Pre-print of Wood, A. (2016) 'School as Thing and Process: Using Scales to Complexify Schools.' In Singh, J. N., Kantara, A., and Cserző, D. (eds) *Downscaling Culture: Revisiting Intercultural Communication*. Newcastle: Cambridge Scholars, pp. 141–164.

School as Thing and Process: using scales to complexify schools

Abstract:

Schools operate in increasingly competitive environments which encourage them to act and appear as definite, bounded things in definite, bounded spaces. Yet each school is also a process, a constant coming-into-being enacted by students, staff and others. In this chapter, I argue that both are useful ways of understanding school since they help to make sense of the rich and varied activities that take place there. The successful projection of school as a thing is therefore dependent on how the process of school happens and is communicated. An aggregation and congealing of space-times helps to promote one, particular, space over others and transform a complex, heterogenous array of space-times into a phenomenon more easily recognised as a thing with given physical and discursive characteristics.

I use the concept of scales, downscaling and movement between scales after Singh (this volume) to flag up a range of differing aggregations and revealings of detail as a way of accounting for rather than simplifying complexity (after Blommaert, 2015). I argue that scales afford useful epistemological manoeuvrings that juxtapose different knowledges and can produce second order knowledges in the process, what I call “analytic friction”. If life requires some level of abstraction to make it manageable, it is also the case that complexity can bring some clarity. Analytic friction, gained in this example by moving between scales, can both complexify *and* render communicable what school is and how it comes to be. Analytic friction therefore grants us some purchase on the changing and complex nature of school in the 21st century.

Keywords: analytic friction; school-as-thing; school-as-process; complexity; space-time

INTRODUCTION

This chapter revisits the concept of school and uses theoretical developments of spatiality in the social sciences to do so. It argues that the process whereby a school comes into being and is then maintained and recognised as a school is inevitably complex since the process is a coordination of interactions between temporally and spatially distant situations. These space-times may already be connected before people act in them, by materials and discursive artefacts that 'belong' in more than one place or they can be brought into relationship by people's actions forging new connections. Any given space-time therefore recalls others and is dependent on others in order to produce meaning in a new context.

And yet schools operate in increasingly competitive environments which encourage them to look and act as if they were unique, pre-established things. This helps to bolster the impression that they have a solid and stable identity. Rather than assume a process- and thing-view of schools are irreconcilable, the chapter shows how scales and the different perspective they afford allow useful epistemological manoeuvrings that can help us understand the richness and complexity of school and hence the value of seeing school as both thing and process.

Schools are complex institutions, always importing other meaning from other areas and times of life. This process view of a school can seem to conflict with more static conceptions of school which attempt to hold the world still in order to make it easier to navigate, to engage with or to control. Seeing school as an a priori-established, atemporal space or container of activity is a neater, easier way to understand school-ish activities. But denying the complexity of school may also deny the realities many participants experience. In this sense school, or the particular version of school that is encouraged as the orthodox one, is a little like the winner in a game of musical chairs; whilst other representations or experiences of school are possible, only one wins and becomes communicated.

This chapter juxtaposes these two ways of seeing school – as an already existing, monolithic thing and as a constellation of permeable space-times, processes reliant on other histories, futures and spaces – in an attempt at producing some kind of analytic friction. What I mean by friction is helped by referring to Singh's (this volume) handling of scales. Key, I think, to this concept having explanatory power is the insistence that a plurality of scales be available for analysis, that “it is the *movement between scales* that becomes informative for analysis” (this volume, 11, emphasis in the original). In spatial terms, this chimes with Lefebvre's proposition calling for recognition of a range of conceptions of space since “We know that space is not a pre-existing void, endowed with formal properties *alone*” (1991, 170, my emphasis). Rather than one scale superimposing its dominant way of seeing and knowing over another, the more interesting and analytically useful manoeuvre is this “movement between scales”.

Friction then is the result of “rubbing” these alternative ways of knowing about schools against each other as if they were pestle and mortar. This friction can help us understand better the gains and losses each perspective brings, relative to each other. It can also bring into sharper relief the epistemological work that each relies on in order for their presentation of reality to be successful. It is in the production of alternative knowledges (emphasising some features, obscuring others) that different scales, juxtaposed, can be seen to work most effectively.

SCHOOLS: THE SPACE-TIMES THEY ARE A CHANGIN’.

The data I use to illustrate the effects of these different scalings of school are from an on-going ethnography in a secondary Academy in the north of England and previous work as an English teacher in a London comprehensive. I use artefacts which are themselves produced over a range of scales from a student's timetable to a school's system for benchmarking student progress over the five years of secondary school. In this sense, these artefacts are products and producers of particular space-times; they allow school life to be seen but they also perform it. They operationalize space-times within and outside of students after Fairclough for whom operationalization is a “dialectical process – it is a matter of representing being transformed into and internalized within ways of acting and ways of being and material realities” (2005, 27). In using these artefacts, my aim is to show how scales are not only a useful heuristic for the social scientist studying schools but a tool in the daily

production of school by students and teachers. We could also say that these artefacts go some way to producing and maintaining the categories of ‘student’ and ‘teacher’ themselves.

