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1. IMAGINING LITERACY

A Sociomaterial Approach

LITERACY AS A KEY ASPECT OF THE MODERN SOCIAL IMAGINARY

This chapter presents a theoretical model for analysing the different ways in which literacy is represented in policy, media discourses and everyday practices. There are many ways in which people have tried to define and explain how literacy functions in individual lives and in society, asserting its usefulness for the state and for other social and economic institutions. Over time and in different contexts, literacy has been imbued with a wide variety of aims: religious, moral, cultural and emancipatory. It has been enlisted to support nation building, wealth creation and universal human rights. As a term, literacy is elastic and slippery and it can be made to carry all kinds of hopes, judgements and expectations. These narratives about literacy are part of what shapes literacy education in different historical eras and places. They circulate in many places – in policy documents, in the news and popular media, but also in everyday social interactions in homes and classrooms. An interesting example of the way public discourses cross over to powerful effect can be found the forward to the 1999 report Improving Literacy and Numeracy: A Fresh Start which set the ground for the Skills for Life policy in England (Moser, 1999). In this forward, Claus Moser quotes from The Reader a novel by Bernhard Schlink (1998) which was widely popularised by United States (US) talk show star, Oprah Winfrey. Moser uses the novel to make the point that "illiteracy is dependence" and to claim that literacy offers liberation and independence (see Johnson & Finlay, 2001). Adult literacy policy and publicity often carries this message which encourages people to imagine themselves as being in a deficit state and in need of help even though they do not necessarily share this vision.

This vision of literacy which Brian Street has called the autonomous view, sees reading and writing as a set of individual cognitive skills, possession of which has universal effects (Street, 1984). In fact, the abilities and opportunities to read and write the printed word are woven into everyday patterns of social practice in locally specific ways. These patterns are diverse, varying with linguistic and cultural contexts, the availability of different materials and technologies for communication, and the use and valuing of other semiotic systems for representing meaning. This makes for a dynamic landscape of practice within which educational policy and practice takes place.

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The narratives we have developed about literacy help to organise and control this diverse and changing landscape. They facilitate interventions into it in the form of educational and social policy reforms. Some of these narratives are so familiar that it is difficult to get beyond them and the contradictions they embody to think in a fresh – perhaps more effective – way about the power of the written word. These narratives about literacy are also tightly integrated with others in adjacent areas of social life, linked for example, with views about citizenship, poverty and culture. This compounds their hold over our imagination and ways of thinking. Charles Taylor (2007) refers to this as the 'social imaginary': an implicit map of social place and relations which forms a horizon we are virtually incapable of thinking beyond. Because of their power to organise thinking it is crucial to examine these narratives – that is, to study the politics of representation. This includes analysis of how these public narratives emerge in different media and social domains (from policy texts to novels); how social actors (whether employers, teachers, media celebrities or parents) mobilise around them; how they are linked with other common cultural narratives and how they themselves contribute to the work of literacy in contemporary societies. Whilst similar processes occur in other areas of social life, in my book (Hamilton, 2012a) I argue that literacy is significantly implicated in our contemporary social imaginary and this is reflected in the stories we currently tell one another about reading and writing. Research itself carries particular visions of what literacy is and so it is important for scholars also to make the theories they use explicit to themselves and others.

Literacy has always been diverse because it is rooted in the cultures and languages that learners and users bring to written communication. These affect the resources, power relations, and identities produced (e.g. Street, 2005). Literacy is by nature multi-lingual and part of processes of social ordering. Sociologist Dorothy Smith (2005) explains literacy's co-ordinating role in what she terms 'the textually-meditated social world' and a number of researchers assert that this role is intensifying in contemporary society (e.g. see Iedema, 2003). Literacy is changing rapidly as linguistic and cultural groups move and intermingle as never before (Blommaert & Rampton, 2012; Kalantzis & Cope, 2012; Pennycook & Otsuji, 2015). Lankshear and Knobel (e.g. 2008) foreground the development of digital forms of communication as a key driver of these changes, which have recast existing forms of written communication and - it can be argued - create new literacies specific to digital environments. There is considerable ambiguity around the term 'digital literacies' (see Gourlay, Hamilton, & Lea, 2014), which are sometimes interpreted to mean general competence with digital devices. However, if we define the term as the ways in which meaning-making resources are used and produced in on-line settings, then the relationship with print literacies becomes clearer and the implications of digital technologies for literacy learning and teaching are key.

