy and Theory*, 38 (4), 417–430.
- Stake, R.E. (1983) Program evaluation, particularly responsive evaluation. In Madaus, G.F., Scriven, M. and Stufflebeam, D.L. (eds) Evaluation Models: Viewpoints on Educational and Social Services Evaluation, Norwell, MA: Kluwer, 287–310.
- Stake, R.E. (2003) Responsive evaluation. In Kellaghan, T., Stufflebeam, D.L. and Wingate, L. (eds) *International Handbook of Educational Evaluation*, Dordrecht: Kluwer Academic Publishers: 63–68.
- Stake, R.E. (2004) Stake and responsive evaluation. In Alkin, M. (ed) *Evaluation Roots: Tracing Theorists' Views and Influences*, Thousand Oaks, CA: Sage, 203–217.
- Stufflebeam, D.L. (1972) The relevance of the CIPP evaluation model for educational accountability, SRIS Quarterly, 5 (1), 1–30.
- Stufflebeam, D.L. (1983) The CIPP model for program evaluation. In Madaus, G.F., Scriven, M. and Stufflebeam, D.L. (eds), *Evaluation Models: Viewpoints on Educational and Social Services Evaluation*, Norwell, MA: Kluwer, 117–141.
- Stufflebeam, D.L. (2001) Evaluation models, New Directions for Evaluation, 89, 7–98.
- Stufflebeam, D.L. (2003) The CIPP model for evaluation. In Kellaghan T. and Stufflebeam D.L. (eds) *International Handbook of Educational Evaluation*, Dordrecht: Springer, 31–62.
- Stufflebeam, D.L. and Coryn, C.L.S. (2014) *Evaluation Theory, Models, and Applications* (second edn), San Francisco, CA: Jossey-Bass.
- Stufflebeam, D.L., Madaus, G.F. and Kellaghan, T. (eds) (2002) Evaluation Models: Viewpoints on Educational and Social Services Evaluation (second edn), Boston: Kluwer Academic Publishers.
- Tamboukou, M. (1999) Writing genealogies: An exploration of Foucault's strategies for doing research, *Discourse: Studies in the Cultural Politics of Education*, 20 (2), 201–217.
- Tanke, J.J. (2009) Foucault's Philosophy of Art: A Genealogy of Modernity, London and New York: Continuum Publishing.
- Thévenot, L. (2009) Postscript to the special issue. Governing life by standards: A view from engagements, *Social Studies of Science*, 39 (5), 793–813.

- UNESCO (2016) Designing Effective Monitoring and Evaluation of Education Systems for 2030:A Global Synthesis of Policies and Practices (retrieved http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/ED/pdf/me-report.pdf).
- UNICEF (2010) Bridging the Gap 'The Role of Monitoring and Evaluation in Evidence-based Policy Making', New York: UNICEF Evaluation Office.
- Van Dijck, J., Poell, T. and De Waal, M. (2018) The Platform Society: Public Values in a Connective World, Oxford: Oxford University Press.
- Vedung, E. (1997) *Public Policy and Program Evaluation*, New Brunswick, NJ, and London: Transaction.
- Vedung, E. (2010) Four waves of evaluation diffusion, Evaluation, 16 (3), 263-277.
- Veyne, P. (1997) Foucault revolutionizes history. In Davidson, A. (ed) Foucault and His Interlocutors, Chicago and London: University of Chicago Press, 146–182.
- Webb, D. (2003) Foucault's Archaeology. Science and Transformation, Edinburgh: Edinburgh University Press.
- Weiss, C.H. (1977) Research for policy's sake: The enlightenment function of social research, *Policy Analysis*, 3 (4), 531–545.
- Wickham, G. and Kendall, G. (1999) Using Foucault's Methods, London: Sage.
- Williamson, B. (2016) Digital education governance: Data visualization, predictive analytics, and 'real-time' policy instruments, *Journal of Education Policy*, 31 (2), 123–141.
- Williams, B. and Imam, I. (eds) (2007) Systems Concepts in Evaluation: An Expert Anthology, Point Reyes, CA: EdgePress.
- World Bank (2011a) The Changing Wealth of Nations: Measuring Sustainable Development in the New Millennium. Environment and Development, World Bank (retrieved https://openknowledge.worldbank.org/handle/10986/2252).
- World Bank (2011b) Learning for All. Investing in People's Knowledge and Skills to Promote Development, World Bank. (retrieved http://documents.worldbank.org/curated/en/685531468337836407/pdf/644870WP0Learn00Box0361538B0PUBLIC0.pdf).
- Youdell, D. and Armstrong, F. (2011) A politics beyond subjects: The affective choreographies and smooth spaces of schooling, Emotion, Space and Society, 4 (3), 144–150.

