

CHAPTER 4

TREACHEROUS DEPARTURES

Bernstein and Dowling Framed

A TRIBUTE TO A PROPHET, TEACHER AND FRIEND¹

In the field of social thought and research Bernstein was a prophet. His activities organised the field into sets of friends and enemies, colleagues, critics and acolytes that may well have been more or less equinumerous though not necessarily disjoint; that is what prophets do. There will, quite rightly, be no shortage of tributes to Bernstein the prophet from leading figures in the field.

A few of us were able to work closely and individually with him as his students. Oddly enough, whilst we may well be divided in our responses to his work proportionately to the divisions of the field as a whole, we are, I am sure, united in our recognition of the astonishing good fortune that brought us under his supervision.

As was the case with a number of his doctoral students, I was summoned by Professor Bernstein to discuss the possibility of research registration on the basis of something that he had identified in my masters dissertation (although reviewing the work now, I have to confess to being somewhat unclear as to what this ‘something’ might have been). Embarking on work on my thesis I found myself to be cast into a situation in which every aspect of my sociological knowledge—however well established its pedigree—every epistemological presupposition, every tentative offer of empirical justification came under such vigorous and detailed interrogation that I felt as if I was experiencing the intellectual equivalent of the osteopath’s table: I was being taken apart, ossicle by ossicle. Furthermore, no region of the sociocultural terrain (and what else is there) was immune from the Bernsteinian analytic gaze. Whatever took our attention in our weekly meetings would be minutely disassembled, reconfigured and ultimately recontextualised in a manner that inaugurated (although Basil would say revealed) the sententious in the mundane. What specialised sociology was not its object, but its privileging of relations and, in this, Basil was a true student of Marx.

Early on my writing would always begin with an extended contextualising trip around what I perceived to be the relevant theoretical background. ‘Where does it begin?’ Basil would say as he flicked impatiently through ten pages that had taken several times as many hours to produce. ‘At last’, on page 11, ‘some data, let’s see what sense (if any) you’ve managed to make of it’. The ensuing display of

¹ Originally published as Dowling (2001a).

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theoretical coherence and analytic virtuosity was, initially, dazzling. But my career—managed and encouraged by the master—from the peripheral position of observer to the central one of active, even principal participant was (with deference to Jean Lave and Etienne Wenger) the quintessence of academic apprenticeship. Basil was not only a prophet, he was a teacher.

And, of course, there was more. Producing a doctoral thesis can be (almost inevitably is) a traumatic experience under any conditions. However stern his intellectual criticism, in the personal—I might say pastoral—context, Basil was thoughtful, considerate, concerned. When Basil asked ‘How are you today?’ I knew that he was genuinely interested in my answer—sympathetic and supportive in the troughs, celebratory at the peaks. The lunches that generally succeeded (although never truncated) the business part of our meetings continued and extended the wide ranging social and cultural analyses that had characterised our earliest sessions before my work had developed its peculiar focus. I shall treasure these as amongst the most entertaining and warm social occasions that I have experienced in any context.

Even in its early stage of development—as instanced in my doctoral thesis—and most definitely now, my own work stands epistemologically and methodologically in a dialogic, which is of course to say a critical relationship with Basil’s and I reject the epithet ‘Bernsteinian’ as a descriptor of my position. Nevertheless, it is clear to me that his intellectual products and productivity have informed and shaped it in a manner the diversity and extent of which becomes increasingly apparent even at my present distance from the original thesis. Once, on re-reading one of his papers that I had previously referenced in 1986 I noticed a marked resonance with a position that I had been establishing some five years later. Intellectual arrogance directed my knee jerk response and I remember thinking at first and with smug satisfaction that I had influenced him—until I looked at the date of publication.

First and foremost, however, what I hope Basil has given me (and what I know he has given to many others) is precisely the facility to develop coherence and systematicity in my own theoretical and methodological constructions. That my own route contrasts with his has, delightfully, enabled me to continue my dialogic apprenticeship to him well beyond the supervision of my thesis and even beyond his death. I shall end this tribute by quoting from my acknowledgement to him in the thesis itself:

The supervisor of this research was Professor Basil Bernstein. Basil brought to the supervision the stunning power of his own thought and work and an often devastating, but always constructive criticism of mine. This was combined with a level of commitment, in terms of time and care, that I cannot imagine being surpassed. The impact of this supervision upon the intellectual productivity, conceptual clarity and, indeed, the readability of this thesis is immeasurable, but immense.

Goodbye, Basil, and thank you.

THE FRAMING OF BASIL BERNSTEIN

In the autumn of 1999 I was invited to give a talk on the work of Basil Bernstein to the Education Department at King's College, London. I agreed on the condition that a critical rather than expository or celebratory approach would be acceptable—it was. Now, it had been in the nature of my many hours of conversation with Basil that we would rarely discuss his own work other than in pedagogic mode, he the teacher and I the student (oddly and despite my protestations of (genuinely felt) ignorance, he would often spontaneously adopt the opposite role whenever mention was made of certain other theorists, Michel Foucault, for example). Basil would occasionally inform me of the limitations of my language of description: it was unable to handle interaction; I was dealing only with textual rather than empirical subjects. These deficiencies, it seemed (though this was not generally made explicit), would be overcome were I to bring my language into alignment with his, but it was, of course, my thesis and, in any event, the deficiencies would not prove fatal, just limiting. I believed him to be wrong, of course. I considered that the 'deficiencies' were apparent only from his general methodological position, which was inconsistent with mine. I suspected that our ways of experiencing the world were, in some respects, opposite and that we compensated for our respective one-dimensionalities in the construction of our theory. Basil experienced the world existentially, I thought, I always feel outside of it. Basil theorised an objectivity; I projected my theoretical avatar into my discursive dolls' house. I would need to switch avatars in order to 'experience' interaction and these avatars were, of course, all textual—*il n'y eut pas de hors-texte*. On the other hand, as is common in realist methodologies, Basil's subjects were *dei ex machinis*. So, what with one thing and another, whilst I felt uncomfortable with Basil's theoretical framework, I had quite deliberately avoided formulating an explicit critique. I decided to use the King's presentation as an opportunity to do so.

As is my usual practice with public presentations, I produced my critique as a paper from which I then made lecture notes (with teaching I often work the other way around—I find both to be productive). I delivered the presentation, shortly before the end of the autumn term, and then wondered what, if anything, to do with the paper. It certainly hadn't been written with a specific publication in mind, but I asked one or two colleagues who thought that the *British Journal of Sociology of Education* might be interested, as much of the work that I had cited had, at one time or another, appeared in this journal. I posted the paper on my website (where it remains) and also sent it to a former research student of mine who had passed her viva only six months earlier. As I recall, my former student made few or no comments on the paper, but did suggest that I should send it to Basil before attempting to publish it. I remembered that, in a very early conversation with Basil, he had bemoaned what he believed to be the current practice of publishing critiques without first presenting them to the author criticised for their observations. I agreed that, if this represented the common practice, then this was indeed a regrettable

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state of affairs. My former student had a point. But there was a problem, two problems, in fact.