Literacy currently has a high profile within national and international policy because of the human resources view of the centrality of skills and training to prosperity which is promoted strongly through the Organisation of Economic Co-operation and Development (OECD). The human resource model of education sees literacy as a commodity to be exchanged within the global market place. It asserts that large sections of the adult population need to be 'upskilled' to cope with the rapidly changing competitive global environment, linking literacy directly with economic development, individual prosperity and vocational achievement in what are claimed to be universal relationships. This 'literacy myth' identified by Harvey Graff more than 30 years ago has, if anything, been re-inscribed more securely into international policy, despite much evidence that it oversimplifies and therefore is unlikely to deliver the outcomes it promises (see Graff, 2010). This human resources view of literacy learning that has dominated recent policy initiatives produces a moral order of literacy which organises our understanding of different sites of learning, the people active within them and the different forms of learning in which they engage. Formal learning is privileged over informal learning, standardised and measurable outcomes are preferred for demonstrating achievement. The 'good' literacy learner is constructed as a responsible citizen contributing to global prosperity. The autonomous approach to literacy is thus alive and well in the context of international policy discourse, where it is conducive to defining measurable skills that can be commodified within social development. I and others have called this a move to 'literacy as numbers' (see Hamilton, Maddox, & Addey, 2015).

HOW LITERACY HAS BEEN THEORISED AND UNDERSTOOD – CONTINUITIES AND CHANGE

The autonomous view of literacy described above has been widely and effectively critiqued over the last 30 years (see Barton, 2007; Collins & Blot, 2003) as creating an oppressive great divide between those who are seen to be literate and those who are not. This view is an ethnocentric one that focuses attention on alphabetic literacies and has been part of western colonial practices.

Scholars and practitioners critical of this dominant approach, have developed alternative analyses of literacy in terms of how it interacts with power relations and developed pedagogies that challenge these relations in order to emancipate rather than domesticate literacy learners (see Freire, 1972; Giroux, 1988; McLaren & Lankshear, 1993). A view of literacy as situated social practice takes up this interest in power relations but puts the opportunity to realise the diverse expressions of literacy at the centre of its emancipatory project, moving beyond the confines of formal education in order to explore these. Scholars working in this tradition view the meanings and values of literacy as contingent and situated, shifting according to context, purpose and social relations (Bartlett, 2008; Barton, Hamilton, & Ivanič, 2000; Brandt, 2005; Gee, 1990; Heath, 1983; Scribner & Cole, 1981; Street & Lefstein, 2007). They have described the vernacular, everyday practices of reading and writing and have generated a large body of ethnographic work, offering rich descriptions of situated literacy practices involving various print, digital and/or otherwise multimodal resources among different groups (e.g. Barton & Hamilton,

2012; González, Moll, & Amanti, 2013; Gregory & Williams, 2000; Pahl & Rowsell, 2006; Street, Pahl, & Rowsell, 2009).

This distinct approach – referred to in this article as 'literacy studies' – has developed alongside sociocultural theories of learning that foreground the social, acknowledging the role of informal learning and the multiple spaces of learning (see Gutierrez, 2008; Lave, 1988; Lave & Wenger, 1991; Scribner & Cole, 1981). There have also been parallel developments in theories of discourse that link language with action and social structure (Fairclough, 2013; Scollon, 2001). Fairclough and other critical discourse analysts assume that discourse plays a key role in social change. Change is 'talked into being' through discourses such as 'illiteracy as deficiency'. These discourses "shape and reshape" social reality (Chouliaraki & Fairclough, 1999, p. 4); they are part of the way people act together (and against one another) in the world in habitual ways (p. 21). Chouliaraki and Fairclough do not argue that all social life is discourse but that discourse is one constitutive element of social practices, along with action and interaction, social relations, persons and the material world (see also Fairclough, 2003, p. 25).

Developments in our understanding of literacy in social life and the worlds of new media have inevitably led to a broader understanding of literacy as part of semiosis, meaning-making and material representative practice. Kress (2009), for example, argues that social semiotic theory is essential for understanding the place of literacy within other meaning-making systems (see also Jewitt & Kress, 2003; Menezes de Souza, 2008). A social semiotic approach to discourse offers a vocabulary for analysing the properties of texts including the visual multi-modal aspects of the digital including number (van Leeuwen, 2008). Like the theory of literacy as social practice, social semiotics puts the concept of situated practice at the centre of the analysis of discourse, and sees the producer of meaning as actively choosing from and assembling semiotic resources of all kinds. Different semiotic resources have different affordances, or potentials for action which are realised differently in different contexts (see also O'Halloran, 2008). Van Leeuwen (2008) is interested in social categories of meaning that may be realised in a variety of ways using linguistic and these other semiotic resources to 'recontextualise' social practices. This enables analysis of the specifics of how language and other meaningmaking resources are chosen and combined and are active within the broad social landscape described above.

New views of literacy as social practice have gained solid ground within academic research and practice communities, and critical literacy approaches have remained strong in international education and development programmes. However, the autonomous view has retained its power within much policy and assessment. A view of literacy as a stable set of information processing competences exercised within different contexts is firmly embedded in the international surveys that hold increasingly important place in the imagination of policymakers and the general public across many countries (see Hamilton, Maddox, & Addey, 2015). How is it possible to understand and resolve these contradictory positions and the hold they

have over different parties who care deeply about the future of literacy? I hope to contribute to such an understanding in the next section of this chapter.