As indicated, the context for this discussion is England. England is both a special case and an indication of where other national education systems may follow. For example, together with the other nations that make up the United Kingdom, it is one of only three countries (Spain and USA are the other two) trialling the PISA¹-Based Tests for Schools (OECD, online). England also appears to have integrated this test further into its national education infrastructure and intends a form of partial benchmarking of its students’ GCSE² exam results to other countries’ students’ performances from 2017 onwards (Ofqual 2014, online). In short, where England is going may deserve attention because it is new and unpredictable but also because the general direction appears to be part of wider trend.

As it is, the parameters within which English schools operate and how they consequently communicate themselves is shifting rapidly. In addition, Western educational institutions generally have to decide how to respond to the fact that “learning has shifted beyond traditional sites and ... the nature of knowledge is uncertain” (Burke and Grosvenor 2008, 15-16). In their 2008-11 study of one English school’s attempt to radically change teaching and learning, Lewin and Solomon found instead that the new forms of school operation can limit innovation. They saw a situation where “the 19th century structure of classrooms, subjects, and timetables [was] being replaced by a 21st century structure of electronic monitoring and data tracking” (2013, 387). In England especially but some other countries too, easy-to-compare school exam outcomes together with notional choice in educational provision are used to extract ever-increasing performance – schools see (and frame) their activities in relation to other schools. Hence the environment encourages ever more change in both what schools do and are.

This means that where a school can be thought to start and stop is also changing. Schools now proliferate “upwards” via scales of international assessment and comparability (like PISA) that extend the school experience beyond national boundaries, producing space-times that position and relate students, teachers and curricula in particular ways. This movement upwards or ever-greater abstraction, is accompanied by a “downwards” proliferation too, into students and teachers. The initial purpose of schooling in the early 19th century was to promote numeracy and some religious instruction in a limited age range of a selection of the population. Over the years this grew incrementally to include younger and older groups of children. Study-wise it extended too to include literacy, then the natural sciences, literature, history, geography and so on.

In the 20th century some of this turned outwards, towards developing self-expression. And the curriculum ultimately took responsibility for the child and young person outside of school, promoting sexual health as well as anatomy, home as well as school work, healthy eating and well-trained minds. By the early 21st century, many students could identify as a “5a” or a “4c”. Nominally, this was a labelling of academic performance but it was operationalized as a socially produced space in the form of a national scale that stretched temporally from the end of primary school to the end

¹ PISA (the OECD’s Programme for International Student Assessment) is a survey designed to evaluate and compare countries’ educational systems through the use of tests given to fifteen-year-old students of participating nations and states. The new PISA-Based Tests for Schools provide information more suitable for individual schools to judge their own performance.

² GCSE (General Certificate of Secondary Education) is an award (commonly exam-based) of students’ educational achievement taken at the end of the eleventh year of compulsory schooling (typically age sixteen). Though used in many countries, in England GCSEs also serve as an indicator of school, regional and national performance.

of compulsory schooling (see also Fig [Chapter No.]-1. This space went further than anything before, deeper into students and wider too to “see” their individual performances against nationally aggregated and averaged rates of progress.

In England, there are plans to continue this trend. As briefly discussed above, it is intended that from 2017 the grade allocation of domestic GCSE exams in England be partially benchmarked against the aggregated results of a basket of countries’ young people’s academic performance. For example, a student in Bradford’s exam grade allocation will be brought into relation with his or her international peers’ performances. One result is that it will be harder than ever to identify the limits of school. Where this thing starts and stops is less clear and so challenges the usefulness of a mono-conceptual, school-as-thing, perspective.

Hence this chapter shows how a downscaling (and upscaling) of the concept we label as school is not only an analytical move adept at exploring what it means to understand school in the 21st century but an ontological re-evaluation. Seeing school as a process as well as a thing helps us to understand where school is and appreciate its (always changing) complexity. This may actually make it easier to understand the ways in which what it is are different from what it was and what it may be encouraged to become. Complexity can bring some clarity I argue.

CHANGING SCHOOLS MEANS CHANGING OUR TOOLS FOR SEEING SCHOOL

If schools are changing, our concepts for understanding them should change too. A taken-for-granted concept of school (especially a concept based around a brick and mortar building) will be an increasingly impoverished one. When Singh (this volume, 2) calls for “a systematic de-construction of [the] interpretation of constructs as facts”, we would therefore do well to heed his invitation and pull school apart too. Its workings, as much as any other act of intercultural communication, deserve examination.

And if school is both a thing and a process then it must be much more than a single, atemporal location. Whilst its material form, through gates, insignia, size and so forth help to demarcate its school-like identity, it is also a coming into being, something that has to be re-made and re-shaped each day. Comings and goings, lessons and playtimes also help to re-affirm the school’s existence as a school. As with other facts, the school as fact should occasionally be challenged since we tend to misattribute its now recognised shape and form to an inevitability, a necessity. In other words, whilst facts are made their construction is often de-socialised – how they were made by people is often forgotten (Bowker and Star 2000, 33). It is therefore hard to “understand cultural practices unless ‘culture’, in the restricted, normative sense of ordinary usage, is brought back into ‘culture’ in the anthropological sense” (Bourdieu 1984, 1). But returning people to the picture is not really a return, it is the state of affairs, anterior to an abstraction into a condensed “culture”. It follows, therefore, that we could – and should – re-visit a school culture by exploring how people draw on other situations in the resources for making meaning in and of schools whether for their own benefit or for communicating the idea of school to others.