A year or two before the King's presentation Basil had sent me a rather aggressive letter asking me to explain an observation that I had made in the hearing of a mutual colleague—he apparently felt insulted by the comment. I remember thinking that the colleague must have inadvertently misrepresented what I had said by removing it from the context in which it had actually stood as high praise of my former supervisor. I replied to Basil informing him of this and suggesting that perhaps we might meet for lunch but that I was in no mood for a telling-off. Basil never acknowledged my reply and we had had no communication since (apart from a Christmas card that I sent him that he apparently resented because it contained no message apart from a greeting and a signature). The second problem was Basil's health, which had been deteriorating for some time and he was now seriously unwell. I wasn't sure whether a communication from me—especially in the form of a critique—would be welcome or helpful. Nevertheless, I held my former students' case to be sound, at least on ethical grounds, and I sent Basil the paper together with a short note regretting his poor state of health and explaining that I would be very grateful to receive his comments and that I would be submitting the paper—with amendments, if necessary—to the *British Journal of Sociology of Education* in due course. I received a one line email reply: 'Thank you for your paper.' This was in January 2000 and was the last communication that I ever received from my mentor; Basil Bernstein died on September 24th that year.

I have absolutely no evidence that Basil had any involvement with the refereeing of my paper (unless one counts his assertion—to the same mutual colleague who had unwittingly caused our estrangement—that he had had nothing to do with its refereeing, as suggestive that he had in fact been involved). Whatever, the paper was roundly rejected as uninteresting and misguided. It was a simple matter to infer the identity of the referees (and why should they remain anonymous anyway), each individual being, in different ways, connected with Basil (one, another former student, the other a hagiographer). One of them suggested that the paper did not advance my own work beyond that already published. A stock expression used for rejections. It is clearly a matter of opinion or debate as to whether or not the paper constituted an advance in my previously published work, but I strongly doubt that this particular individual had read very much of it. The other claimed that I would not have made such criticisms of Bernstein's work had I been familiar with work in the field of the sociology of science; he cited Fleck as an example—presumably Ludwig Fleck whose epistemology of science in the 1920s and 1930s (1981) was re-discovered by Thomas Kuhn (1970). Kuhn's and other work on the sociology of scientific knowledge is clearly of great interest, but neither this work nor that of Fleck could in any sense that I could see gainsay my criticism of the lack of any empirical basis for Bernstein's characterisation of scientific knowledge, nor do either Fleck or Kuhn introduce the kind of empirical work that would be needed in order to establish the claims that Basil makes (and Basil didn't cite Fleck anyway). So the

paper never made it into *BJSE*, but it is still on my website in its original location² and on my updated site.³ But this is not quite the end of the story.

In 2004 a colleague of mine attended the Third International Basil Bernstein Symposium, which was held at Clare College, Cambridge. At the conference my colleague discovered that Basil had in fact written a reply to my paper. However, rather than send it to me as, in a sense, I had requested, he entrusted it to a number of individuals with instructions that it be published in the event of the publication of my paper, but not otherwise. My colleague was unable to determine how many individuals had received this bequest, he did, though, identify two of them. One of them is apparently the very former student of mine who had advised me to send the paper to Basil in the first place. This former student, now a full professor at a South African University has, interestingly, never informed me of the existence of the reply (nor has anyone else before my colleague discovered it)—perhaps she also advised Basil to send the paper to me. I have not, at the time of writing, seen the reply nor had any indication of its content. Indeed, the only hint that I have is an inference from two passages in what appears to be a hastily written introduction to the second edition of *Pedagogy, Symbolic Control and Identity* (Bernstein, 2000). I quote from this introduction in the chapter below and shall not do so here, in advance. Suffice it to say that the passage that I shall cite might be taken as a hint to the effect that Basil had accepted the validity of at least part of my critique. Then again, Basil was never one to eschew irony and, after all, this song might not be about me at all, I'm not so vain as to insist that it must.

AN EPILOGUE

This chapter was born 1999 (following a period of gestation of some fifteen years or so), when the first version was completed. The first section above was written and published in 2001 and the first draft of the second section and main body of the chapter in its present form were written and published on my website in late 2005. In June 2006 the former student, mentioned above, and a colleague of hers (also a friend not seen for a long time) paid a visit—en route back to South Africa from the US. Basil's reply was mentioned. My former student stated her belief that Basil had not accepted my critique, but felt that I should see his response to my original paper—she said that she would consult with others. She did so and mailed the paper to me in mid July 2006, shortly after the Fourth Basil Bernstein Symposium, held at Rutgers-Newark. Another of my students, who had attended the conference, told me that there had been an informal enquiry to determine who had been a recipient of Basil's original email, distributing the response.

So I now have the response and have read it. What do I do about it? In a sense, the ethical problem that I might have in mounting a response to the response is rendered irrelevant because most of Basil's comments concerned the first part of

² <http://www.ioe.ac.uk/ccs/dowling/kings1999/index.html>

³ <http://homepage.mac.com/paulcdowling/ioe/publications/kings1999/index.html>

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the original paper, that I cut from both the 2005 and final versions, and the comments about the part that remains, in modified form, do not persuade me to alter it. Indeed, it seems to me that they serve to underscore the contrast between our general approaches. With a single exception, therefore, I have decided to edit the final version of the main body of the paper for this book as if I had not read the response to the original version.

The single exception is in respect of the origins of the category, ‘framing’. On the basis of my conversations with Basil, I had inferred that these rested with Goffman’s use of the term. Basil’s framing is clearly not the same as Goffman’s, but they do resonate strongly with each other. In his response to my original paper, Basil points out that Goffman’s *Frame Analysis* (1974) was published after his own first use of the term. This may or may not be telling. However, it was not a major point in my argument and I am content to let it lie; I have adjusted the chapter accordingly.

I have included this and the above two sections in this chapter as the place of departure for my journey through the inspirational work of Basil Bernstein to my own sociology as method. Their principal interest may appropriately lie less in their exposition of my own development than in what they may say about the relationship between one of the key figures in educational studies in the twentieth century and one of his students. Nevertheless, these sections serve my own purpose as well. In Chapter 3 I recruited Jerome McGann’s term ‘deformance’ to catch at a fundamental aspect of my method: the point is not to dig into a text in order to uncover the true meaning that supposedly lies hidden within it (forensics), but to engage with it in order to present the text in a new light, to make new meaning. The same may be said of the way in which we approach our theoretical antecedents—our teachers. In this chapter I shall use the term ‘heresy’ to describe my engagement with Bernstein’s work and, in Chapter 8, I will use the terms ‘misreading’ and ‘misprision’, making reference to Harold Bloom. There is a development in theoretical precision in the move from deformance through heresy to misreading/misprision. The first term seems to signal any kind of distortion—McGann, after all, illustrates his own deforming action by reference to random mutations of a digitised painting via the use of Photoshop filters. Heresy suggests a fundamental assault. Misprision refers more productively, I suppose, to the birthing of a new work and the necessary pain that this brings to its parent (and, indeed, to its author). The harsher ‘heresy’ will do for now. Basil himself spoke from the other side of heresy, using ‘misrecognition’ to frame his critics.