A SOCIOMATERIAL APPROACH TO LITERACY

Scholars of literacy studies have concentrated on describing the vernacular, everyday practices of reading and writing. They view institutions as selecting and privileging certain practices and policy regimes are one example of this. However, to date literacy studies has not elaborated much on the institutional processes involved in such privileging (Brandt & Clinton, 2002). The tools and methodologies of Science and Technology Studies (STS) and the material semiotics of Actor-Network Theory (ANT) can supplement and strengthen the insights of literacy studies to help us get a better grasp on the role of literacy within individual, collective and institutional life and to understand the contradictory strands of literacy that are in play. Building on Foucault's work on the geneology of social orders (Kendall & Wickham, 1999) ANT scholars have focused on the social, material and institutional processes that accompany specific technological innovations (see Callon, Lascoumes, & Barthe, 2009; Latour, 2005; Law, 1994 for clear introductions), exploring the performative, embodied 'doing' and 'making' of technologies and the multiple or collateral realities that are created in the process of realising a social innovation (see Law, 2013; Mol, 2002); They are concerned with the 'back-room' and often invisible workings of these projects, their failures as well as their successes. Their ideas can be applied to educational policies which can be seen as social projects that aim to organise and make tractable diverse everyday lived experience by applying new technologies of governance (see Fenwick & Edwards, 2010; Fenwick, Edwards, & Sawchuk, 2011; Hamilton, 2011). A socio-material approach to literacy therefore can explore how literacies are assembled through public discourses and materialised through everyday, educational testing and policy practices.

In the case of the international assessments of literacy, this involves conceptual discussions about how international literacy data is produced, for what purposes and under what systems of transparency and accountability – a move towards what Gorur (2014) has called 'a sociology of measurement in education'. It pays attention to the networks of people and things through which international assessments are assembled; the agencies that function as 'distant centres of calculation' and their invisible background work constructing and maintaining the performance of literacy as numbers. It focuses on the delegation of agency to assessment artefacts and procedures and the processes of change whereby social innovations become stable and naturalised so that they are no longer questioned.

Rather than seeing society as a set of structures within which individuals exert agency, ANT views it as a fluid space within which competing projects of social ordering (such as a scientific innovation or a government policy initiative) gather or lose influence. A project of social ordering is more or less powerful dependent on the size of the network of actants (both people and things) that gathers around it. Social

projects are not stable but are constantly emerging and also unravelling through everyday activities.

Such a view of social reality seems particularly apposite to the field of adult literacy given the contradictory context described above. We can see literacy being assembled as part of different projects of social ordering of which international tests are just the latest development. Policy strategies which come and go within national spaces are social projects in the making. In the case of the *Skills for Life* strategy in England, it is illuminating to follow it across the decade when it had the backing of a powerful actor network – a national government and its associated agencies together with international alliances – to the present when in a period of economic austerity and under a different political administration, this project is no longer being sustained and some of its achievements are already falling into disrepair despite the continuing strength of international influences.

While this approach emphasises the socio-material aspects of practice, it also acknowledges that in the creation of new social projects, a great deal is accomplished at the discursive level of social action. In other words, texts are seen as part of what constitutes socio-material practices. They are devices through which realities are framed and shared so that material effects travel through and with them. Texts are not inert beings but have real effects when they are activated through networks. Both literacy studies and sociomaterial theory thus maintain that artefacts, of which texts are a significant category, are integral to moment by moment social interactions, acting as points of contact and fixity for developing shared meanings within the flow of social life. Artefacts, then, have both material and semiotic aspects and as Burgess (2006, p. 9) notes, the events within which these artefacts are embedded can be seen as "analytical doorways into an understanding of social systems" (see also Burgess, 2008).

Sociomaterial theory uses ethnographic methodologies to analyse the trajectory of a project of social ordering, the flow and concentration of resources within this project through the enrolment of actors in networks. A key aspect of this methodology is to track the ways that artefacts (Latour calls these 'immutable mobiles' – see Law & Singleton, 2005) circulate through organisational structures, connecting different actors or agents and shaping specific social interactions in ways which tangle people in the very processes they also resist, a feature Callon (1986) calls 'interessement'. Artefacts mediate a number of key processes: *translation* which is the realisation of equivalencies between disparate entities in order to enrol them into the social project being developed; *deletion* of features seen as insignificant to the social project. ANT therefore has particular affinities to literacy and discourse studies through the notion of 'immutable mobiles' and through its emphasis on the 'framing' of competing social projects which, it claims, is accomplished through socio-material practices of which discourse is one dimension.

