The scrumpled geography of literacy

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Introduction
The learning paradigm has emphasised the practices in which adults engage outside of formal education. Learning can be both lifelong and lifewide. This insight is not new, although its policy uptake has been more recent and in many ways more restrictive. In recognition of lifewide learning, there have been many attempts to value and give recognition within more formal provision for broadly experiential and/or informal forms of learning.

This attempt to relate everyday learning to the curriculum can also be seen in research on literacy. While often very different from those literacy practices to be found in the curriculum, research has identified the diverse ways in which adults engage in forms of reading and writing in their everyday lives (Barton and Hamilton 1998). How these practices do or could relate to the literacy practices of the curriculum has become an important pedagogical question (Ivanic, *et al.* 2007). This is the focus of this paper.

Drawing upon the experience of the Literacies for Learning in Further Education (LfLFE) research project in the UK (www.lancaster.ac.uk/lflfe), this paper explores the attempt to identify and conceptualise those 'border literacies' which may act as resources for learning and attainment for adults within their college courses. This paper outlines, drawing upon actor-network theory, the conceptual innovations that we found necessary arising from our data analysis, extending existing work on situating practice and boundary crossing to posit a conceptual landscape that we term the 'scrumpled geography' of literacy. This landscape is one in which the concepts of purification, naturalisation, translation and folding are key (Latour 1993, Bowker and Star 1999). The paper therefore offers conceptual innovation in relation to issue of literacy, learning and education in the current context that move away from more standard notions of transfer and/or border crossing (Edwards and Miller 2007).

The *Literacies for Learning in Further Education* research project
The LfLFE research project was funded for three years from January 2004 as part of the United Kingdom's Teaching and Learning Research Programme (TLRP). The project involved collaboration between two universities and four further education (FE) colleges in England and Scotland. A central concern for the project was to understand how the literacy practices required of college life and being a student relate to the wide range of students' literacy practices in their everyday lives. We explored different ways of mobilising students' everyday literacy practices to enhance their learning on 32 courses in eleven curriculum areas. The intention was to achieve a critical understanding of the movements and flows of literacy practices in people's lives: how literacy practices are ordered and re-ordered, mobilised across domains and what artifacts might mediate such mobilisations.

In the LfLFE project, literacy practices were initially viewed primarily as 'resources' for learning across the curriculum. Our focus was on: the reading and writing which are entailed in learning on college courses, that is, what have been termed by some (e.g. Wyatt-Smith and Cumming 2003) 'curriculum literacies'. We were researching the literacy practices in which students participate in order to be successful in learning the content (however broadly conceived) of their vocational, academic or leisure courses, and, where necessary, in demonstrating that learning in order to gain qualifications through assessment tasks. Inevitably, this brought into focus questions of what counts as literacy and the differential values placed upon different literacy practices. In other words, it raised questions of difference and its affirmations and denials in assembling the educated subject, and how best to conceptualise this.

Literacy practices are multiple, and different in different domains of our lives (Barton and Hamilton 1998) and because some literacy practices are likely to be viewed as more dominant or influential, there is every possibility that everyday practices are denied within educational contexts. This is despite the many pedagogical attempts to relate learning across contexts, e.g. simulations, the recognition of prior learning and work-based learning. It was this that led us initially to conceive our task as being to support the *border crossing* of literacy practices from the informal (everyday) to the formal (college). This was in order that they could become resources for learning and authorised in the teaching and assessment associated with attainment in particular subject areas.

Drawing upon situated learning theory and activity theory, our initial focus was on the movement of literacy practices from one *context* to another – from the everyday to the college – thereby assuming their situatedness within those separate and bounded contexts. We did not initially consider the work that was involved in situating those literacies within those contexts. In other words, their situatedness was taken for granted as a background context, rather than being identified as an effect of specific work to naturalise them, that is, to take them for granted.

We were thus entangled in a metaphorical complex that is often at the core of educational discourses, which bring to the fore notions of journeying, travel and mobility from one bounded context to another. Here we were located theoretically within existing literature on situated learning (Lave and Wenger 1991), boundary objects (Star 1989) and boundary crossing (Wenger 1998). However, this set of assumptions was challenged in the course of the project. We have come to question these metaphors of movement, border crossing and flow as insufficient in themselves to develop an adequate language of description for what was going on in the data, for such practices also entail work to purify and naturalise specific literacy practices as literacy per se.

Purification, Naturalisation, Translation and Folding
This led us initially to draw selectively upon actor-network theory (Latour 1993, Nespor 1994) as an alternative through which to describe the alignments of animate and inanimate actants in the naturalisation of certain

literacy practices as effects of purification, and the translations which contribute to and resist this effect. Here acting is not restricted to the intentional practices of humans, but is an aspect of specific networks of the animate and inanimate world. Treated equally – symmetrically – the animate and inanimate are both actants within a network that makes things happen.