THE FRAMING OF PAUL DOWLING

Misrecognition

Misrecognition takes a few lines but its exposure takes many. In this detailed case study of misrecognition I shall, perforce, have to explicate what Harker and May (1993) have silenced. (Bernstein, 1996; p. 182)

Bernstein's use of the term 'misrecognition'—also used in the title of his chapter—is interesting. It presumably entails a challenge to Harker's and May's principles of recognition. Yet principles of recognition must always be tacit because to render them explicit would be to produce principles of realisation, in other words, to re-elaborate one's own discourse. In Bernstein's case, this would take very many lines indeed, but it cannot expose that which is tacit. Harker and May (1993) have certainly acted selectively and transformatively on Bernstein's writing, but this must be true of any commentary, including that of Bernstein himself in respect of his own work. The question is, simply, does he or does he not approve of the result. In the case of Harker's and May's critique, the answer would appear to be that he does not. Indeed, his disapproval was emphatically realised in the delight with which he received the desktop shredder containing the partially shredded copy of Harker's and May's article that my colleague, Andrew Brown and I gave him on the event of his seventieth birthday. Each guest at his birthday party was individually treated to the witnessing of a few more millimetres of gleeful destruction. We were members of an alliance that deferred to Basil on the admission of new members. Nevertheless, we would still need to distinguish between, say, ironic and literal recognition so, to put the situation another way:

The unconscious is that part of the concrete discourse, in so far as it is transindividual, that is not at the disposal of the subject in re-establishing the continuity of his conscious discourse. (Lacan, 1977; p. 49)

Thus we might describe as the unconscious the regularity of the practice that is established in and that establishes the alliance, which is to say, the tacit principles of recognition of its own instances. Naturally, the alliance may be described at any level of analysis, so that, in particular, we may wish to replace Lacan's 'transindividual' with 'transsubjective' and interpret 'subjective' in the linguistic sense that allows us to regard human subjectivity as a multiplicity of identity avatars: the unconscious establishes and is established by the unity of the human subject as well as that of inter-individual alliances.

The accusation of misrecognition is a strategy that establishes not an alliance, but an opposition. In this chapter I am also seeking to establish an opposition in the creation of the basis for an alternative alliance. In a cryptically reflexive moment, Bernstein chooses different terms for this kind of move:

Independent of failures in their empirical power, all theories reach an inbuilt terminal stage when their conceptual power ceases to develop. This is when

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the generating tension of their language fails to develop more powerful sentences. I am inclined to believe this is when the possibilities of the initiating metaphor is [sic] exhausted. And some metaphors get exhausted sooner than others. At this stage of inner termination, defensive strategies are often employed: disguised repetition, concern with technicalities becomes a displacement strategy, omnipotence to preserve a position acts as a denial strategy, restricting the intellectual ‘gene’ pool by controlling disciples. This is only a temporary strategy as it leads eventually to the enlargement of the ‘gene’ pool through dissent (or treason?) (Bernstein, 2000; p. xiii)

This is the introduction that I referred to earlier and is cryptic to the extent that he might have been anticipating the eventual publication of some of the argument in this essay, which he had already seen in the paper that I sent him (Dowling, 1999a). In this earlier work I described as ‘disciples’ some of the recruiters of Bernstein’s theory (and, as a result, upset at least one of them—obviously not a politically sound move from a position of relative weakness) and I used the term ‘heresy’ for my own engagement with him—a strategy that Donna Haraway (1991) reminds us is to be distinguished from apostasy (though I don’t suppose that that was much consolation). I am, however, not wholly opposed to accepting the label ‘treason,’ but I’ll replace it with treachery; I wouldn’t want to nationalise him.

The particular form that my treachery will take will be to take three points of departure from his theory in order to work towards my own. In each case I shall arrive at, or at least pass through, my own (treacherous) interpretation of the category, recontextualisation; it was my early encounter with this term in reading Bernstein that inspired a great deal of what was to come.

Collapsing the walls

There is no point in beating about the bush, so I shall begin with the two fundamental Bernsteinian concepts of classification and framing: I make extensive use of a concept of classification, but rarely refer to framing.⁴ Why is this?

The origins of these concepts contribute to the specialising of Bernstein’s own heresy. Classification has its roots in the work of Émile Durkheim and both this category and framing seem to have emerged in the course of—which is not to say because of—a dialogue with Mary Douglas. I shall refer again to this dialogue in Chapter 8. In Bernstein’s work, the two categories carry, respectively, the principles of power and control, which is to say:

... briefly, control establishes legitimate communications, and power establishes legitimate relations between categories. Thus, power constructs relations *between*, and control relations *within* given forms of interaction. (Bernstein, 1996; p. 19)

⁴ In fact, I now use the term *institutionalisation*, though I originally retained ‘classification’.

Within Bernstein's work, the concepts are associated with opposing sets of terms as illustrated in Figure 4.1.

Classification	Framing
power	control
space	time
between	within
what	how
voice	message
recognition rules	realisation rules

Figure 4.1. Classification and Framing

For example:

Whereas the recognition rule arises out of distinguishing *between* contexts, the realization rule arises out of the specific requirements *within* a context. We know that the principle of the classification governs relations between contexts, and that the principle of the framing regulates the transmission of appropriate practice *within* a context. (Ibid.; p. 107)

Framing is defined as follows:

Framing is about *who* controls *what*. What follows can be described as the *internal logic* of the pedagogic practice. Framing refers to the nature of the control over:

- the selection of the communication;
- its sequencing (what comes first, what comes second);
- its pacing (the rate of expected acquisition);
- the criteria; and
- the control over the social base which makes this transmission possible.

Where framing is strong, the transmitter has explicit control over selection, sequence, pacing, criteria and the social base. Where framing is weak, the acquirer has more *apparent* control (I want to stress apparent) over the communication and its social base. Note that it is possible for framing values—be they strong or weak—to vary with respect to the elements of the practice, so that, for example, you could have weak framing over pacing but strong framing over other aspects of the discourse. (Ibid.; p. 27)

Consider an example, which is based on Mark Warschauer's (1999) observation of an English non-fiction writing course at an American university. Warschauer's interest was in the ways in which the teacher's and students' practices changed as

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the medium changed between face-to-face (f2f) and computer mediated communication (CMC). In particular, he found that the teacher tended to operate in a didactic lecturing mode in the f2f situation. CMC was described as more 'democratic', which is to say, the teacher intervened far less and with more open questions than in the f2f mode and it was the students rather than the teacher who apparently directed the discussions. Now in terms of the above definition, it would seem that the change in practice between the two modes constitutes a weakening of frame. Classification, however, has remained constant insofar as there has been no change in respect of the degree to which this class is to be distinguished from other classes. However, consider this statement by Bernstein:

In the case of invisible pedagogic practice it is as if the pupil is the author of the practice and even the authority, whereas in the case of visible practices it clearly is the teacher who is author and authority. Further, classification would be strong in the case of visible forms but weak in the case of invisible forms. (Bernstein, 1996; p. 12)

Now the CMC mode looks very much like an invisible pedagogy, which here is described as exhibiting weak *classification* with no reference being made to framing. Elsewhere in Bernstein's book there is a virtual exclusion of the category 'framing' in favour of classification; I noted only a single instance of it in chapter 3, for example.

The source of the confusion, for me, resides in the fact that, as Bernstein himself notes (p. 19), power and control and so classification and framing operate at different levels of analysis. A crucial feature of power relations, for Bernstein, is the construction of boundaries or insulation, thus:

The distinction I will make here is crucial and fundamental to the whole analysis. In this formulation, power and control are analytically distinguished and operate at different levels of analysis. Empirically, we shall find that they are embedded in each other. Power relations, in this perspective, create boundaries, legitimize boundaries, reproduce boundaries, between different categories of groups, gender, class, race, different categories of discourse, different categories of agents. Thus, power always operates to produce dislocations, to produce punctuations in social space.