Latour (2005) has identified two further processes which help make the link with complexity theory more generally. The first consists of localising moves in which actors interpret and adapt general categories in the light of local contexts,

making locally appropriate choices among a set of options. The second, on the other hand, consists of globalising connects, which align local actors with collectives; synchronising individual actions with those of others. Such moves fit with the notion of glocalisation espoused by social complexity theorists. John Urry explains this as follows, emphasising the two-way flow of influence between local and global:

Within the phase space of various possibilities, the trajectories of many social systems worldwide are increasingly drawn into the attractor of "glocalisation" ... By this I mean that there are parallel, irreversible and mutually interdependent processes by which globalisation-deepens-localisation-deepens-globalisation and so on. The global and local are inextricably and irreversible bound together through a dynamic relationship, with huge flows of "resources" moving backwards and forwards between the two. Neither the global nor the local exists without the other. The global-local develops in a symbiotic unstable and irreversible set of relationships in which each gets transformed through billions of worldwide iterations dynamically evolving over time. (Urry, 2003, p. 84)

Urry's vision of social complexity emphasises the 'flows' of social and material events – agency is constantly shifting, social formations and networks are malleable. However, he also acknowledges the importance of the moorings around which institutional processes can be anchored. The framework of sociomaterial theory enables us to look at a range of glocalising mechanisms at work in the adult literacy context and in my own research I have focused especially on texts which, as a powerful class of 'immutable mobiles', may act as 'moorings' within global flows and networks. I have used both discourse analysis to focus on the policy texts (e.g. Hamilton & Pitt, 2011a, b) and sociomaterial theory to assemble, trace or excavate ethnographic evidence of their associated practices (Hamilton, 2009, 2011). In the final section of this chapter I summarise some of this work and related studies to show how these ideas can be applied to literacy.

CIRCULATING DISCOURSES OF LITERACY

It is possible to identify and analyse public discourses that have framed and 'stabilised' the problem of adult literacy at different points, and search for voices and silences. To illustrate this I will refer to two related examples: the assembling and unravelling of the *Skills for Life* policy mentioned above and the development of international assessments of adult literacy through the International Adult literacy Survey (IALS) and the Programme of International Assessment of Adult Competences (PIAAC).

This analysis, presented in more detail in Hamilton (2012a), involves a critical discourse analysis of key documents produced by the government and the media, accounts from key people and my own experience as a researcher in the field. Stories, or narratives, are not just expressed in the form of words. In the *Skills for Life* strategy, a great range of media were used: The Get On! campaign used Gremlin figures to encourage people to sign up for literacy and numeracy classes (see Hamilton &

Hillier, 2006). There were many kinds of associated logos and artefacts used in the campaign and images of successful learners were also circulated widely along with their testimonies of how literacy classes had changed their lives. The Gremlins also carried a kind of metaphor about literacy as a monster or demon to be struggled with and overcome and other metaphors were coined by policy makers and practitioners, such as 'spikey profiles' to describe the uneven competences of adult learners, 'the hard to reach' and the 'low hanging fruit' to talk about how difficult or easy it was to engage with different learners.

The other pervasive way in which narratives about literacy are expressed is through the use of numbers and statistics. Looking at how literacy and literacy learners are represented in policy documents shows that numbers are used to create narratives and to make arguments throughout, using statistical findings and visualisations such as tables which are used to relate numerical categories to many other different kinds of information.

This is illustrated in the government document announcing the *Skills for Life* strategy (Department for Education and Skills [DfES], 2001). New measurements of literacy generated by national and international research had produced increased estimates of the need for adult literacy from two to seven million adults. This figure is used to justify committing public funding to this policy area and is re-iterated many times through the 58 page strategy document (seven times as an overall figure and a further twenty times as the basis for estimates of subgroups in need of help). This figure was also widely reported in the media at the time. The neoliberal economic discourse familiar to this period is drawn on in the document to equate a lack of literacy with reduced employability and earnings and a threat to national prosperity:

A shocking seven million adults in England cannot read and write at the level we would expect of an eleven-year-old. Even more have problems with numbers. The cost to the country as a whole could be as high as £10 billion a year. The cost to people's personal lives is incalculable. People with low basic skills earn an average £50,000 less over their working lives, are more likely to have health problems, or to turn to crime. (David Blunkett, Secretary of State for Education in his foreword to *Skills for Life*, DfES, 2001)

In the strategy specific groups of adults are targeted as a 'priority' for literacy education, all of whom are characterised by negative attributes. These include unemployed and low skilled, short-term workers; benefit claimants, especially lone parents; homeless and those living in disadvantaged communities; prisoners and those on probation, those with drug and alcohol problems, mental health issues; refugees and other non native English speakers. The specification of such groupings, and the new discourses associated with them mark struggles between governments' desires to control their unruly populations at times of economic and social change, as well as to provide support for them. The groups represent the latest incarnation of an underclass that has been constructed by successive governments (see Welshman, 2006). Discourse theory argues that categorisations like this are social labels that

bring into being and maintain certain kinds of subjectivity (Pitt, 2002; Rose, 1989; Smith, 2005). The *Skills for Life* document introduces these new categories into the field of adult education, obliging British providers to focus their programmes on those who can be fitted into one of the groups described.

We can see in this example the important process of the discursive configuring of the policy space and the people within it. In Hamilton (2012b) I looked at other relevant dimensions of this public discourse including discourses defining literacy itself, discourses of learning and discourses of citizenship.

