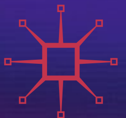
The Quantified School

Pedagogy, Subjectivity, and Metrics

Diego Santori



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The data have landed

First they said they needed data
about the children
to find out what they're learning.
Then they said they needed data
about the children
to make sure they are learning.
Then the children only learnt
what could be turned into data.
Then the children became data.

—Michael Rosen

For Ceci

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List of Abbreviations

ACARA	Australian Curriculum, Assessment and Reporting Authority
ACER	Australian Council for Educational Research
BIA	Bridge International Academies
CDOs	Collateralized Debt Obligations
CHFS	China Household Finance Survey
CVA	Contextual value-added
DIBs	Development Impact Bonds
EAA	Educational Assessment Australia
ELG	Early Learning Goal
EMS	Educational Measurement Solutions
EYFS	Early Years Foundation Stage
GCSE	General Certificate of Secondary Education
GEMS	Education Global Education Management Systems
GERM	Global Education Reform Movement
IME	Intensified Market Environment
LGE	General Education Act
NAP	National Assessment Program
NAPLAN	the National Assessment Program—Literacy and Numeracy
OECD	Organisation for Economic Co-operation and Development
PAES	Spanish acronym for University Entry Examination
PEAS	Promoting Equality in African Schools
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
QS	Quantified Self
RBA	Reception Baseline Assessment
SATs	Standard Assessment Tests
SDPD	Professional Development Framework

SEP	Preferential School Voucher
SIB	Social Impact Bonds
SIMCE	Spanish acronym for Chilean National Assessment
SNED	Spanish acronym for whole-school reward scheme
SRGs	Standards, Rules, or Goals
SROI	Social Return on Investment
TIMSS	Trends in International Mathematics and Science Study
VA	value-added

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CHAPTER 1

Introduction: A Quantified Soul?

I began writing this book by trying to consider whether intense exposure to quantified forms of meaning and sense-making could result in dispositions and even attachments to metrics-based forms of signification. The school, as the most extensive compulsory phase of socialisation, seemed the obvious site for such investigation since formal education represents perhaps the widest network for the reproduction and appropriation of shared practices in a given culture. The contemporary use of market mechanisms to regulate pedagogic processes places the school under multiple demands for calculation, prediction, and comparison by the use of accountability tools like high-stakes testing, league tables, consequential inspection ratings, and 'progress' measures, among others. These modes of test-based accountability produce systems whereby the 'quality' of the school is narrowly defined by numbers, and 'improvement' is defined as increasing these numbers, rather than improving practice and fostering holistic learning environments (Campos-Martínez et al., 2022). This, in turn, translates into a series of top-down demands for teachers and students to produce and consume metrics, shaping 'the school day, the curriculum, the teacher's responsibilities, the pupil's worth, the ideal parent and what counts as ability' (Hall et al., 2004, p. 801). If following Elcheroth et al. (2011, p. 741) our understanding of reality is derived from the accumulation of concrete experiences that fill an ordinary life. In this light, then, can we think of the school as a quantified space for identity formation?

To study the impact that relentless demands for quantification have on the self requires more than just the presence of a few isolated market

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mechanisms, but a comprehensive and cohesive system of performance measurement, evaluation, incentives, and sanctions—what Barker (2010) calls 'hyper-accountability' or Högberg and Lindgren (2021) call 'thick accountability'. This book focuses on Chile as a case in point of market intensification, with a long history of market-driven education policy (Bellei & Munoz, 2023; Falabella, 2021) and key accountability tools like a national assessment (SIMCE) that measures and compares school performance, a whole-school reward scheme (SNED) that provides economic incentives for high-performing schools, a school voucher scheme with a competing funding formula per student, and school choice with a centralised online school admission system based on family preference and random allocation of school places for over-subscribed schools. Together, this assemblage of school performance metrics, rewards, and punishments results in an Intensified Market Environment (IME) (Santori, 2018), characterised by a dense articulation of centrally prescribed performance standards, rigid rating systems, and symbolic and material consequences associated to underperformance. On a dynamic level, a central feature of IMEs is the artificially induced perception of risk through the accelerated flow of performance-based signifiers. To offer a nuanced interpretation of the reach and interpellative power of market and accountability technologies I use critical bifocality (Weis & Fine, 2012, p. 196), deliberately placing ethnographic and narrative material into a contextual and historic understanding of economic and social formations (186). By nesting lives within structures and histories, I document the experiences by which teachers and pupils, across neighbourhoods, navigate accountability and data-demands from their schools.