A challenge for research in education is to find a methodology that recognises rather than denies the complexity involved whilst also avoiding the bind where complexity inevitably leads to chaos. The proposition of downscaling cultures and in particular of moving between scales is promising. It is the result of learning some lessons from the past such as this one illustrated by Margaret Archer:

one of the biggest deviations in the 1970s sociology of education (which had its parallels in other specialisms) was not the determination to study those neglected educational processes and practices taking place within, but the methodological decision that this could be done by shutting the classroom door and bolting the school gates because everything needed to explain what went on within was found inside the small enclosure. (1995, 11)

Whilst opening the doors and gates that lead to other contexts may make studying educational sites more complex, it also makes for a downscaled perspective, closer to life-as-it-is-lived rather than it-might-be-generalised approach. It should be an explicit aim of our attempts to understand school life, argues Jan Nesor:

Instead of obscuring how activities are anchored in historically situated places and times, a goal of research would be to explicate how such anchored activities, separated in time and space, get linked together to form a shared world (2000, 558).

We need useful and manageable ways of seeing complexity if we are to do epistemological and ethical justice to the sites we study. An understanding across a range of scales helps to do that. It provides a richer focus on the work of time as well as space as well as on what they compose, together. It is not just that independently, “the spatial is integral to the production of history, and thus to the possibility of politics, just as the temporal is to geography” but that there is a form of “joint constitution through the interrelations between [the] phenomena” of space and time resulting in “space-time” (Massey 1992, 84).

A conception of school as one space only, detached from its temporal context or indeed, other space-times, is a reductive technique and simplicity just won’t do for studying social action as far as is possible, live and in situ but always recalling other space-times. Hence Jan Blommaert’s re-engagement with Bakhtin’s “chronotopes” (2015; Bakhtin 1981), literally time-space, is another way to explore how people organise experience and are themselves, in part, organised through the work of space and time. Schools are interesting because of the particularly dense ways they use time and space together to construct an institutional life, regulate the lives of individuals and provide a bigger canvas more generally on which further space-times are produced. The “inseparability” of space and time referred to by both Bakhtin (1981, 84) and Massey (1992, 84) points towards a way of seeing social life in the multiple and rejects a view establishing isolated events as if happening in one flow of time across discrete spaces.

Before moving on and illustrating how this might work in practice, through an example, I make one final stop to note now that for clarity it is sometimes necessary to discuss the work of “space” and, separately, “time”. This is a rhetorical manoeuvre for the purposes of analysis only; space is never lived atemporally nor is time experienced without a sense of it being related, embedded or the product of a particular space.

EXAMPLES OF SPACE-TIMES: FROM GHETTOS TO SCHOOLS

My first illustration of a space-time is that of the Venetian Ghetto. Before returning to schools, I start here to show a number of things. Firstly, because the ghetto offers a particularly dramatic but more obviously historical example of a space-time: it prepares a way for seeing schools whose history is just as present but less explicitly so. Secondly, the ghetto shows the importance of the social and economic context to space-times. Finally, contemporary uses of the word ‘ghetto’ illustrate how space-times are often reduced to examples of *space* only.

The Venetian Ghetto of the sixteenth century was a produced space-time for the coordination of bodily, economic and social control over the Jewish population. At the risk of tautology, the Venetian proto-capitalist system required capital and capital needed to move in order to be available. It did, but the Doge (the leader of the Venetian Republic) established that it could only move between the times indicated by the ringing of the early morning Marangona bell and midnight (Calimani 1995). Outside of this time, the Jews (as the state's only legally sanctioned lenders of capital) were confined to the space between the Rio della Misericordia and the Rio del Ghetto canals. Hence the Ghetto could not be reduced to either time or space. Nor is it enough to say it was that area between two canals and two points in time; it was a particular space-time, something rather more than the sum of its parts.

Recognising the ghetto as a space-time grants a number of perspectives. Firstly, the production of this space-time occurs within a particular economic system where it is difficult to differentiate between social control and the management of the economy. Secondly, it *is* a production. Ghetto, from the Venetian 'gheto', meant foundry – where metal was cast – but only became the ghetto we know when that particular space-time was made by order of the Doge and the coerced response by Venetian Jews. Thirdly, the role of time in creating the Ghetto has disappeared. Its spatial phenomena stand in for the whole; ghetto now means an area. Finally, its produced origins tend also to be elided. Time is therefore removed twice: once when it comes to be recognised as a space only and a second time when it acquires an inevitability of meaning such that it appears self-evident, without a social history. With the air of a pre-existing space, independent of time or indeed any context, we could say the Ghetto is now naturalised and is more like a thing rather than a produced, space-time of economic and social control. It is a case in a more widespread pattern of using space and time to organise experience and to heighten the definition of identity. In this case of the Ghetto, this process of naturalisation has already happened. For school, it is an ongoing series of space-time recursions as I now show.