In the *Skills for Life* policy, literacy is referred to as 'basic skills' aligning it with vocational discourses. It is assumed that literacy tuition is always in English despite the fact that there are many different language varieties now in use across communities in the UK. Understandings about the diversity and situatedness of learning are constantly eclipsed by the preoccupation with institutional systems and standards (Hamilton, 2009) leaving informal learning spaces marginalised – either by being drawn into the procedures and scrutiny designed for more formal settings or by being left out of these systems to their own devices

Duty to learn becomes an obligation and a condition for benefits. In the case of adult literacy, views about rights and responsibilities for learning – who should pay, who is entitled and what kind of literacy is appropriate – are currently changing. These changes can be clearly traced by comparing current ideas with those expressed in the early days of the 1970s literacy campaign (see Hamilton & Pitt, 2011a). Dwyer (2004) has documented the prevalence of a discourse of conditionality across a wide area of contemporary social policy, both national and international. He suggests that this signals an underlying shift in thinking about citizenship and that this has material effects on the resources made available to different groups (such as welfare payments) as well as the educational opportunities on offer to them. In this example of the *Skills for Life* policy we can see how public discourses converge and flow across the domains of media, policy and enter the everyday where the lived experience of literacy may be very different from the ways in which it is talked about and justified.

The statistics used to promote the *Skills for Life* policy were produced from a mixture of home-grown national assessments and results from the International Adult literacy Survey (IALS) carried out by the OECD (2000). Comparative surveys like the IALS are increasingly ordering our knowledge of literacy across countries through the actions of apparently distant agents like the OECD and this makes them a prime site for applying a sociomatieral approach. Gorur (2011) does this by identifying steps in the construction of such surveys through which divergent realities and knowledges are translated into numerical test scores turning 'matters of concern into matters of fact' (Latour, 2004). The steps she describes are:

- What and Who to Measure?
- Choose items to represent domains of knowledge
- Translate these across cultures and languages

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- · Choose a sample to represent the population
- · How to measure and interpret findings?
- · Agree on methods of data collection
- Apply statistical techniques
- · Interpret indicators.

Researchers are beginning to investigate how these significant translations take place. Maddox (2014, 2015) has carried out ethnographic studies of test item construction and of the actual testing interactions that take place when teams from the testing agency enter peoples' homes. O'Keeffe (2013) takes the study of test interactions in a different direction by following the process of e-assessment used by the newest test of adult literacy, the Programme for the International Assessment of Adult Competencies (PIAAC). He uses methods of trace ethnography (Geiger & Ribes, 2011) to reconstruct the decisions and procedures encoded in the testing software, and shows how teacher agency is effectively delegated to the technology with a variety of consequences.

In tracing the life of an international test like the IALS or the PIAAC, we can also look at what happens next, at the ways in which the findings are reported and displayed in various formats to a range of audiences: the generic and specialist educational media, the research and policy communities via reports and policy briefings. Guidelines are developed for teachers alongside derivative instruments for use in national contexts. Visualisations are key to this stage of translation.

The results are read by people in different countries, both those that participate in the surveys and those that do not. This stage of translation through policy diffusion is also attracting research attention. Achieving 'buy-in' from the different national governments, creating a global community of competitors (see Rizvi & Lingard, 2010) is a key task for the OECD. Grek (2015) focuses on the main institutional players involved in developing international assessments – the OECD, the European Union (EU), the United Nations Educational, Scientific and Cultural Organization (UNESCO) – and the relationships between them. She describes the growing convergence between them as the assessments become stabilised as a recurrent feature of the policy landscape.

In her work on policy borrowing Steiner-Khamsi describes the international tests as a global solution in search of local problems and draws attention to the phenomenon of policy tourism as national governments rush to find out about the educational systems of the league leaders in order to inform their own policies (Steiner-Khamsi & Waldow, 2011). Addey (2015) explores the growth of international assessments in lower- and middle-income countries and what lies behind a country's decision to participate. She concludes that they employ strategies of both 'scandalising' and 'glorifying' their positions in the league of international assessment findings (Steiner-Khamsi, 2003) and form 'a global ritual of belonging'.

Using such analyses we can follow the actors, the artefacts and the discourses as the surveys travel through media, policy and educational practice in national

contexts that are by turns enthusiastic, variable or indifferent in their response to the findings. Pinsent-Johnson (2015) and Atkinson (2015) report from Ontario, Canada, on the reception of the IALS findings in a context that is highly supportive of OECD policy intentions. In this case, the literacy framework used in the international test is taken directly into educational practice through the development of curricula and screening tests based on it. This takes the survey beyond its original intended arena of application and both authors argue that this has negative effects on pedagogy and inequality among adult literacy learners.

Using data from two case study countries in Europe, Germany, Switzerland, Beiber, Martens, Niemann and Teltemann (2015) explore how far responses to the findings from PISA can be detected in educational policy. They look at how school reforms, in autonomous governance, curriculum and standards, have materialised in line with recommended OECD policy and conclude that the picture is very variable depending on the existing educational context and political constraints.