The Contact Point

It could be argued that we do not need another account of the perverse effects of market-oriented policies in education, since scholars around the world have repeatedly denounced how this works to reinforce existing structural inequalities (Apple, 2006; Bowles & Gintis, 1976; Lissovoy & McLaren, 2003). Furthermore, there are plenty of poststructural studies that have argued that the marketisation of policy discourse has also shaped our subjectivity through the use of choice and freedom as the essential tools for government (Dean, 1996; Larner, 2012; O'Malley, 1996; Rose, 1996, 1999a, 1999b; Sennett, 1998). Within the field of education, these effects of subjectification have been discussed in relation to teachers (Ball,

2003; Whitty, 1997), students (Kenway & Bullen, 2001), school leadership (Grace, 1997), and organisational practices (Ball et al., 2012; Hunter, 1996). These studies examine how the signifying practices of the school act *on* the subject, but there are virtually no accounts of the processes through which they *activate* or *form* the subject (Butler, 1997, p. 84). This book, then, aims to bridge that gap by exploring how the 'process of subjectification' (Davies, 2006) actually happens within the school; how these optimising practices that emerge in response to the demands from market structures and performance management systems dis-articulate and re-articulate the subject in specific ways.

To access the *contact point* between policy structures and the self demands a 'process-based analysis of neoliberaliazation' (Peck & Tickell, 2002, p. 380) and Chile, as the first neoliberal laboratory, constitutes a critical case to study whether the 'institutionalised patterns of cultural value' (Fraser, 2003, p. 29) produce particular forms of 'symbolic dependence' (Bourdieu, 2000, p. 167). Peck understands the process of neoliberalisation as the result of two complementary moments. The *roll-back* is a destructive and deregulatory moment, which is based on the erosion and dismantling of 'Keynesian-welfarist structures coupled with primitive deregulation of markets' (2010, p. 26); *roll-out* is a creative moment, in which the state is remade so as to support and promote the functioning of the market. As claimed by Klein in her compelling account of disaster capitalism (2008), this destruction and creation is what literally happened in Chile during the civic-military dictatorship, led by Augusto Pinochet between 1973 and 1990. Perhaps this destruction did not only reset the organising principles at the institutional level, as epitomised by the Brick[1] as the founding text of a new order, but most importantly was intended to re-create the very grammar of the self.

Peck's metaphor reflects these developments within the education system as evidenced by the deregulation of education provision, the decentralisation of state education, its destruction (first via funding cuts and subsequently by the diffusion of composed metrics to cement the notion of failure amongst the emerging generation of school choosers), and its reconstruction (by way of performance management systems designed to artificially pump up competition at the local, regional, and national levels

[1] The Brick was a confidential economic plan designed by the 'Chicago Boys'—a group of economists most of whom trained at the University of Chicago under Milton Friedman and Arnold Harberger—before the civic-military coup of 1973.

by the introduction of risk as the driving engine for efficiency and a growth-first model as the recipe to secure subsistence). However useful this insight might be in order to capture 'neoliberalism in action' (Lazzarato, 2009), this framework remains too simplistic as an account of the complexities within the process of neoliberalisation of the self. Destruction and creation seem to suggest a radical substitution, in which the remnants of a former articulation can no longer be used or activated. On the contrary, I wish to argue that while sometimes destructive, this process of neoliberalisation is deeply dependent on those *surviving traces* from previous structures. In order to become meaningful and invested with desire, the process of neoliberalisation demands 'continued mongrelisation' (Peck, 2010, p. 24) with existing rituals, practices, and emotional attachments. But how does this mongrelisation affect and reconfigure the psychic economy of the subject?