The constitution of particular space-times in school and identification with particular groups of people helps them to accrue an identifiability in some ways similar to those of the Venetian Ghetto. Once defined and repeatedly used, they begin to be recognised as school-ish units, and so go on to assist in defining school-ishness itself. For example, minutes of teaching and learning are organised into particular activities – settling, starters, mains and plenaries – which are collated and so formed into but also formed by larger units of time that are partly named into being as 'lessons'. Though the spatial element of lessons as space-times may be forgotten in a similar way to the Ghetto, it is important to remember the role of both in organising experience. This happens not as space + time ie as Massey would have it "thinking in terms of three dimensions plus one" but as a space-time which recognises fully "the inextricability of the four dimensions together" (1992, 83-4). Organisation in a school may appear as spatial + temporal management or even just space as 'Room 11'. But their conjunction and repeated social interaction produces emergent properties with particular corridors and particular rooms coming to signify (at certain times) what they are: Room 11 is not a homework club (that's at 3.15pm) nor a department meeting (4pm) but a Maths lesson (10.45am). The following image superimposes five space-times:

Fig [Chapter No.]-1 A series of timetables. From back to front, the expected trajectories or rates of progress for a student between the beginning of Year 7 and end of Year 11 (worked 'backwards' from nationally aggregated figures); a whole-school timetable, a department timetable, a teacher's timetable and finally one for a student.

As images, they are superimposed as it is not possible to represent graphically how they manage to constitute each other. Similarly, I have arranged them in an order that could be thought of as the bigger towards the back, smaller to the front i.e. the national picture, then school, then department, then teacher, then student. And yet the change between each one could be thought of not as geometrically or physically bigger or smaller but, more importantly, in terms of greater or lesser abstraction and so in terms of scales. While each student is *expected* to move along the trajectories indicated in the furthest to the back image, the story it tells is not a predictive one (though it is used as that). Instead, it is an account of nationally collated and aggregated past results now re-organised and transformed into a representation intended to feed forwards and shape patterns of individual student achievement over the course of secondary school into a normal path. Likewise, the two nearest images showing the student's and then the teacher's timetables respectively, still map out and so attempt to constitute particular space-times but they do so at the level of the persons themselves – this is closer to how life *might* be experienced and so a downscaled perspective.

One way to think of school is to refuse to think of it in one way. Instead school can be thought of as an amalgamation (rather than a straightforward series) of recursive space-times and our analysis

one of travelling through or among these scales. These space-times nest one in the other but rather than in a simple geometric “smaller to bigger” fashion, they semiotically link through each other as way to help the overall construction and extent of school meaning.

STOPPING THE MUSIC AND FREEZING A DEFINITION – SCHOOL AS THING

However, whilst school cannot be in one time nor space, its successful creation and maintenance depends in part on its recognition as an example of school culture. For this to happen, it should balance the demands of needing to be different from other schools and be recognisably school-ish. A distinct and discrete occupation of time and space facilitates a distinct and discrete identity. Indeed, this chapter argues that the ordering of space and time is not just a key characteristic of schools (a posteriori as it were) but a semiotic production, a way to produce a particular sense of what school is. School doesn’t just have recognisable space-times; certain space-times go into making school. The cultural, anthropological sense of school here is one that must always rely on other schools, experiences and histories of schooling in order to be seen or understood as significantly school-ish.

This is an awkward task for a new school in particular. On the one hand it needs to do new things, in new ways. On the other, it needs to be sufficiently identifiable as a school in order to function as a school. It needs to be both taken-for-granted and challenge preconceptions, to draw from aggregated images and histories of schools and schooling and to provide some new semiotic content that can mark it as unusual or even unique. Figure [Chapter No.]-2 perhaps illustrates some of this tension. It shows a banner publicising a school open day and was hanging in a train station, a public space with lots of footfall. It advertises the school and times parents and prospective students can visit in order to learn about it and consider choosing it over other schools in the area. They are a common sight in England in the period September – November when schools are competing for students:

Fig [Chapter No.]-2 a banner advertising a publically-funded secondary school’s Open Evening.

The banner shows the impossible aim of every school in England – to be “outstanding”. The word has lost much of its metaphorical sense and is now part of the technical vocabulary of Ofsted, the body in England responsible for inspecting schools. And yet it represents the tension perhaps felt by teachers and school leaders – to stand out but to remain identifiably familiar in some way since a school that can’t be recognised as a school by those who use it or who make it, wouldn’t be a school.

The control or organisation of this tension is vital. The sense of school we have is particular because making sense of something is also a promotion of one person’s or one group’s sense over others’ senses. The work of space and time in making *a* sense of what school is, is also therefore a hierarchical ordering of senses with only the most dominant being visible. Another way to say this is that the construction and communication of school as an idea depends on the ways that time and space are put to work in a school, who does that work and how well alternative ways of making them work are kept hidden. Not taking school for granted makes it essential to ask the question “Whose time and space-ordering is this?” as a way of understanding whose space-times were unrepresented and so kept quiet. Key to this is that the reduction of information involved in allowing one space-time to predominate assists the communication of school as a thing rather than a dynamic and evolving process. In this way it can be more easily seen as something discrete and unique.