A study carried out by Evans, Hamilton and Yasukawa (in preparation) on the media coverage of the PIAAC findings in October-December 2013 focused on several countries placed differently in the PIAAC league table. The analysis from the UK offers an example of an indifferent response to this survey of adult skills. Detailed coverage was restricted to just a few articles carried in the two days immediately following the release of the findings, with data displays and items, quickly decaying to repeated headlines which are then incorporated into existing wider debates and blur into other survey findings - in this case issues about the curriculum and school-based examinations. Although the findings put the UK around the average of countries tested, the media adopt a language of catastrophe. The findings are not just reported in terms of other reference countries (Schriewer & Martinez, 2004) but are used to tell an intergenerational story about declining standards of literacy within the UK – a story that is highlighted in the OECD's country summary. Departing from the OECD's guidance, however, the three key dimensions of the PIAAC survey were unevenly reported with most focus on literacy and some on numeracy. While digital technologies are emphasised in the test itself, the media coverage and subsequent debate equates literacy with print and with 'reading books' ignoring other media and textual genres. The lifelong learning orientation of the PIAAC is completely overshadowed by a preoccupation with children and schools and, like the other national contexts we analysed, the voices of experts are everywhere dominant.

These examples show how the meanings and effects of literacy are assembled through public discourses and material strategies that reflect the agendas of particular interest groups whether politicians, teachers, advocates, religious leaders or psychometric experts This chapter has argued that, of the available theories of literacy, a sociomaterial approach can most productively describe and analyse this diversity enabling us to better understand and effectively intervene in educational projects whether local, national or international.

REFERENCES

- Addey, C. (2015). Participating in international literacy assessments in Lao PDR and Mongolia: A global ritual of belonging. In M. Hamilton, B. Maddox, & C. Addey (Eds.), *Literacy as numbers: Researching the politics and practices of international literacy assessment* (pp. 147–164). Cambridge: Cambridge University Press.
- Atkinson, T. (2015). Counting 'what you want them to want': Psychometrics and social policy in Ontario. In M. Hamilton, B. Maddox, & C. Addey (Eds.), Literacy as numbers: Researching the politics and practices of international literacy assessment (pp. 207–222). Cambridge: Cambridge University Press
- Bartlett, L. (2008). Literacy's verb: Exploring what literacy is and what literacy does. *International Journal of Educational Development*, 28(6), 737–753.
- Barton, D. (2007). Literacy: An introduction to the ecology of written language (2nd ed.). Oxford: Blackwell.
- Barton, D., & Hamilton, M. (2012). *Local literacies: Reading and writing in one community* (New edition). London: Routledge.
- Barton, D., Hamilton, M., & Ivanič, R. (Eds.). (2000). Situated literacies: Reading and writing in Context. London: Routledge.
- Beiber, T., Martens, K., Niemann, D., & Teltemann, J. (2015). Towards a global model in education?
 International student literacy assessments and their impact on policies and institutions. In M. Hamilton,
 B. Maddox, & C. Addey (Eds.), Literacy as numbers: Researching the politics and practices of international literacy assessment (pp. 165–186). Cambridge: Cambridge University Press.
- Blommaert, J., & Rampton, B. (2012). Language and superdiversity. Retreived from http://pubman.mpdl.mpg.de/pubman/item/escidoc:1615144/component/escidoc:1615143/WP_12-09 Concept-Paper SLD.pdf
- Brandt, D. (2005). Writing for a living literacy and the knowledge economy. *Written Communication*, 22(2), 166–197.
- Brandt, D., & Clinton, K. (2002). Limits of the local: Expanding perspectives on literacy as a social practice. *Journal of Literacy Research*, 34(3), 337–356.
- Burgess, A. (2006). Linking the local to the global: The role of the ILP in mediating across timescales. Unpublished paper, Literacy Research Centre, Lancaster University.
- Burgess, A. (2008). The literacy practices of recording achievement: How a text mediates between the local and the global. *Journal of Education Policy*, 23(1), 49–62.
- Callon, M. (1986). Some elements of a sociology of translation: Domestication of the scallops and the fishermen of St. Brieuc Bay. *Power, action, and belief: A new sociology of knowledge*, 32, 196–223.
- Callon, M., Lascoumes, P., & Barthe, Y. (2009). Acting in an uncertain world. An essay on technological democracy. Cambridge, MA: MIT press.
- Chouliaraki, L., & Fairclough, N. (1999). Discourse in late modernity (Vol. 2). Edinburgh: Edinburgh University Press.
- Collins, J., & Blot, R. (2003). Literacy and literacies: Texts, power, and identity. Cambridge: Cambridge University Press.
- Department for Education and Skills. (2001). Skills for life: The national strategy for improving adult literacy and numeracy skills. Nottingham: DfES Publications.
- Dwyer, P. (2004). Creeping conditionality in the UK: From welfare rights to conditional entitlements. Canadian Journal of Sociology, 29(2), 265–287.
- Evans, J., Hamilton, M., & Yasukawa, K. (in preparation). A comparative analysis of national media responses to the OECD Survey of Adult Skills: Policy making from the global to the local?
- Fairclough, N. (2003). Analysing discourse: Textual analysis for social research. London: Routledge.
- Fairclough, N. (2013). Language and power (2nd ed.). London: Routledge.
- Fenwick, T., & Edwards, R. (2010). Actor-network theory in education. London: Routledge.
- Fenwick, T., Edwards, R., & Sawchuk, P. (2011). Emerging approaches to educational research: Tracing the sociomaterial. London: Routledge.
- Freire, P. (1972). Pedagogy of the oppressed (Myra Bergman Ramos, Trans.). New York, NY: Herder.