This language of description draws upon the concepts of purification, naturalisation, translation and folding. Purification refers to the way in which the identity of the educated subject is assembled upon the basis of the denial of the play of multiplicity and difference and through the valuing of specific practices over others. Naturalisation refers to the outcome of purification insofar as the object becomes taken for granted rather than viewed as the result of contingent practices. Learning in educational contexts entails purification and naturalisation through the standards practiced in the construction of the curriculum The setting of standards requires value judgements and practices about what is to be included and excluded – purification – and once this work is achieved, its common sense existence is naturalised. Thus only certain forms of reading and writing become accepted as literacy.

What we term scrumpling refers to the possibilities for experimentation in pedagogy and curriculum if we adopt an alternative topography. This topography points to the possibility of developing alternative practices of naturalisation based not upon purification alone but upon a framing of standards within a logic of difference, which embrace practices of translation. Translation 'creates mixtures between entirely new types of beings, hybrids of nature and culture' (Latour 1993: 10). The final component in our theoretical framing, what is more conventionally known as conceptualising 'transfer', is a conjecturing of the relationships among literacy practices across different 'strata' of social life. We prefer the term strata to the term contexts, because it disallows the tendency to retreat to notions of context as container and of life as a two-dimensional landscape. It insists on a conceptualisation of the ways in which domains of social life are juxtaposed in a more three-dimensional way - as more scrumpled, more volatile, yet potentially more solid, if only stabilised for now. This alternative is served better by these geological metaphors of social life operating in simultaneous and often compacted strata of practice, e.g. folding, rather than by geographical metaphors of social life as a two-dimensional map in which contexts are defined by areas and borders. In taking up this alternative topography, we open up ways of understanding the mobilisation of everyday literacy practices in the curriculum.

A question arises whether we seek to relate different literacy practices across strata within the current regime of purification or to change that regime. The former is framed within the logic of an existing semiotic landscape of situated contexts, while the latter arises in and from a more scrumpled geography in which the very possibility for purification per se is thrown into question. Such a conceptualisation can entertain the prospect of a new regime emerging which contains within it the desire for difference and multiplicity negotiated as a constant tension within the pedagogic (en)counter. Here there is the constant

play of purification and translation dependent upon the networks of actants practiced, which may vary significantly within the same physical location.

We use the spatial metaphor of folding through which to conceptualise the work of this project, where pedagogic practice entails work to naturalise the hybrid, in which the naturalisation is framed within a logic of creolisation *and* purification. Creolisation entails the recognition of the other as within rather than outside in purification practices. There is thus a constant tension and struggle over that which is inside and outside in pedagogic practices of difference. This contrasts with some uptakes of the notion of difference in educational discourse which tends to reinscribe a liberal view of diversity and a humanism, which privileges humanity and the explanation of human endeavours. The approach we are suggesting here seeks to explain the human and natural within a single framework of understanding.

We are therefore conceptualising literacies for learning something as co-emerging with identification, purification and translation, which enable the realisation of those practices as signifying learning based upon different naturalisations from those that prevail at present. This implies that any observation about learning something needs to be accompanied by observations regarding what has been naturalised and under what regime, the semiotic practices associated with the learning, and consequences for the identity of participants. These are not systems, nor communities of practice, each of which can be read as a series of containers, between which people, objects, practices and meanings move. Here we point to the significance of thinking in terms of folding in contrast with notions of crossing borders or boundaries from one context to another. Folding entails work and can take multiple different forms signifying the play of purity and hybridity possible in naturalisation. It also has the possibility of unfolding, which means that literacy practices are insecure, the work to keep them naturalised needs to be sustained if those practices are to continue.

Simple dichotomies or binaries, therefore, such as informal/formal, vernacular/formal, contextualized/decontextualized, participation/acquisition and purification/translation prove inadequate for investigating literacies for learning between strata. This points to the limitations of a border crossing metaphor in conceptualising the possible foldings of actants between strata, despite its popularity among some as an alternative to notions of transfer (Tuomi-Grohn and Engestrom, 2003). It also points to the necessity for a more sophisticated understanding of contextualising. (For orienting discussion, see Edwards and Miller 2007, and Edwards and Fowler, 2007).

Thus the metaphors of border literacies and of mobilising literacy resources from one domain to another need to be put aside in the framing of our data, as sustained by a set of assumptions that we no longer see as theoretically adequate to the pedagogical challenges we are addressing. We do not see these processes as simple border-crossings therefore, but as complex reorientations or changes in foldings and in naturalisation processes, which are likely to entail effort, awareness-raising, creativity and identity work on the part of all concerned. These foldings enact different networks of actants.

What results is a focus on naturalising as an emergent element of related literacy practices, rather than context as a bounded, pre-existing container for them. Naturalising is itself an outcome of a set of practices – practices of folding, translation and purification - through which a context emerges, one form of which might be as a bounded container. Here different networking practices make different contexts, meaning that the same objects may be part of different purifications, by being networked differently. Literacies for learning therefore rely on the naturalisation practices in play of all actors and the power and hierarchies of value that make certain naturalisations more likely than others. Purification entails work to naturalise certain practices as literacy in specific forms of situatedness.