To further sharpen the conceptual organisation of school as a thing its physical, container space can be emphasised and its interrelations with time downplayed. Just as the Ghetto is often represented reductively as a space in the north of Venice, or an unpleasant void in a city more generally, and stripped of social, economic and temporal significance in the process, so school is often condensed into a building. It is easier of course to communicate the complexity of school and schooling this way. But representing school as its buildings also helps with promoting school as unique. This is convenient as most schools have their name on their exterior walls and can therefore prompt the metonymising action of making what is within the walls stand in for what school is everywhere and everywhen else. Gilbert Ryle tells the following story to illustrate his definition of a “category mistake”, a similar point to the argument I am making here:

A foreigner visiting Oxford or Cambridge for the first time is shown a number of colleges, libraries, playing fields, museums, scientific departments and administrative offices. He then asks ‘But where is the University? I have seen where the members of the Colleges live, where the Registrar works, where the scientists experiment and the rest. But I have not yet seen the University in which reside and work the members of your University.’ It has then to be explained to him that the University is not another collateral institution, some ulterior counterpart to the colleges, laboratories and offices which he has seen. The University is just the way in which all that he has already seen is organized. ([1949] 2009, 6)

For Ryle, but not the foreigner, the equation of the university with its buildings is a mistake because it does not recognise the difference between the concepts ‘university’ and ‘buildings’; they are not alike and therefore incommensurable. However, there are advantages to be gained in promoting one conception over the other. To understand a school as “just the way in which all [...] is organized” is difficult since seeing organization or culture is difficult, seeing their material results in the form of bricks and mortar is much easier and so an easier idea to communicate. Hence what makes school special here is often reduced to its physical properties as a way of resolving the tension between being unique and being typical enough to be recognised as a school, a form of metonymy whose reduction makes its communication simpler. Analysis, though, “must not seek to reduce their complexity but to account for it” (Blommaert 2015, 17). And yet, before we continue the process of pulling school apart analytically, it pays to understand further just what can be gained by

representing school as a thing (and how that can be achieved) rather than a way of being organized or a process.

Seeing school as a thing encourages an impression of distinctiveness and solidity. Ensuring that as far as possible school cannot be confused with not-school is one way to foster this impression. For example, as well as fulfilling security concerns, school space also becomes more clearly not not-school if bounded by perimeter fences or walls. Its own demarcated area confers some of the meaning of school – it can be represented on a map or distinguished from the apartment block next door for example. People's repeated re-locations between school and not-school spaces further strengthen the distinctiveness of educational buildings and the concept of school itself. In short, school *is* in quite significant part because young people go. As a result, it is semiotically (as well as economically, politically and socially) productive to have people commute to a specialized building to do schooling rather than have the materials and discourses of schooling distributed to individual homes.

And having people commute constitutes another space-time, one that is shared. Communally-experienced school start and end times as well as dates assists people in recognising the school year as distinct from any other kind of year. Its specialness is confirmed (in England) by the five days in a school week, the 38 weeks of the academic year and the 13 years of compulsory education. The uniqueness of school time demarcated as different from non-school calendars' times facilitates the production of school as a discrete thing. We might read this production as one of time only – indeed, time stands out in the example of calendars. However, in each case we are dealing with particular constitutions of space and time together. School calendars don't impose time on independently acting phenomena in space; they make a new space – school – that can only be brought into realisation through the constitution of a particular space-time. As a result, it is necessary to remember the active roles of both space and time in bringing about meaning and identity even when the work of one is downplayed or elided completely.

If school is reproduced by the movement of people from many space-times to one, its definition can be increased still further if these space-time relocations are co-ordinated simultaneously amongst many similar or similarly categorised others. Just as the regulated space-times of Venetian Jews contributed to a more marked differentiation between the Ghetto and the rest of Venice, and reinforced the Jewish/Gentile distinction, so the delineations of school and the category "student" are made more profound. In short, the establishing of these space-times helps everyone concerned to identify and reinforce the conceptual legitimacy of a particular population. For Benedict Anderson, the rise of national media "made it possible for rapidly growing numbers of people to think about themselves, and to relate themselves to others, in profoundly new ways" (2006, 36) and so was key to the process of identifying with a nation. Similarly, we could say that children going to school at regular, particular times helps them to see and think of themselves (and for others to see and think of them) as school children. A secondary effect is to make school more obviously and legitimately school. Hence school children are not only a consequence of having a school and laws that mandate their attendance, they produce school on every school run. In this sense they are scaled (and scale themselves) into tokens of a particular school type, bolstering their identities and that of the institution they attend. It is not enough that there exist laws requiring young people's attendance at large buildings at particular times. The sentiment needs to be realised by the going of those young people in order to identify the school as a school and to varying levels of success also identify themselves as school students, confirmed by the sight of others doing the same thing.

The school and not-school distinction I make here may seem to rely on a crass binary opposition. But that is the point – resources are marshalled to solidify the impression of a thing in contradistinction

from the process it also is. Schools having their own space-times helps to reassert their naturalness. The development of other practices, materials and supplementary discourses to confirm the uniqueness of those space-times and their marked difference from other kinds of space-times strengthens the case that schools are thing-like. In Mary Douglas's discussion of institutions, part of an institution's work is to ensure its survival. That can be helped along by emphasising thing-like characteristics and playing down contingent, evolving processes. An institution's "stabilizing principle" is therefore "the naturalization of social classifications" (1987, 48). What is artificial in the sense that it is socially produced should appear 'above', removed from or not the result of immediate social action since this might suggest an unstable kind of contingency.