- Gee, J. (1990). Social linguistics and literacies: Ideology in discourses. London: Falmer Press.
- Geiger, R. S., & Ribes, D. (2011, January). Trace ethnography: Following coordination through documentary practices. In System Sciences (HICSS), 2011 44th Hawaii International Conference on (pp. 1–10). Kauai, HI: IEEE.
- Giroux, H. A. (1988). Literacy and the pedagogy of voice and political empowerment. *Educational Theory*, 38(1), 61–75.
- González, N., Moll, L. C., & Amanti, C. (Eds.). (2013). Funds of knowledge: Theorizing practices in households, communities, and classrooms. London: Routledge.
- Gorur, R. (2011). ANT on the PISA trail: Following the statistical pursuit of certainty. Educational Philosophy and Theory, 43(s1), 76–93.
- Gorur, R. (2014). Towards a sociology of measurement in education policy. European Educational Research Journal, 13(1), 58–72.
- Gourlay, L., Hamilton, M., & Lea, M. R. (2014). Textual practices in the new media digital landscape: Messing with digital literacies. Research in Learning Technology, 21. Retrieved from http://dx.doi.org/10.3402/rlt.v21.21438.
- Graff, H. J. (2010). The literacy myth at thirty. Journal of Social History, 43(3), 635-661.
- Gregory, E., & Williams, A. (2000). City literacies: Learning to read across generations and cultures. New York, NY: Psychology Press.
- Grek, S. (2015). Transnational education policy-making: International assessments and the formation of a new institutional order. In M. Hamilton, B. Maddox, & C. Addey (Eds.), *Literacy as numbers: Researching the politics and practices of international literacy assessment* (pp. 35–52). Cambridge: Cambridge University Press.
- Gutierrez, K. D. (2008). Developing a sociocritical literacy in the third space. Reading Research Quarterly, 43(2), 148–164.
- Hamilton, M. (2009). Putting words in their mouths: The alignment of identities with system goals through the use of individual learning plans. *British Educational Research Journal*, 35(2), 221–242.
- Hamilton, M. (2011). Unruly practices: What a sociology of translations can offer to educational policy analysis. Educational Philosophy and Theory, 43(s1), 55–75.
- Hamilton, M. (2012a). Literacy and the politics of representation. London: Routledge.
- Hamilton, M. (2012b). The effects of the literacy policy environment on local sites of learning. Language and Education, 26(2), 169–182.
- Hamilton, M., & Hillier, Y. (2006). The changing face of adult literacy, language and numeracy 1970–2000: A critical history. Stoke-on-Trent: Trentham Books.
- Hamilton, M., & Pitt, K. (2011a). Changing policy discourses: Constructing literacy inequalities. International Journal of Educational Development, 31(6), 596–605.
- Hamilton, M., & Pitt, K. (2011b). Challenging representations: Constructing the adult literacy learner over 30 years of policy and practice in the United Kingdom. *Reading Research Quarterly*, 46(4), 350–373.
- Hamilton, M., Maddox, B., & Addey, C. (Eds.). (2015). Literacy as numbers: Researching the politics and practices of international literacy assessment. Cambridge: Cambridge University Press.
- Heath, S. B. (1983). Ways with words: Language, life and work in communities and classrooms. Cambridge: Cambridge University Press.
- Iedema, R. (2003). Discourses of post-bureaucratic organization. Amsterdam: John Benjamins Publishing Company.
- Jewitt, C., & Kress, G. (Eds.). (2003). Multimodal literacy. New York, NY: Peter Lang.
- Johnson, S., & Finlay, F. (2001). (Il)literacy and (im)morality in Bernhard Schlink's The Reader. Written Language & Literacy, 4(2), 195–214.
- Kalantzis, M., & Cope, B. (2012). Literacies. Cambridge: Cambridge University Press.
- Kendall, G., & Wickham., G. (1999). Using Foucault's methods. London: Sage.
- Kress, G. (2009). Multimodality: A social semiotic approach to contemporary communication: Exploring contemporary methods of communication. London: Routledge.
- Lankshear, C., & Knobel, M. (Eds.). (2008). Digital literacies: Concepts, policies and practices. New York, NY: Peter Lang.