[...]

But I want to argue that the crucial space which creates the specializations of the category—in this case the discourse—is not internal to that discourse but is the space between that discourse and another. In other words, A can only be A if it can effectively insulate itself from B. In this sense, there is no A if there is no relationship between A and something else. The meaning of A is only understandable in relation to other categories in the set; in fact, to all the categories in the set. In other words, it is the insulation between the categories of discourse which maintains the principles of their social division of labour. In other words, it is silence which carries the message of power; it is the full stop between one category of discourse and another; it is the

dislocation in the potential flow of discourse which is crucial to the specialization of any category. (Ibid.; pp. 19-20)

In the formulation of this argument in Dowling (1999a) I made reference to John F. Kennedy's speech at the Brandenburg Gate. This was the speech in which the President asserted that the proudest thing a man could say was 'I am a doughnut' (*Ich bin ein Berliner*'—he should, of course, have said, simply, *Ich bin Berliner*'). This was by way of introducing the Berlin Wall as a plausible example of a boundary and I had, indeed, taken a piece of the wall to the presentation as a visual aid ;-). Now the wall was certainly implicated in the establishing of distinct political regimes—implicated, but not imbricated. The substance of the wall is suitable for its purpose solely by virtue of its sharing of a predicate with that which it keeps apart. Specifically, the wall and the people on either side of it are mutually impervious. That is to say, in the constitution of a 'division of labour'—the differentiating of political regimes—the function of the wall is to assert a sameness, not a difference. The same, incidentally, is true in respect of insulation. The plastic material surrounding domestic electrical cable shares the predicate of 'electrical conductance' with bodies that it separates.⁵ Again, the introduction of the boundary constitutes an assertion of sameness. To take a symbolic example, a full stop—or its spoken analogue, an intonational fall—again asserts that the same kind of grammatical object is (or is potentially, in the case of a termination) to be found on either side.⁶

To state the situation in terms of fundamental principles, a boundary is of necessity a moment in the precise region of a system in which it is constituted as a boundary. Classroom walls, then, create punctuations of space not curricular subjects. How do we move from a strongly classified physical space to a strongly classified curriculum? Not simply by labelling the doors—such labels are merely addresses and addresses are like boundaries insofar as they assert participation in the same system. A strongly classified curriculum is not in any sense predicated upon a strongly classified physical space, although the former may well recruit the latter in sustaining its classification, just as an existing political system recruited the Berlin wall in sustaining its classification.

Rather, the strongly classified curriculum is achieved by strategies that—at any given level of analysis—specialise the various contents. Specialising always takes place *within*; the *between* is always established in terms of intertextuality. Minimally, this may be established in terms of negativity: in mathematics we use symbols that are *not* used in geography, and so forth. Walls are, of course, no barriers to intertextuality.

⁵ In this case, the insulation must have a low value of conductance in order to separate two bodies having high conductance. In this sense, insulation is a negative kind of wall.

⁶ It would seem that this is a general rule for punctuation marks. Questions marks, for example, that appear to stand in breach of the rule are not, *qua* question marks, boundaries. That which follows a question mark may or may not be a question. What is asserted, however, is that it will be another sentence.

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Bernstein is correct only to a very limited extent in claiming that what is classified may be realised in different ways, specifically, in different interactional modes. The CMC classroom is plausibly one in which very strong classification is realised.⁷ Suppose, for example, that the teacher is completely silent, or ‘lurks’. S/he can, nevertheless, review every contribution made by the student, which might then be graded according to highly specialised principles and pass lists subsequently published. The problem for the student, of course, would be gaining access to the principles. Arguably, this is not a pedagogic situation, in Bernstein’s terms, because there is no transmission. The teacher may transform the situation into a pedagogic one by employing either weakly or strongly framed strategies—open questioning or lecturing, say. However, open questioning can remain open only insofar as the principles to be transmitted are weakly specialised or, rather, only in respect of those regions or aspects of the discourse that are weakly specialised. The panopticon (Foucault, 1977) might be construed as the archetype of weak framing.⁸ However, as with the teacher-lurker in the CMC environment, this can work only where the prisoner already possesses the principles of evaluation of their behaviour and that would not be a pedagogic situation, in Bernstein’s terms, because, again, it would entail no transmission. In terms of the construct introduced in Chapter 3, a *pedagogic relation* would not be in place because there is no mechanism whereby the author (teacher-lurker, warder in the tower) seeks to maintain control over principles of evaluation. The introduction of, say, a reward and/or punishment regime to complement the panopticon technology would establish pedagogic strategies—this is the technology of the road speed camera.

Essentially the situation is as follows. Where that which is classified is the privileged content (that which is to be transmitted) in a pedagogic situation, then the strength of framing of interactions must coincide with the strength of classification. Only where that which is classified is decoupled from this privileged content can classification and framing vary independently. An example of the latter would be, ‘you can do anything you like so long as you do it in this room’. Strong classification/weak framing, yes, but only because they do not refer to each other. The problem can be resolved once we recognise that it can be traced to Bernstein’s original decoupling of space and time. Such decoupling is, of course, characteristic of various strands of structuralism and has been challenged in each of them; Derrida (1978) in respect of Saussure; Baudrillard (1993) in respect of Marx; Lacan (1977) in respect of Freud; Bourdieu (1977) in respect of Lévi-Strauss; and so forth. Bernstein and Piaget—the great educational structuralists—have remained substantially immune, to date (although see Dowling, 1996, 1998, in respect of Piaget). Essentially, a space-time decoupling can be sustained only to the extent

⁷ I have taught masters modules and other courses on CMC employing CMC as the pedagogic environment.

⁸ Or, in a schooling context, Samuel Wilderspin’s use of cherry trees in the playground (see Hunter, 1994; Dowling, 1998).

that we ignore a shuffling between levels of analysis and that we keep our distance from the empirical.⁹

A consequence of the resolution of the problem is that of the four concepts, power, control, classification and framing, three are redundant. I propose to retain a concept of classification and, in the construction of my own language, dispense with the other three. In my own language I use the term *institutionalisation* to refer to the extent to which a practice exhibits an empirical regularity that marks it out as recognisably distinct from other practices (or from a specific other practice). Thus, I propose that activities—say school mathematics—be construed as strategic spaces whereby subjects are positioned and practices distributed. In particular, specialising strategies constitute practices that are strongly institutionalised with respect to those of other activities. Pedagogic action must entail the transmission or attempted transmission of these specialised practices. In order to achieve this, the transmitter must constitute a discourse that is accessible to the acquirer. This in turn is achieved when the transmitter—as a subject of the activity in question, say mathematics—casts a gaze beyond mathematics and recontextualises non-mathematical practice so that it conforms to the principles of specialised mathematical practice. Recontextualising is achieved by localising strategies, thus, the purchase of a loaf of bread in a supermarket becomes a local instance of specialised arithmetic.¹⁰

The effect of these strategies is to constitute a region of school mathematical practice that is weakly institutionalised with respect to the non-mathematical. This is the *public domain*, which contrasts with the *esoteric domain* that comprises practices that are strongly institutionalised with respect to the non-mathematical.¹¹ I shall move on to a consideration of my recontextualising of recontextualisation in Bernstein in the next section of this essay.