For example, laws enforcing school attendance serve to harden the definition of young people as school students. Any doubts as to what young people are can be sub-contracted to a greater authority, distant from immediate social action, in the form of a statute. At the same time, this helps to shore up the existence of school since truancy is a challenge to the existential integrity of school and, by association, other institutions of the nation-state. Around this model where, pendulum-like, each student's to-ing and fro-ing of the daily commute helps to deposit affirmation after affirmation that school is indeed a thing, ancillary practices and materials intimately bound to and co-defining of space-times accrete. For example where students wear uniforms to affirm a particular school identity, these should be worn only in those space-times that are marked as, and that mark out or reassert, school space-time. Wearing a school uniform on a Saturday or in early August might disturb. These practices and materials reinforce each other's effects. So a uniform unique to a school but recognisably school uniform-ish is the appropriate dress on school days (i.e. a calendar unique to schools), within or closely matched to school hours. The result is a series of closely controlled space-times, controlled by national legislation as well as locally produced norms but also by students' actions themselves enforcing the "rightness" of certain practices. All, together, help to marshal semiotic material and practices, coalescing into the formation and sustenance of a thing we can now call school and certainly not not-school, much less a process.

But the more that this intense semiotic work is buried, the more likely it is that school can appear as self-evident and to some extent, inevitable, ahistorical, a fact, its presence subsuming complexity. School is to be complied with (and more easily communicable) since its naturalness, solidity and sense that it is always, already there discourages discussion. The already made-ness of things deletes the maker. Whereas processes belie actors, contingency, history and so a future and the possibility of change, things draw attention away from their construction and towards stability in the present and so a continuing likelihood of stasis. From a researcher's perspective, these can count as epistemological manoeuvres, one of Howard Becker's "tricks of the trade":

Focusing on activities rather than people nudges you into an interest in change rather than stability, in ideas of process rather than structure. (1998, 46)

This is not to say that one is better than another but rather to understand the different kinds of knowledge that the two perspectives afford in order to analytically move between scales. Both activities and people, processes and things, down and up scales are appropriate as Doreen Massey reminds us:

I'm now perhaps more wary of the "all is process" view of the world, in so far as it's been translated from a reconceptualization to almost a denial of the existence of "things" (2013, 255).

Both are necessary. “Down” and “up” scales as used in this volume are not equivalent to seeing schools as processes and things. It is not as simple as that. Instead scales and the movement down away from abstraction and back up to more aggregated and condensed forms of representation is a way of helping us to hold a range of epistemological positions, to aid the seeing of process *and* thing and to juxtapose those knowledges in useful ways – analytic friction. School as a thing is a condensation of space-times, presenting itself as one. School as a process is a messier affair, downscaled and closer to lived experience. Both are useful forms of understanding if we are to go some way towards seeing the rich, complex world of school and I return to this in the conclusion. Now though I wish to show how scales are implicated

YOU CAN'T KEEP US APART – CONSTELLATIONS OF PERMEABLE SPACE-TIMES

The logics developed in particular space-times are not islands operating discretely from others. In English schools, the “Bullock Report” of 1975 recognised this and made a significant impact not just on the teaching of English (its designated topic) but on the approach to education more generally. The report’s full title, *A Language for Life* attempted to capture the Committee’s brief “to inquire into the teaching in the schools of reading and the other uses of English” (1975, v). The recommendations were in some ways remarkably progressive and the document continues to influence English teaching in English schools. In particular, Chapter 20 concerning the language resources of “Children from families of overseas origin” changed the way multilingual students and their languages itself could be thought of, discussed and taught. The document opened up a new space for alternative forms of English (and other languages) and called for these resources to be understood and valued *as* resources rather than signs of deficiency.

However, an effect of valuing other Englishes was to challenge the ontology of one, “correct” English. In turn, this helped to challenge the view that any form English could be cognitively or linguistically superior to another. For example, in discussing the likely difficulties faced by a young learner of English, the document referred to their “mistakes, or deviations from Standard English” (ibid, 290). A subtle pointedness here challenges the exalted form of English. For the first time in an official document, different uses may not be wrong, perhaps, but a “deviation” away from the mean that the “Standard” implies. Whilst this remains a hierarchical ordering of linguistic ability, the fault is at least ascribed to an atypicality in usage rather than a wrong-ness per se. It is also then a move towards recognising language as a socially produced system without rules handed down from on high. Difference can be a signal not now of error but of less frequent usage in specific communities. Other forms of English have some value at least – not that of the normalised Standard English – but value nonetheless, a form of covert prestige. They are downscaled examples of language in use, more concerned with a communication bound by mutual intelligibility among members of communities than the officially recognised aggregation of rules and therefore the accompanying correctness that enforces compliance.