Drawing on Foucault's suggestion that we need to attend to a 'history of bodies', this requires interrogating how, as a result of the signifying practices of the school, the subject 'becomes the principle of his own subjection' (Foucault, 1991, p. 203). Or perhaps in a Lacanian vein, how do the available schemes of cultural intelligibility delimit the 'position' of the subject within the symbolic (Butler, 1997, p. 86)? In doing this, I wish to depart from the 'still all-too-common discussions of the "neoliberal project" in which hegemonic, monolithic, agent-less institutions unilaterally impose market solutions on unwilling and unwitting victims' (Larner, 2012, p. 277). Instead, this book explores how schools 'set the stage for the subject's self-crafting' (Butler, 2005, p. 18). This is why, borrowing Winnicott's insights on child development (1986), I approach the school as a *holding environment* that surrounds teachers, students, and parents with a whole set of symbolic, affective, and material flows that nonetheless produces stable (but not fixed) patterns of cultural value. The holding environment of the school 'offers a framework for the scene of recognition, delineating who will qualify as a subject of recognition and offering available norms for the act of recognition' (Butler, 2005, p. 22). In order to understand the workings of neoliberalism 'as a series of particular, context-specific, and contradiction-laden enactments' (Peck, 2012, p. 279), this book explores how the answer to the question 'who can I be, given the regime of truth that determines ontology for me?' (Butler, 2005, p. 25) is shaped by collective patterns of identity negotiation, with particular attention to quantification as a dominant form of sense-making. If the *holding environment* of the school 'provides the conditions for a sustaining

address' (p. 59), to what extent does the 'structure of address' (p. 53) of the school condition the arrangement of the organising principles of the self? In what ways does the incorporation of quantified indicators and competition-based forms of accountability as tools to regulate teaching and learning processes also shape the psychic topography of the subject? This suggests exploring the extent to which the introduction of material and symbolic dispositions towards the optimisation of outcome at the school level re-articulates systems of value, practices, and dispositions, and perhaps more broadly leaves an imprint on the psychic configuration of the subject. And more importantly, to what extent does this intense exposure to quantified forms of signification result in dispositions and attachments towards quantified forms of sense-making?

In analysing the process of neoliberalisation within the school, I wish to explore the 'technocratic embedding of routines of neoliberal governance' inside the school, as a path towards the 'experience of normalised neoliberalism' (Peck & Tickell, 2002, p. 384). Following Clarke's suggestion of neoliberalism as a dis-articulation and re-articulation of a pre-existing site, could this re-articulation bring in new 'patterns by which experiential and emotional contexts, feelings, images and memories are organised to form one's self image, one's sense of self and others, and our possibilities of existence' (De Lauretis, 1986, p. 5)? Again, Peck provides us with another binary to think about the dynamics of neoliberalism. In tracing the origins and geographical developments of neoliberalism, he claims that while neoliberalism was thought to be 'out there' as 'a byword for a distinctly American form of deregulated capitalism', it is 'disconcertingly "in here" as well; it has entered the European bloodstream' (2010, p. 2). I wish to use Peck's distinction in a slightly different way to suggest that, for an account of the processes of subjectivation, it is crucial to trace the displacement of these structures of optimisation from 'out there' (i.e. in the news, policy practices, institutional systems, transnational corporations, as generally depicted by grand narratives of globalisation and capitalism, but even in more concrete material practices such as league tables and systems of performance management) to 'in here', as the regulatory framework of the self. However, I do not mean to imply that this is a straightforward process of simply transferring a normative ideal from pre-existing social structures to the individual. Quite the contrary, rather than a mechanistic appropriation by the subject, this process is always mediated by material and immaterial structures of signification. In a Althusserian vein, the question remains how does this 'transition between the external materiality of