Recontextualising recontextualisation

It is of course obvious that all pedagogic discourse creates a moral regulation of the social relations of transmission/acquisition, that is, rules of order, relation, and identity; and that such a moral order is prior to, and a condition for, the transmission of competences. This moral order is in turn subject to a recontextualising principle, and thus this order is a signifier for *something other than itself*. (Bernstein, 1990; p. 184)

⁹ This issue of space-time decoupling will also come up in Chapter 8.

¹⁰ In another context, the purchase of a loaf of bread might become the localised instance of specialised domestic science and would be recontextualised to quite different effect.

¹¹ In Dowling (1998 and elsewhere) I measure strength of classification (now to be re-termed, institutionalisation) in respect of content and expression separately, thus generating a two dimensional space. The esoteric and public domains refer to those regions for which content and expression are both strong or both weak, respectively. The other two possibilities give rise to the descriptive and expressive domains. The full schema is presented in Chapter 8.

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My concept of ‘recontextualisation’ is also heretical in respect of Bernstein’s work. Bernstein’s use of the term refers to the creation of imaginary discourses from real discourses according to the ‘recontextualising principle’ that is ‘pedagogic discourse’ via the embedding of an ‘instructional discourse’ in a ‘regulative discourse’. Instructional discourse refers to specialised skills and regulative discourse to a moral order. By way of examples, Bernstein offers the recontextualising of carpentry—a ‘real discourse’—as ‘woodwork’—an ‘imaginary discourse’ and the recontextualising of university physics as school physics. My concern is that Bernstein’s theorising is constituting, for me, an unnecessary priority and not a little confusion. In order to demonstrate this, I shall need to work towards Bernstein’s higher-level concept, the pedagogic device. My point of departure is the above extract, which is from *Class, Codes and Control volume 4*.

The mode of expression has been modified in the revised version of this chapter (see Bernstein, 1996, c. 3)—it is, apparently, no longer quite as ‘obvious’. The theoretical formulation is retained, however, and the regulative (moral) discourse remains ‘the dominant discourse’ (Bernstein, 1996; p. 46) *vis a vis* the discourse concerned with the transmission of competences (the instructional discourse). However, in the 1996 version, the distinction between regulative and instructional discourse is analytic or, perhaps, ideological:

In my opinion, there is only one discourse, not two, because the secret voice of [the pedagogic] device is to disguise the fact that there is only one. Most researchers are continually studying the two, or thinking as if there are two: as if education is about values on the one hand, and about competence on the other. In my view there are not two discourses, there is only one. (Bernstein, 1996; p. 46)

There is only one, yet one of them is dominant. A little further on:

... *pedagogic discourse is a recontextualizing principle*. Pedagogic discourse is constructed by a recontextualizing principle which selectively appropriates, relocates, refocuses and relates other discourses to constitute its own order. In this sense, pedagogic discourse can never be identified with any of the discourses it has recontextualised.

We can now say that pedagogic discourse is generated by a recontextualizing discourse [...]. The recontextualizing principle creates recontextualizing fields, it creates agents with recontextualizing functions. These recontextualising functions then become the means whereby a specific pedagogic discourse is created. (Ibid.; pp. 47-8)

The apparent confusion here is, so far as I can determine, the result of a failure by Bernstein to use key terms consistently and to invent neologisms when *and only when* they are needed.

Bernstein is clearer when providing an example.

... the authors of textbooks in physics are rarely physicists who are practising in the field of the production of physics; they are working in the field of recontextualization.

As physics is appropriated by the recontextualizing agents, the results cannot formally be derived from the logic of that discourse. Irrespective of the intrinsic logic which constitutes the specialized discourse and activities called physics, the recontextualizing agents will select from the totality of practices which is called physics in the field of production of physics. There is selection in how physics is to be related to other subjects, and in its sequencing and pacing (pacing is the rate of expected acquisition). But these sections cannot be derived from the logic of the discourse of physics or its various activities in the field of the production of discourse. (Ibid.; pp. 48-9)

Bernstein may well be correct in his claim that school physics textbook authors are not generally practising physicists. However, this rather misses the point. The authors of university physics textbooks generally are practising physicists, yet there are many important differences between university textbooks and, say, research papers (see Myers, 1992, also Dowling, 1998). The downplaying of the relevance of the logic of the discourse of physics in its recontextualised form is also open to some challenge. In an associated field, for example, the development of the 'modern' school mathematics in the nineteen fifties and sixties was heavily influenced by the Bourbakiist principle of mother structures (see Dowling, 1989, 2007, Moon, 1986 and also Chapter 6 of the present work). It is also questionable whether the 'field of production' is the only or even the dominant object of the gazes of recontextualising agents. The nature of integral calculus in advanced level mathematics, for example, certainly attests to this: at high school students seemingly endlessly practice integration by standard methods only to discover that the university mathematics department finds little interest in any function that is integrable. I shall refer to this example again later.

Essentially, Bernstein is making empirical claims and providing quasi-empirical illustrations in order to bolster his theoretical apparatus. The productivity of the more esoteric regions of this apparatus is difficult to imagine. In an earlier formulation, the instrumental and expressive orders constituted schemes through which the school might be and indeed was analysed (see King, 1976—an analysis critical of Bernstein—and its criticism in Tyler, 1978; also Power et al, 1998). Now 'there is only one discourse'.

Jean Lave and Etienne Wenger agree that school physics is very different from university physics. They suggest that the decoupling may be even greater than Bernstein seems to imply:

... in most schools there is a group of students engaged over a substantial period of time in learning physics. What community of practice is in the process of reproduction? Possibly the students participate only in the reproduction of the high school itself. (Lave & Wenger, 1991, p. 99)

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In my conception, the school as a site is to be conceived as a moment of a sociocultural system (Baudrillard, not Parsons). In terms of interaction, all such sites are characterised by a specific form of articulation of the two modes of social action that I specified in Chapter 3. *Pedagogic* action constructs an author, an audience, and a privileged content in respect of which the principles of evaluation of texts or performances resides with the author. In *exchange* action the principles of evaluation are located with the audience. We might say that strongly classified—or formally institutionalised—content is likely to be elaborated under pedagogic relations; weakly classified—or informally institutionalised—content is likely to be elaborated under exchange relations. The distribution of these relations constitutes or, at least contributes to differentiation within the school.¹²

I have now made tacit reference to all three dimensions of Bernstein's pedagogic device: distribution, recontextualisation, and evaluation. The device—presumably, the 'something other than itself' for which pedagogic discourse is a signifier—is a somewhat heretical recontextualising of Chomsky's language acquisition device, with Bernstein explicitly adopting a Hallidayan rather than a Chomskian methodology (no problem here, of course). Bernstein argues:

Both the language device and the pedagogic device become sites for appropriation, conflict and control. At the same time, there is a crucial difference between the two devices. In the case of the pedagogic device, but not in the case of the language device, it is possible to have an outcome, a form of communication which can subvert the fundamental rules of the device. (Bernstein, 1996, p. 42)

But, of course, these devices cannot become sites for any such thing. They are not, in fact, sites at all because they are not, ultimately, empirically operationalisable. The pedagogic device is a very high level theoretical object and we must descend through multiple layers of theory before we ever get to something that we might validly refer to an empirical text. The pedagogic device is a part of Bernstein's 'internal language':

Briefly, a language of description is a translation device whereby one language is transformed into another. We can distinguish between internal and external languages of description. The internal language of description refers to the syntax whereby a conceptual language is created. The external

¹² Some elaboration is needed here. Pedagogic and exchange action are not to be interpreted as achievements—a teacher (author) may fail dismally in their attempts to teach (tell me about it!) Rather, they are strategic actions. In the pedagogic mode, the audience's performance may be evaluated according to visible pedagogic content. In exchange mode, performance may be evaluated in the same way, but the underlying evaluative principles are invisible (c.f. 'invisible pedagogy' in Bernstein, 1977) and this gives rise to a potential contrast between the audience performance—which the audience themselves may evaluate—and their competence as assessed by the author. A visible rendition of the latter situation (though in a perhaps confusingly different language) is a school report in which a student is graded 'A' for effort and 'E' for achievement; a not altogether uncommon finding in my own experience as a school teacher.