- Latour, B. (2004). Why has critique run out of steam? From matters of fact to matters of concern. Critical Inquiry, 30(2), 225–248.
- Latour, B. (2005). Reassembling the social: An introduction to actor-network-theory. Oxford: Oxford University Press.
- Lave, J. (1988). Cognition in practice: Mind, mathematics and culture in everyday life. Cambridge: Cambridge University Press.
- Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. Cambridge: Cambridge University Press.
- Law, J. (1994). Organizing modernity. Oxford: Blackwell.
- Law, J. (2013). Collateral realities. In F. D. Rubio & P. Baert (Eds.), Politics of knowledge (pp. 156–177). New York, NY: Routledge.
- Law, J., & Singleton, V. (2005). Object lessons. Organization, 12(3), 331-355.
- Maddox, B. (2014). Globalising assessment: An ethnography of literacy assessment, camels and fast food in the Mongolian Gobi. *Comparative Education*, *50*(4), 474–489.
- Maddox, B. (2015). Inside the assessment machine: The life and times of a test item. In M. Hamilton, B. Maddox, & C. Addey (Eds.), *Literacy as numbers: Researching the politics and practices of international literacy assessment* (pp. 129–146). Cambridge: Cambridge University Press.
- McLaren, P., & Lankshear, C. (1993). Critical literacy and the postmodern turn. In P. McLaren & C. Lankshear (Eds.), Critical literacy: Politics, praxis, and the postmodern (pp. 379–419). New York, NY: State University of New York Press.
- Menezes de Souza, L. M. T. (2008). Beyond "here's a culture, here's a literacy": Vision in Amerindian literacies. In M. Prinsloo & M. Baynham (Eds.), *Literacies*, *global and local* (pp. 193–213). Amsterdam: John Benjamins.
- Mol, A. (2002). The body multiple: Ontology in medical practice. Durham, NC: Duke University Press.
- Moser, C. (1999). *Improving literacy and numeracy: A fresh start: The report of the working group.*London: Department for Education and Employment.
- O'Halloran, K. L. (2008). Mathematical discourse: Language, symbolism and visual images. London: Continuum.
- O'Keeffe, C. (2013). Technology enhanced assessment practices. Paper presented at the ALT-C 2013, Nottingham University, England.
- Organisation of Economic Co-operation and Development (OECD). (2000). Literacy in the information age: Final report of the International Adult Literacy Survey. Paris: OECD Publishing.
- Pahl, K., & Rowsell, J. (Eds.). (2006). Travel notes from the new literacy studies: Instances of practice. Bristol: Multilingual Matters.
- Pennycook, A., & Otsuji, E. (2015). Metrolingualism: Language in the city. London: Routledge.
- Pinsent-Johnson, C. (2015). From an international adult literacy assessment to the classroom: How test development methods are transposed into curriculum. In M. Hamilton, B. Maddox, & C. Addey (Eds.), *Literacy as numbers: Researching the politics and practices of international literacy assessment* (pp. 187–205). Cambridge: Cambridge University Press.
- Pitt, K. (2002). Being a new capitalist mother. Discourse and Society, 13(2), 251–267.
- Rizvi, F., & Lingard, B. (2010). Globalizing education policy. London: Routledge.
- Rose, N. (1989). Governing the soul: The shaping of the private self. London: Routledge.
- Schlink, B. (1998). The reader. London: Phoenix Books.
- Schriewer, J., & Martinez, C. (2004). Constructions of internationality in education. In G. Steiner-Khamsi (Ed.), The global politics of educational borrowing and lending (pp. 29–53). New York, NY: Teachers College Press.
- Scollon, R. (2001). Mediated discourse: The nexus of practice. London: Routledge.
- Scribner, S., & Cole, M. (1981). Unpackaging literacy. Writing: The nature, development, and teaching of written communication, 1, 71–87.
- Smith, D. E. (2005). Institutional ethnography: A sociology for people. Lanham, MD: Rowman Altamira. Steiner-Khamsi, G. (2003). The politics of league tables. JSSE – Online Journal of Social Science Education. 2(1)
- Steiner-Khamsi, G., & Waldow, F. (Eds.). (2011). *Policy borrowing and lending in education*. London: Routledge.

Street, B. (1984). Literacy in theory and practice. Cambridge: Cambridge University Press.

Street, B. (2005). Literacies across educational contexts: Mediating learning and teaching. Philadelphia, PA: Caslon Pub.

Street, B., & Lefstein, A. (2007). *Literacy: An advanced resource book for students*. London: Routledge. Street, B., Pahl, K., & Rowsell, J. (2009). Multimodality and new literacy studies. In C. Jewitt (Ed.), *The Routledge handbook of multimodal analysis* (pp. 191–200). London: Routledge.

Taylor, C. (2007). Modern social imaginaries. Durham, NC: Duke University Press.

Urry, J. (2003). Global complexity. Cambridge: Polity Books.

van Leeuwen, T. (2008). Discourse and practice: New tools for critical discourse analysis. Oxford: Oxford University Press.

Welshman, J. (2006). Underclass: A history of the excluded 1880–2000. London: Continuum Books.

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