This subtle change in how language use should be evaluated points at a redefinition of school. Now linked semiotically with home, rather than a discrete space-time, it is a recognition of the heterogeneity of linguistic resources and the permeability of cultures as founding principles rather than existential threats:

No child should be expected to cast off the language and culture of the home as he crosses the school threshold, nor to live and act as though school and home represent two totally separate and different cultures which have to be kept firmly apart. (ibid, 286)

Yet in stating that school and home are not separate, the report acknowledges the education system's management of them as if they were. Education in this sense is too often one of granting access to a special kind of knowledge and so fails to see that a view of learning that encompasses school and home may have use and value. The language development which happens at home is still language development, even if not of the "Standard" kind. However, recognising the educational value in reconciling school and home as mutually constitutive cultures or, better, space-times with shared semiotic content, runs counter to the work of seeing school as a thing. We have said that the complexity of schools is easier to limit if they can be frozen into discrete entities by limiting the extent to which they are perceived as permeable. The job of school managers is hard – they are subject to two opposing pressures: they should unique-ify their school to promote its identity but for educational purposes need also to encourage a fluidity between multiple space-times.

These contradictions play out at all levels of school life. Cultures cannot respect the boundaries sometimes expected of or imposed on them. Blommaert describes context as "polycentric", "where communicative behaviour is simultaneously pushed and pulled in various directions" (2010, 42) meaning that space-times are linked since:

people's resources are mobile they orient towards multiple centres of normativity and appropriateness, or more simplistically we could say they orient towards multiple cultures.
(Singh this volume, 8)

In short, the school threshold is an artificial distinction, people's resources necessarily move through these kind of barriers. From this, we can understand that the movement of semiotic resources between sites that always accompanies not just people's movements but the circulation of representations too, undermines the concept of cultures as island-like. There are no doubt many reasons to behave as if cultures were isolated not least that this practice serves as a heuristic to get us through the complexity of daily life; semiotic travel may be an interesting analysis for a social scientist but coping with life requires some level of abstraction (Bowker and Star, 2000). The job of the social scientist in this sense is therefore to examine the implications involved in *particular* abstractions and the consequences that derive from deciding to stop the music at those moments and not others.

PLANNING A LESSON OR RECREATING A (PARTICULAR) WORLD IN A CLASSROOM

Alternative scales and instantiations of space-times are always possible – access may be discouraged but "multiple centres of normativity" remain. The following example shows that process in schools through a lesson plan I created as a trainee teacher. I use it as an example because the lesson wasn't successful and the reasons for that go some way in making it clear just how important space-times are to the making of meaning through different cultures.

In the lesson plan below I attempted to constitute a particular space-time through exploring "Symbolism (what Walls and Fences can mean)" – the topic for the lesson – by way of the novel we were reading together, *The Boy in the Striped Pyjamas* (Boyne, 2008).

Fig [Chapter No.]-3 shows an extract from the lesson plan:

LESSON CONTENT	
Teacher activity and teaching points	Pupil activities and tasks
<p>1 Teacher pairs up students to explore symbolism in the poem "Mending Wall" by Robert Frost. Only the last 14 lines used to keep it simple. (5 mins) (Depending on group, Tracy Chapman's "Across the Lines" could also be used to illustrate the idea of walls and fences.</p> <p>Teacher asks for feedback (3 mins)</p> <p>Departing from responses, teacher uses questions to encourage short discussion on where/why/how symbolic walls exist. (5 mins)</p> <p>T. gives out photocopies of front and back cover of the Random House version of "Boy..." (the new class novel) to Sts in pairs. T. asks sts to brainstorm possible type of walls the story involves and what the story might be about (3 mins)</p> <p>T taking in possible ideas and writing down on IWB. T conducts class vote to see most what class thinks most likely plot in order to get sts excited about what comes next – the first meeting with the class novel. (5 mins)</p>	<p>2 In pairs, students work together as detectives trying to answer the following questions based on their photocopies of the last 14 lines of "Mending Wall":</p> <ol style="list-style-type: none"> 1) How many kinds of fences or wall are there in the poem? 2) Can you identify these walls or fences? 3) In pairs, can you think of other non-stone walls that may exist, either in [school location] or in the world at large? <p>Students give answers.</p> <p>Controlled debate amongst class.</p> <p>Sts brainstorming in pairs</p> <p>Sts getting excited to "predict" what the novel is going to be about based on the cover.</p>

Fig [Chapter No.]-3 a lesson plan used to teach a lesson on symbolism in the novel *The Boy in the Striped Pyjamas*.

In [Chapter No.]-3 I have identified four points for discussion that centre around my attempt to make the space-time of the lesson a particular one, on my terms. They relate to what Nespor explains is how some scales come to be the ones that count:

Dominant temporal-geographic scales are outcomes of struggles to define certain meanings and spacetime relations as the meanings and connections that count in these networks of power, and to make certain meanings, connections, and processes invisible and unspeakable. (2004, 321)