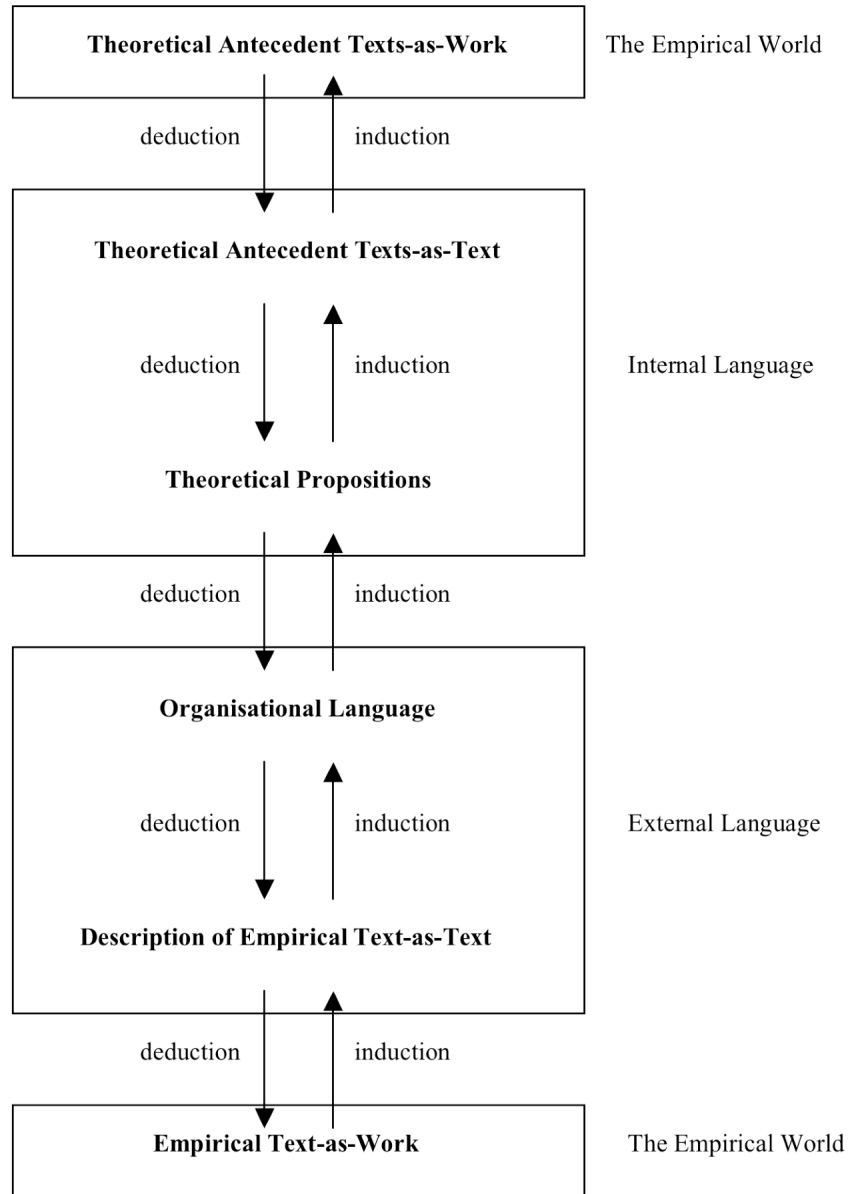


Figure 4.2. Schema for Constructive Description

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language of description refers to the syntax whereby the internal language can describe something other than itself. (Bernstein, 1996; pp. 135-6)

Bernstein's own work has a strong tendency to reside in the internal—I shall again make reference to this in Chapter 8. It is left to others to generate external languages. By and large, these tend to be very thin, commonly making reference to boundaries and insulation and so forth, which often carry serious theoretical problems (see Dowling, 1999a).

My formulation of my own general methodology—*constructive description*—is illustrated in Figure 4.2. This schema conceives the empirical world as being divided by the analyst to constitute theoretical and empirical texts. The nature of this division is institutionalised only up to a point. In particular, there seems to be a greater limitation on what might count as a theoretical text than there is on what might be taken as an empirical text. Thus, as will be discussed in Chapter 8, Rob Moore and Karl Maton (2001) take (not without problems) a work of literary studies by Frank Kermode (1967) as a key empirical object. Under other circumstances, such a work might well form part of the theoretical field. It is unlikely, however, that the empirical texts described in Chapters 2 and 3—agricultural settings, photographs and paintings, movies, monuments—would be considered legitimate theoretical texts, certainly not in sociology, though one might imagine some interesting developments upon making such a move.

The distinction, in Figure 4.2, between text(s)-as-work and text(s)-as-text (introduced in Chapter 2) is from Roland Barthes (1981). Essentially, the text-as-work is a purely imaginary category referring to the book on the library shelf or the potential view from the bus window etc prior to being noticed. Once the text has been noticed, theorising has begun on the basis of more or less explicit theoretical propositions or a more or less explicit organisational language. To put this another way, 'only theoretical objects may be discovered; an empirical object is merely encountered' (Dowling 2007; p. 191fn.). Figure 4.2 also distinguishes between deduction and induction such that the former refers to moves from the theoretical side of the division to the empirical and the latter to moves in the opposite direction. This suggests something about the nature of the original division that is consistent with the tendency for paintings and movies etc to be restricted to the empirical side—deduction seems to require language. I shall introduce the term *discursive saturation*, below, to formalise this distinction.

The two central boxes in Figure 4.2 seem to approximate to that, which in Bernstein's formulation, are the internal and external languages of description. It is important to note that the principal theoretical and empirical achievement—such as it is—of my work takes place in the area signified by the box corresponding to Bernstein's external language. That is, at the point of interface between the theoretical and the empirical. Bernstein seems to want to produce a theoretical system that is a model of what might metaphorically be described as the consciousness of society. My own project is rather less ambitious. I am simply trying to manufacture a machine that will help me to organise what I see. In order to move between levels of analysis—say between the analysis of a conversation

and the analysis of school practices (move 1) and the analysis of state policy (move 2), and so forth, I simply reapply the same conceptual framework, generating indicators that are appropriate to the new level. The method has, in this respect, the fractal quality that I mentioned in Chapter 2. Recontextualisation, in my language, is far more generalisable than it would appear to be in Bernstein's. I define it as the subordination of the practices of one activity to the principles of another. It is precisely the empirical analysis of the productivity of recontextualisation that enables the constructive description of the recontextualising activity.