#### Notes

- 1. Dean (2010: 268) defines regimes of practices as the 'relatively organized and systematized ways of doing things such as curing, caring, punishing, assisting, educating' and regimes of government as 'the subset of regimes of practices concerned with ways of directing the conduct of the self and others'. The latter constitute the object of an analytics of government.
- 2. In the essay On the Genealogy of Ethics: An Overview of Work in Progress published in the Foucault Reader edited by P. Rabinow (Foucault 1984: 352), Foucault defines these enquiries as three possible domains of genealogy, which were all 'present, albeit in a somewhat confused fashion, in Madness and Civilization', whereas he clarifies that 'the truth axis was studied in The Birth of the Clinic and The Order of Things, the power axis was studied in Discipline and Punish, and the ethical axis in The History of Sexuality'.
- 3. In *The Subject and Power* Foucault describes the general theme of his research as the ways in which 'human beings are constituted as subjects' (1982: 208–9). In relation to the discontinuities and disjunctions in Foucault's definition of the general themes of his research, Dean argues that 'there is more continuity in his reworking of historical approach than in his formulation of his general themes and objects' and that 'one can discern varying degrees of concern for and balances between issues of power and government, truth and rationality, and subjectivity and ethical practice' (Dean 1994: 35).
- 4. The word analytics is intentionally employed here to highlight that archaeology is 'a method of decomposition into context-dependent categories of statements and their context-dependent transformations rather than atomic elements and abstractable rules of formation' (Dreyfus and Rabinow 1982: 56). On the basis of these considerations, Dreyfus and Rabinow conclude that archaeology 'could better, following Kant, be called an analytic, since it seeks to discover the a priori conditions that make possible' any historically and socially situated analysis.
- 5. Most of the key terms and concepts of the archaeological method (e.g. discontinuity, threshold, limit, series or transformation) are derived from mathematics and make evident the strong relation existing between Foucault's archaeology and the works of Bachelard, Cavaillès and Serres (Webb 2003: 54; Major-Poetzl 1983). Archaeology, in this respect, stands as an attempt to 'draw on resources from science and mathematics to undo habits of thought entrenched in philosophy, and above all in forms of thought allied to the human sciences through their shared commitment to the idea of the human' (Webb 2003: 48). However, if located in Foucault's entire intellectual trajectory, it is clear how such an undoing is not devoted to a radical decentering of the human subject, neither to a radical critique to human sciences and the idea of the human. On the contrary, Foucault's analyses have the ambition to account for the constitution of the subject within a historical framework (Foucault 1980: 117), not rejecting 'all humanism' but resituating 'humanism by historicizing the conceptions of actors and reason through which practice and purpose are constructed' (Popkewitz and Brennan 1997: 297-98). As Webb has argued (2003: 54), Foucault's ambition, after all, is to open up the 'synthesis of experience to reveal its operation as a historical process'.
- 6. In order to fully understand what is the domain of analysis of the archaeology and eschew from some confusions and reductionisms that it is possible to recognize in some attempt to employ Foucauldian archaeology, it seems useful to bear in mind how, through this definition, Foucault distinguishes the statement from linguistic performance, that is any group of signs produced on the basis of a natural (or artificial) language (langue), formulation, that is the individual or collective act (an event) that reveals, on any material and according to a particular form, that

group of signs, *sentence or proposition*, that are the units that grammar or logic may recognize in a group of signs. The statement is the modality of existence proper to that groups of signs.

7. Interestingly enough for a sociologist, in the Archaeology of Knowledge (2002b),

Foucault demonstrates a clear sense of the kind of bracketing that an archaeological gaze operates in choosing the enunciative field and function as objects of the analysis and how this de-emphasize the role that humans have in making their history (Gutting 2014: 16). In his discussion of the repeatable materiality of the enunciative function, Foucault (2002b: 118) defines the statements as paradoxical 'objects that men produce, manipulate, use, transform, exchange, combine, decompose and recompose, and possibly destroy. Instead of being something said once and for all [...] the statement, as it emerges in its materiality, appears with a status, enters various networks and various fields of use, is subjected to transferences or modifications, is integrated into operations and strategies in which its identity is maintained or effaced. Thus the statement circulates, is used, disappears, allows or prevents the realization of a desire, serves or resists various interests, participates in challenge

8. This is a controversial point and it is possible to criticize the kind of conceptual

equivalence that I am suggesting here. As Lynch (2014: 20) observes, Foucault uses the term 'archive' most commonly in the years 1967–1969, offering several variations on the notion given in *The Archaeology of Knowledge*. After 1969, however, the notion of the archive virtually disappeared from Foucault's vocabulary, when genealogy emerges as the principal framing lens of his work. A similar argument could be made for the terms 'episteme' (which was central in *The Order of Things*) and 'historical a priori' (see Nealon 2014). The relationship between the terms archive, episteme and historical a priori is discussed in Roth 1981.

and struggle, and becomes a theme of appropriation or rivalry'.