My work in the lesson, as teacher, can therefore be seen as managing (or attempting to manage since I was unsuccessful) the definition of "certain meanings and spacetime relations". As such, Point 1 in Fig [Chapter No.]-3 is an attempt to demonstrate a direct linkage between the "teacher activity" (left hand column) and the "pupil activities" (right hand column); what students do is a function of, and only of, what the teacher sets up. And yet lessons are examples of *open systems*, "characterized by both a plurality and a multiplicity of causes" (Bhaskar 1998, 95) where prediction is not possible (ibid, 110). The openness of this system is, in part, its constitution through the range of other space-times illustrated here. I attempt to bring some of these into the lesson (e.g. asking the students to work in pairs as detectives in Point 2 or think of where/when other symbolic walls may exist as in Point 3, above). Of course, each invocation of additional space-times increases the lesson's

complexity. The teacher therefore needs to balance the value of importing other contexts (which provide additional potential learning scenarios by making links to other material) against the possibility of yet more complexity. As a trainee teacher, the space-time I was trying to create here proved too complex. The Robert Frost poem and lyrics from a Tracy Chapman song provided some semiotic content that was useful for my understanding of the symbolism of walls in *The Boy in the Striped Pyjamas*. For the students, however, it was too alien, too complex or just too boring to add to their understandings of the novel and the lesson was not a success.

A final note (Point 4) illustrates again how scalings of space-times are to some extent recursive. Though I did not think about it in these terms when planning, this lesson involves further lessons about social organisation. In the feedback (a form of assessment) I request, I am asking for ideas from individual students – perhaps to spot who has and who hasn't begun to “get” the concept of symbolism. A downscaled space-time that can “see” the individual at this level of resolution is employed. Later the students “work” in pairs before a class vote. The scales move ‘up’ and new space-times are produced as a result. Did I choose the class vote as a social or informational manoeuvre? My rationale was not clear but it is possible that in terms of its effects, students are perhaps also learning that a normalising democracy is appropriate to this kind of social group and, in turn, that there are outliers whose ideas might not “fit”.

Any lesson is always much bigger than itself and much smaller than itself. It is an attempt to create a world of communication, a particular space-time that may be more or less open to other worlds. But it can never pretend to be only about itself. The other space-times it attempts to invoke should be commensurable to give a sense of coherence. Doreen Massey points to the need for space-times to be mutually intelligible if they are to succeed, to be linked in an ensemble or constellation of related space-times:

It is a sense of place, an understanding of ‘its character’, which can only be constructed by linking that place to places beyond. A progressive sense of place [...]. (1993, 69)

When space-times are not mutually intelligible (as with my unsuccessful use of the Robert Frost poem or Tracey Chapman song), they perhaps increase complexity unnecessarily without providing any immediately valuable semiotic gain. The chain of meaning-making, of connections, I was trying to make by importing these additional resources and attempting to reproduce a particular world in this classroom was not one that could students could follow. Whilst I thought they might provide a closer to real life, downscaled, journey of making-meaning, of semiosis, they instead were too personal to me and too abstract and too disconnected for students as ways in to generating generalised, upscaled, symbolic notions of walls that I'd intended the lesson to be. Hence it is not enough for resources to be closer to real life only. If communication is a journey then in this sense I'd arranged the stepping stones either too far apart or of incompatible types and the passage was made impassable.

CONCLUSION

I have shown how thinking of schools as things and as processes may be a useful way of exploring what schools are. These two conceptions serve different purposes at different times and are also experienced differently by different people. For example, treating school as a thing rather than a process may facilitate how we respond or get a conceptual grip on it. Downplaying school's dynamic, restless nature is a heuristic then, a short-cut through complexity. On the other hand, teasing out the composite, varied aspects of schools-as-processes helps us to see the workings of the machine –

the culture in the making. Both are important perspectives and ways of organising semiotic material, of making meaning. Using both as complementary ways to see schools reminds us also that schools are complex, that they exist a priori to our own acting in them but are also reformed and influenced by our actions.

Another way of respecting the complexity with which schools function is to move away from seeing them as buildings with a particular geographic location. Schools coordinate space and time, together, and also come to be recognised as the results of particular temporal and spatial coordinations. As products and producers of space-times, schools and the students who attend them, help to clarify their existence as school and as students. This is further aided by the way in which these space-times are sharply demarcated from alternative ways of organising other space-times. Hence schools have (and are) spatially triggering calendars, uniforms and ways of being that cannot be reduced to space only. But neither can they be reduced to time only - school is an always-in-the-making process, drawing semiotic resources in from other space-times (and acting as a source for others). As such, school has a more complex relationship to either time and space than a simple, geometric approach would have it. Further, school is recursive in the way that as a space-time, it features nested structurings of time and space – 'down' to the minute and 'up' to the pattern and organisation of space-time across life, the 13 years they produce students as students, and, increasingly, bound to others across the globe in new ways of seeing and positioning young people competitively. Ignoring this complexity won't make it go away.

And what goes for schools, to some extent goes also for social research. Recognising complexity and then portraying that complexity without aggregating away too much of the detail is essential. Downscaling and moving between scales acknowledges and supports this process – the competing and conflicting demands that come from living out and making a culture and needing to represent it, from richness to relative simplicity. Downscaling and moving between scales is an epistemological journeying that produces an analytic friction perhaps appropriate to studying the kind of complex meeting of the social and cultural worlds that schools exemplify. Its explicit attention to complexity is not a guarantee to capture it, but it is better than denial or the turning of a blind eye. It draws attention to aggregations, to upscaling, but also to how those aggregations are constructed. It shows not just culture's but the researcher's working in this sense.

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