The categories, classification and framing also exhibit a fractal quality. Their disadvantage lies, as I have argued, in that they do not themselves occupy the same level of analysis. A good deal of Bernstein's theory (and here he is certainly not alone) is fixed in terms of its referent level. It may be that this is associated with his preference, following Halliday, for network analysis. This is an approach that fixes levels of analysis in relation to each other as one moves between levels of the network. I would describe a network as an analysis that has been terminated at a stage prior to the full development of theory. Bernstein has similar reservations about ideal types:

Classically the ideal type is constructed by assembling in a model *a number of features* abstracted from a phenomenon in such a way as to provide a means of identifying the presence or absence of the phenomenon, and a means of identifying the 'workings' of the phenomenon from an analysis of the assembly of its features. Ideal types constructed in this way cannot generate other than themselves. They are not constructed by a principle which generates sets of relations of which any one form may be only *one of the forms* the principle may regulate. (Bernstein, 1996; p. 126-7)

My feeling is that it is inappropriate to crystallise a method in this way. In Chapter 1, I presented the game, Mastermind as an ideal type for scientific investigation and, in Chapter 3, I explicitly described my own organisational language as employing ideal types. However, my approach is to make a group of modes conceptually coherent to the point that they participate in the same theoretical system. *Pedagogic* and *exchange* actions constitute a case in point: they are defined in relation to each other in terms of the variable, 'location of the principles of evaluation'. The application of an empirically driven network analysis does not encourage theorising to this level; the development of a theoretically driven network does not encourage empirical operationalisation, or productive dialogue between the theoretical and the empirical.

Vertigo and verticality

Bernstein's networks are commonly theoretically driven, hence his resistance to the accusation of having produced ideal types. The empirical is not absent in his theory building, but appears, shall we say, hazily. His description of vertical and horizontal discourses is illustrative. The network (Figure 4.3) is beautifully clear in terms of its oppositions: vertical/horizontal, between/within, strong/weak,

explicit/tacit. The difficulty arises when we try to assign empirical instances to locations in the network. There are two modes of vertical discourse:

A vertical discourse takes the form of a coherent, explicit, systematically principled structure, hierarchically organized, *or* it takes the form of a series of specialized languages with specialized modes of interrogation and specialized criteria for the production of texts. (Ibid.; p. 171)

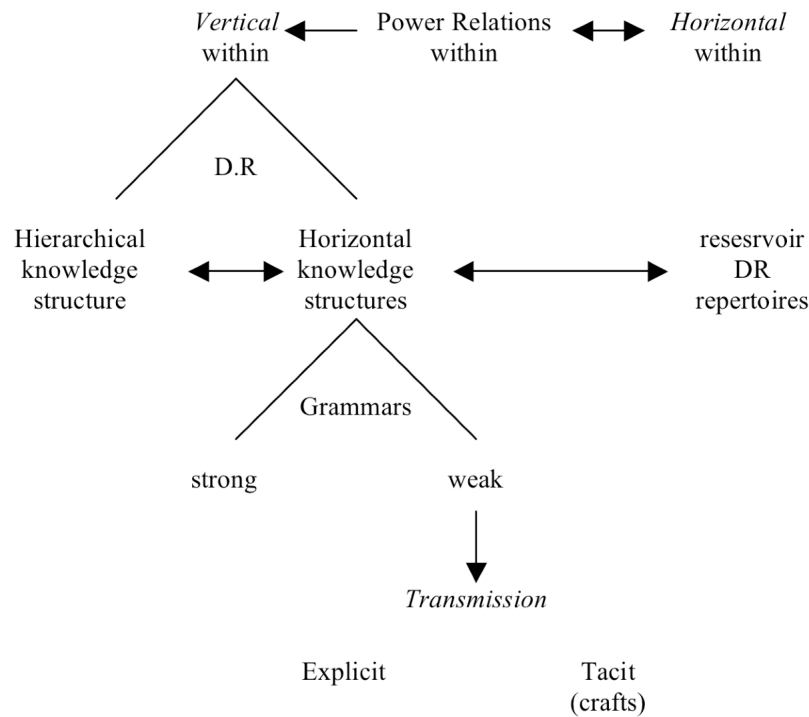


Figure 3. Bernstein's Discursive Map (from Bernstein, 1996; p. 175)

The natural sciences are offered as characterised by the former mode (hierarchical knowledge structure) and the humanities and social sciences by the latter (horizontal knowledge structures). Now my question is, where does the essential quality of the knowledge reside? Is it in the day-to-day working practices of practitioners, or in the structure of learned journals, in the lexicon of specialised terms, in the activities of research funding agencies, in models of apprenticeship of new practitioners? I could continue. Having some experience of higher education in both the natural and social sciences, my suspicion is that any discipline will exhibit variations in terms of horizontality and hierarchising as we shift attention between these and other contexts. In any event, both Bernstein's original claim and my suspicion raise empirical questions that remain to be addressed.

Bernstein's descriptions of knowledge structures came at the very end of his career. However, it seems clear that their origins lie in his very earliest work on speech codes and orientations to meaning. Ruqaiya Hasan presents in sociolinguistic terms the problem of inequality of access in schooling, which was Bernstein's concern.

... in the everyday register repertoire of the dominating classes, there are some discourse types which are much closer to the social domains introduced in the pedagogic system. This prepares children from the dominating classes to receive the discourses of educational knowledge with much greater readiness. In addition to this, the semantic orientation of the dominant classes is congruent with the required semantic orientation for the (re-) production of 'exotic,' uncommonsense knowledge. The discourses of education, thus, present little or no threat to the habitual ways of meaning and saying which children from the dominant classes bring to the school. (Hasan, 1999; p. 72-73)

The problem being that the same cannot be said of the ways of meaning and saying which the children from the subaltern classes bring to the school. This was a problem for teachers which, a quarter of a century earlier, Bernstein had famously framed as follows:

If the culture of the teacher is to become part of the consciousness of the child, then the culture of the child must first be in the consciousness of the teacher. (Bernstein, 1974; p. 199)

Driving home his critique of so-called 'compensatory education', Bernstein followed this aphorism with:

It is an accepted educational principle that we should work with what the child can offer: why don't we practise it? The introduction of the child to the universalistic meanings of public forms of thought is not compensatory education—it is education. (Ibid.)