9. Gutting (1989: 236) discusses how Foucault employs this distinction in his archaeological analysis and provides an interesting example for the scope of this book. Looking at *The Order of Things* he highlights how that book showed in what ways the field of presence of the modern sciences of man 'corresponds to the distinctive set of statements about man that are accorded serious disciplinary consideration by psychology, sociology and literary analysis', where the field of concomitance includes the empirical sciences as biology, economics and philology that provide their models and, finally, their field of memory includes the disciplines of the Classical age that they have substituted.

10. It is worth to note here that, if Foucault clearly states in The Archaeology of Knowledge

- that he has not devoted a work to the specific task of a system of formation of strategies and its implicit rules (2002b: 72), as Dreyfus and Rabinow suggest (1982: 72), his systematisation of the analytic of finitude in *The Order of Things* (2002a) 'can, however, serve as an example of what such an approach can accomplish', when Foucault shows how, across two centuries, three strategies were explored and exhausted in the attempt to find out how to identify and overcome man's essential limitations. It is thus the analytic of finitude that 'sets up a space in which strategies can arise, embroil whole areas of research, and then be replaced by others' (Dreyfus and Rabinow 1982: 73), where the elements go through a certain number of intrinsic transformations but the general form of discursive practice is not altered in its
  - regularity.

    11. In *The Archaeology of Knowledge* (2002b: 177–79), Foucault powerfully uses his analyses in *The Order of Things* as example to clarify what does it mean to uncover the play of analogies and differences between discursive formations. To provide an example of *archaeological isomorphism*, he recalls how the concepts of General Grammar, like those of verb, subject, complement and root, were formed on the basis

of the same arrangements of the enunciative field – theories of attribution, articulation, designation and derivation – as the very different, radically heterogeneous concepts of Natural History and Economy. Within the same space, however, they had different *archaeological models*, in so far as General Grammar followed the order 'theories of attribution, articulation, designation, and derivation theory of derivation', whereas Natural History and the Analysis of Wealth regrouped the first two and the last two, but linking them in the reverse order. Coming to *archaeological isotopia*, Foucault recalls how the concepts of value and specific character, or price and generic character occupied similar positions in the ramifications of their respective discursive formations (the Analysis of Wealth and Natural History). As examples of

an archaeological shift Foucault recalls, instead, the notions of origin and evolution, emphasizing how they had not the same role, place and formation in the discursive

12. As Foucault recognizes (1997a: 316), 'it is true that we have to give up hope of ever acceding to a point of view that could give us access to any complete and definitive knowledge [connaissance] of what may constitute our historical limits. And, from this point of view, the theoretical and practical experience we have of our limits, and of the possibility of moving beyond them, is always limited and determined; thus, we are always in the position of beginning again'.

formations of the General Grammar and Natural History.

13. I want to clarify that there is not determinism here. Discursive practices culturally shape the fields within which actors enact their strategic conduct, contributing to the definition of both the possibilities of thought and the rules of the game. Moreover, they play a crucial role in the construction of the acting subjects themselves, shaping positional identities and power relations among the actors as well as the possible courses of action. In emphasizing this point, Ball (2006: 49) states that 'there are real struggles over the interpretation and enactment' of discursive possibilities, but 'these are typically set within a moving discursive frame

which articulates and constraints the possibilities and probabilities of interpretation and enactment'. In these terms the effect of the discursive is to enable, limit and change the possibilities we have for thinking 'otherwise' and responding to change. The perspective proposed in this book acknowledges how enactments take place into social environments where alternative discursive formations 'clash and grate against one another' (ibid; Tamboukou 1999). The fields of validity, normativity and actuality are not univocally defined by any single discursive formation. Rather, Foucault's emphasis on discontinuity and on the processes of exclusion, co-option, subjugation and marginalisation offers an image of the discursive as a field of struggle where diverging discursive formations confront each other, where 'dominant discourses pre-suppose their opposite' and 'the existence of [...] 'outlaw' discourses, always presents the possibility of some kind of 'disidentification' (Ball 2006: 49).