The relationships between literacy practices, learning and the curriculum are dynamic and complex, their characteristics are not symmetrical nor constant across contexts, not least because different forms of work achieve different contexts. Different naturalisations may bring forth different interactions between literacy use and the learning of different knowledges and skills. The LfLFE project sought to bring these different interactions to the fore, to challenge the basis on which particular forms of purification and naturalisation are achieved, and to move forward the conceptual apparatus for describing such processes.

What role might we identify here for boundary objects? In trying to frame a better understanding of literacies for learning in terms folding, we cannot totally disregard the existence of borders that bound – physical, cognitive, affective, imaginary. We cannot wish purification away. In folding, which may bring the near or far into relationship depending on the nature of the folds, boundary objects may help to make that relating possible. They help to do the work of naturalising literacy practices.

The role of boundary objects
The notion of boundary objects was developed in actor-network theory (Star, 1989), but has also been taken up by Wenger (1998) in his conceptualisation of communities of practice. It is also to be found in activity theory. For Wenger (1998: 107) boundary objects work at the edges of communities of practice mediating their external relationships; 'they enable coordination, but they can do so without actually creating a bridge between the perspectives and the meanings of various communities'. However, I would caution against a simple uptake of Wenger's view of boundary object, as these sit at the boundary of communities, whereas in actor-network theory, they sit within the middle of a network. The latter is more in keeping with the theoretical position adopted here, as the former still seems to indicate the notion of context as container rather than the more relational understanding.

In actor-network theory, boundary objects are

   plastic enough to adapt to local needs and the constraints of the several
   parties employing them, yet robust enough to maintain a common identity
   across sites. [. . .] They have different meanings in different social worlds but

their structure is common enough to more than one world to make them recognizable, a means of translation. The creation and maintenance of boundary objects is a key process in developing and maintaining coherence across intersecting social worlds. (Star and Griesemer 1989: 393).

'Like the blackboard, a boundary object "sits in the middle" of a group of actors with divergent viewpoints' (Star 1989: 46). Such objects are not merely material; they can be 'stuff and things, tools, artefacts and techniques, and ideas, stories and memories' (Bowker and Star 1999: 298). They are objects which are not contained or containable by context, but can be folded between differing strata, dependent on the various affordances at play and the work entailed in naturalising them differently within a network..

Objects exist, with respect to a community, along a trajectory of naturalisation. This trajectory has elements of both ambiguity and duration. It is not predetermined whether an object will become naturalised, or how long it will remains so, rather practice-activity is required to make it so and keep it so. (Bowker and Star 1999: 299)

This trajectory of naturalisation entails a 'forgetting' of the conditions which gave rise to the object in the first place; a process of black boxing. Boundary objects do not sit between the borders of different contexts, at the edge, but express a relationship between strata brought together through the practices of folding, purification and translation. These can be based upon pedagogic performances which seek to make certain connections rather than deny them or simply, because they are the tokens through which people relate their practices between one strata to another. They do not pre-exist practices, but rely on those practices to make them into boundary objects.

As boundary objects are understood as not merely material objects, but can be 'stuff and things', there is the possibility for quite refined understandings of changes in practice that can alter the possibilities for folding and naturalisation. This suggests the need to explore the micro-practices of literacy. The tutors on the LfLFE project were working to fine-tune the reading and writing on their courses in order to achieve maximum resonance with students' everyday literacy practices. They found that what can be folded from one stratum to another are not fully-formed social practices, and not texts or technologies on their own, but aspects of the practices such as collaborativeness, or non-linear processing. The implication of this for literacy studies is that while 'macro-literacy practices' are situated and cannot be mobilised wholesale to other contexts, 'micro-literacy practices' can be sufficiently naturalised to more than one stratum, to the extent that they can even be folded between them.

The scrumpled geography of literacies for learning
The alternative topography of literacies for learning I now seek to develop entails engaging with the multiplicity and difference we have found in learning in colleges and everyday lives, and a recognition that binary either-or logic, purification and technical rationality will not be sufficient for pedagogic practices. Literacy practices are temporary conglomerations, multiples in

themselves. While the current regime of purification and naturalisation is built upon the exclusion of otherness, there are possibilities for an alternative regime to be developed which creatively seeks the folding of the micro-practices of literacy into different strata. This entails a different regime of purification which embraces otherness and naturalises creolisation. This is messy, emergent and non-linear and cannot be mandated in advance. Rather than seeking to flatten the landscape to expand the horizon across which learners move, it entails scrumpling the landscape to explore different possibilities for conglomerations within and between strata. This can never be entirely an open process as not all micro-practices stick, but this alternative regime at least provides the possibility for an education which is not based upon a reified standard of literacy to be achieved, but seeks to engage with the work that can be done through the creolisation of literacy practices. Such a landscape is never entirely dormant, not least because of the multiplying possibilities for literacy that are emerging from the increasing foldings of, for example, people, artefacts, signs, and the diverse effects of such networks and the play of purification and translation. In this situation, to what extent is adult education a regime of purification alone or one in which mutliplicity, translation and creolisation is embraced and what foldings is the learning paradigm capable of?

Acknowledgements

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