state apparatuses (institutions, practices, rituals, etc.) and the interiority of ideological subjectivity' (Dolar, 1993, pp. 89–90) take place within the holding environment of the school? Perhaps it is easier to think of this 'transition' that Dolar refers to if we conceive subjectivity not as a separate realm locked up within the limits of the subject but as part of a wider assemblage, as Deleuze and Guattari would have it. Apparently 'whole' entities, Youdell (2011, pp. 14–15) notes, 'might be understood as assemblages of heterogeneous components that cross-cut state, social, representational, discursive, subjective, and affective orders'. From this perspective, to approach subjectivity from the isolated knowledges of compartmentalised disciplines would underestimate its complexity and possibly obliterate its intimate dependence on other orders. Following Deleuze and Guattari (1983, p. 52): '[t]here is no longer a tripartite division between a field of reality (the world), a field of representation (a book), and a field of subjectivity (the author). Rather, an arrangement connects together certain multiplicities caught up in each of these orders'. Yet, what is it that is mobilised in order to bring multiplicities together (or rupture them)?

Drawing on Ahmed's insights on affective economies (2004, p. 44), I wish to suggest that affect constitutes the arrangement that connects together multiplicities apparently confined within separate fields. While seemingly restrained to the interiority of the subject, affect's sphere of influence/action goes well beyond 'the body's organic-psychological constraints' (Clough, 2007, p. 2). Understood as an ability to affect and be affected (Massumi, in Gilles Deleuze & Guattari, [1988] 2004, p. xvii), affect remains essential in order to think the political, the economic, and the cultural. Indeed, as noted by Youdell (2011, pp. 48–49), the translation of affective intensity into a symbolic framework of understanding, interpretation, and regulation takes place through emotions, as the naming of these sensations through discourse. Ahmed argues that affective value accumulates through the movement and circulation of objects. This means that affect and emotions are not 'in' the individual or the social. Rather, it is objects of emotion that become saturated with affect as a result of personal and social struggles. While emotions appear to emerge in response to the qualities of specific objects and signs, it is 'only through an erasure of the history of their production and circulation' (Ahmed, 2004, p. 11) that emotions come across as if intrinsically belonging to these objects or signs. If the form that affect takes depends on the available framework of intelligibility, then it is in the transition from affect to emotion that the 'texture' of the psychic and the social are delineated. Affect

can then be considered as the *connective tissue* between 'semiotic, material, and social flows' (Deleuze & Guattari, 1983, p. 52) as it works across registers (conscious/unconscious), beyond the limits of spatiality (material/immaterial) and temporality (past/present/future), operating simultaneously on real or imaginary sites and inter-subjectively 'hopping' between stories, images, and metaphors.[2]

Yet, what is it that gets fixed through the circulation of affect? Going back to Dolar's point about the *transition* between the materiality of state apparatuses (in this case, together with market structures) and subjectivity, perhaps this segue can be thought of as a 'process of materialization that stabilizes over time to produce the effect of boundary, fixity and surface' (Butler, 1993, p. xviii). The notion of a process suggests that this materialisation does not abruptly take hold but takes place through successive *moments of solidification* in which, while 'affection might be fleeting, it may also leave a residue, a lasting impression that produces particular kinds of bodily capacities' (Watkins, 2010, p. 269). If drawing on Ahmed's model of 'affective economy', we understand the subject as 'simply one nodal point in the economy, rather than its origin and destination' (2004, p. 46), could we suggest that the processes that govern the neoliberal assemblage also shape in some way, the psychic economy of the subject?

Under the notion of 'neoliberal cohabitation', Clarke (2008, p. 139) argues that, as a political-cultural project, neoliberalism 'lives with others in the world' by way of three complementary mechanisms: *displacement*, *subordination*, and *appropriation*. In his view, it is through these mechanisms that principles, polices, practices, and discourses are reorganised into new configurations, assemblages, and constellations. If, following Deleuze and Guattari ([1977] 2004, p. 2) '[t]here is no such thing as either man or nature now, only a process that produces the one with the other and couples the machines together', could we use these mechanisms to think about the neoliberalisation of the self? Or could we suggest that the transition that Dolar makes reference to takes place through the *displacement* of alternative modalities of recognition, the *subordination* of bonding and relational patterns, and the *appropriation* of feelings, emotional attachments, defence mechanisms, images, and memories? If so, how is the school as a neoliberalising space re-articulating pre-existing sites, processes, or practices? What are the technologies within the school

[2] For instance, dreams and art illustrate the ability of affect to cut across these registers and flows.

that facilitate this transition? If any negotiation of subjectivity is constrained by collective patterns of signification, how does the web of relations of the school shape individual possibilities of self-crafting? This book explores how 'this capacity of affect to be retained, to accumulate, to form dispositions and thus shape subjectivities' (Watkins, 2010, p. 269) takes place through the everyday rhythms of the school.

Structure of the Book

Part I situates metrics-driven pedagogy in the broader context of the 'quantitative turn'. Chapter 1 sets the scene for the need to study the relationship between regulatory frameworks and identity formation, with a focus on everyday micro-practices of quantification. In particular, this chapter makes a case to investigate whether intense exposure to quantified forms of meaning and sense-making in school settings could develop into metrics-driven dispositions or attachments. Contemporary demands on schools for calculation, prediction, and comparison by the use of accountability tools like high-stakes testing, league tables, consequential inspection ratings, and 'progress' measures evidence the relentless presence of quantification in teaching and learning. This chapter argues the importance of bridging political, sociological, and anthropological literatures together with affect and subjectivity theories to understand the complex ways in which standardisation, optimisation, automation, and surveillance crystallise into quantification-based forms of intelligibility. Chapter 2 examines the rise of quantification as a dominant form of sense-making. Looking at various manifestations of this phenomenon, the chapter discusses the quantification of the self, with reference to the Quantified Self movement, and the quantification of social practices, with reference to the use of metrics-driven policy instruments like Social Return on Investment (SROI) and Development Impact Bonds (DIBs), before turning to the take up and expansion of data-driven sense-making in education, looking at global developments, national initiatives, and school-level interventions. Chapter 3 provides an account of contemporary manifestations of metrics-driven forms of monitoring and control in education with reference to the continuity and expansion of test-based accountability as a technology of government in three geographically and culturally diverse settings: England, China, and Australia. The policy initiatives under analysis in this chapter are used to explore the adaptability of the free-market project and consider the cumulative effects of a process of multiple

adaptations on the subjects of policy (McGimpsey et al., 2017). Chapter 4 examines the link between economic theory and social policy and situates Chile as a *generative moment* within the history of liberal thought in its role as a laboratory for free market architecture. By looking at the shifting emphases in the use of standardised testing in tandem with key insights from free-market theory, Chapter 5 offers a political inquiry into contemporary mutations in standardised testing as a technology of government (see Ong, 2006, p. 10), with attention to its adaptive (and co-optive) capacities. Drawing on Foucault's (2010) analyses of biopolitics, this chapter argues that standardised testing has served very different purposes over the past four decades of neoliberal experimentation in Chile: (i) as 'spontaneous' social order, (ii) as levelling playfield, (iii) as merit, and (iv) as choice architecture.

Part II presents data from stratified dataset of five case study schools in Santiago in terms of funding type, locale and intake, and school performance, using in-depth semi-structured interviews with parents, teachers, and head teachers and ethnographic contextualisation as primary sources of data. Chapter 6 provides an account of the ways in which high-stakes accountability frameworks produce a specific type of school that is driven by score-seeking practices. I referred to this type of school as the quantified school, characterised by full compliance with the metrics-driven demands from the education system, exceeding the statutory requirements towards output optimisation. This chapter also suggests that the specific type of institution that results from this 'turning around' in response to the 'hailing' of the system is an institution that relies on a set of technologies for the optimal production of metrics-driven forms of signification through the appropriation and exploitation of affect. Chapter 7 aims to take a step further and discuss the extent to which the intense exposure to quantified forms of signification can significantly shape the ways in which we relate to ourselves and others, creating dispositions and attachments towards quantified forms of sense-making. In other words, the chapter aims to address the question of whether we can think of the school as a quantified space for identity formation by examining the tensions and contradictions experienced by teachers and pupils in score-driven schools. A central argument of this book, however, is that demands from vertically integrated systems of accountability do not interpellate all schools in the same way, but that this process is mediated by socioeconomic, cultural, and organisational factors. In order to provide a nuanced account of the impact that quantification-based forms of sense-making