In another chapter in the same collection, Bernstein elaborates on what he means by 'universalistic meanings':

... we might be able to distinguish between two orders of meaning. One we would call universalistic, the other particularistic. Universalistic meanings are those in which principles and operations are made linguistically explicit, whereas particularistic orders of meaning are meanings in which principles and operation are relatively linguistically implicit. If orders of meaning are universalistic, then the meanings are less tied to a given context. The meta-languages of public forms of thought as these apply to objects and persons realize meanings of a universalistic type. (Ibid.; p. 175)

The culturally acquired orientations towards speech variants realising, respectively, universalistic and particularistic meanings are the well-known *elaborated* and *restricted codes*. Bernstein introduces various examples of these speech variants,

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some taken from empirical work conducted by himself or colleagues and some that seem to be imaginary. One example ‘constructed’ by a colleague, Peter Hawkins, ‘as a result of his analysis of the speech of middle-class and working-class five-year old children’ (Ibid.; p. 178) involves two short stories. The children in Hawkins’ research had been shown a series of pictures showing, firstly, boys playing football, then the ball going through a window, a woman looking out of the window and, finally, a man making ‘an ominous gesture’ (Ibid.; p. 178). The two stories are as follows:

1. Three boys are playing football and one boy kicks the ball and it goes through the window the ball breaks the window and the boys are looking at it and a man comes out and shouts at them so they run away and then that lady looks out of her window and she tells the boys off.
2. They’re playing football and he kicks it and it goes through there it breaks the window and they’re looking at it and he comes out and shouts at them because they’ve broken it so they run away and then she looks out and she tells them off. (Ibid.; p. 178)

The use of ‘constructed’ or imaginary illustrations is quite common in Bernstein’s work. Another example appears in his analysis of knowledge structures:

With this definition in mind, I wish to consider a fictitious community operating only with horizontal discourse. (Bernstein, 1999; p. 159)

This approach to the empirical sometimes raises problems, as I shall argue later. It is not entirely clear why, in the footballers case, he chooses not to introduce two stories that were actually produced by children participating in the research. Nevertheless, the manufactured stories do adequately illustrate his categories. Essentially, whereas the second story makes frequent direct references to the pictures, the first does so only once (‘that lady’). Bernstein argues that the reader of the first story does not need to have access to the pictures because the meanings are made explicit and are universalistic, whereas the reader of the second story does need the pictures because meanings are implicit and particularistic. I shall return to these stories later. For the moment, though, I want to outline—in very general terms—Bernstein’s argument in relation to social class, codes and schooling.

Firstly, and although the relationship is not simple or by any means determinate, Bernstein claims that the tendency is for primary socialisation in working class families to privilege restricted codes and therefore orientation to particularistic meanings and for that in middle class families to provide greater access to elaborated codes and therefore orientation to universalistic meanings; as Bernstein summarises: ‘One of the effects of the class system is to limit access to elaborated codes’ (Bernstein, 1974; p. 176).¹³ Secondly, Bernstein argues that the potential for

¹³ Collins (2000) also raises the question of the gendering of coding orientations.

change in the principles of a practice and of reflexivity in respect of the bases of socialisation is greater in the case of elaborated than restricted codes:

Elaborated codes are less tied to a given or local structure and thus contain the potentiality of change in principles. In the case of elaborated codes the speech can be freed from its evoking social structure and it can take on an autonomy. A university is a place organized around talk. Restricted codes are more tied to a local social structure and have a reduced potential for change in principles. Where codes are elaborated, the socialized has more access to the grounds of his [sic] own socialization, and so can enter into a reflexive relationship to the social order he has taken over. Where codes are restricted, the socialized has less access to the grounds of his socialization and thus reflexivity may be limited in range. (Bernstein, 1974; p.176)

How often do we hear academics insisting on the material effectiveness of their own ideology?

Thirdly, Bernstein contends that because schooling is oriented towards the ‘universalistic meanings of public forms of thought’, schools that are not adequately geared to the introduction of these universalistic meanings to children having limited access to elaborated codes are likely to induce failure in these children, thus:

What is made available for learning through elaborated and restricted codes is radically different. Social and intellectual orientations, motivational imperative and forms of social control, rebellion and innovation are different. Thus the relative backwardness of many working-class children who live in areas of high population density or in rural areas may well be a culturally induced backwardness transmitted by the linguistic process. Such children’s low performance on verbal IQ tests, their difficulty with ‘abstract’ concepts, their failures within the language area, their general inability to profit from the school, all may result from the limitations of a restricted code. (Bernstein, 1974; p. 151)

Now I should emphasise that Bernstein’s theory is highly complex and develops within each of his major books—all of which are collections of papers originally written separately—and between them (Bernstein, 1971, 1974, 1977, 1990, 1996, 2000). I have, of necessity, had to simplify here. It is also important to mention that there is a great deal of empirical work that is associated with this early sociolinguistic theory and with his later work.¹⁴ Nevertheless, it is possible, on the basis of what I have been able to introduce, here to raise some critical issues, which do, I believe, have more general validity.

Firstly, referring back to the two stories about the footballers, not only is it a dubious claim that most readers of the second story would need access to the

¹⁴ For example, see Adlam, 1977, Bernstein (Ed.), 1973, Bernstein et al (Eds), 2001 as well as the references in Bernstein’s own writing.

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pictures (or descriptions of them) in order to make sense of the story, but the first story is perhaps better described as vague rather than universalistic. It is not clear how we might interpret it unless we have further information about the context of its telling: is it a report of an experience, an interpretation of a scene, an academic example, etc? Precisely what would one be able to conclude about what was going on upon overhearing just this amount of the conversation? Bernstein is able to refer to the first story as more universalistic than the second only because he has prioritised specifically linguistic markers of context of which there are more in the second story than the first. The teller of the first story can produce such a vague utterance only because their audience shares the immediate context. On overhearing the second story, I would suggest, one would actually have more clues to enable one to make sense of the situation. This is not to deny the kind of distinction that Bernstein is making—it is a crucial one, as I shall argue later. However, my intention is to challenge, heretically, his interpretation of the nature of the difference.

In their work with American teenagers from upper and middle class backgrounds, Gee, Allen and Clinton (2001) find that, indeed, teenagers do use different styles of language to ‘fashion themselves’ with respect to quite distinct worlds:

The working class teens ... use language to fashion their identities in a way that is closely attached to a world of ‘everyday’ (‘lifeworld’) social and dialogic interaction The upper middle class teens ... use language to construct their identities in a way that detaches itself from ‘everyday’ social interaction and orients more towards their personal biographical trajectories through an ‘achievement space’ defined by the (deeply aligned) norms of their families, schools, and powerful institutions in our society. In addition, the upper middle class teens often seem to use the abstract language of rational argumentation to ‘cloak’ (o[r] ‘defer’) their quite personal interests and fears, while the working class teens much more commonly use a personalized narrative language to encode their values, interests, and themes. (Gee et al, 2001; p. 177)

As the authors recognise, it would be easy to apply the labels of elaborated and restricted code to these two forms. However, they argue that this would be to fail to recognise that each style is highly dependent upon interpretive frames that are generated by their specific and material life conditions. Furthermore, they claim that neither group seems able to reflect consistently or critically about society. Neither group, in other words, seems able to generate the kind of reflexivity for which Bernstein sees potential in elaborated codes.¹⁵

¹⁵ Cheshire describes differentiation in narratives recounted in peer groups by young teenagers. She concludes that ‘for the boys the telling was the more salient aspect of a narrative whereas for the girls it was the tale’ (Cheshire, 2000; p. 258). Like Gee et al she grounds the differentiation in a social base, in this case in the gendered patterning of peer relations.

Put another way, Bernstein's suggestion that 'a university is a place organised around talk' is stunningly asociological in its apparent ignoring of the patterns of social relations that enable meaning to be attributed to university talk as discourses and as strategies in the establishing, maintenance and dismantling of the alliances and oppositions that constitute these relations. As Pierre Bourdieu (1991) has argued, the power of language comes from outside of it and Bernstein was handed the authorising skeptron of an academic chair rather early in his career. Even so, he should have known better, being a master player of the power game himself. Here is part of one of his footnoted references to me—as someone he considers, no doubt quite rightly, a junior player, I can only ever aspire to footnoted appearances:

[Dowling] shows successfully how the texts constructed for these 'ability levels' incorporate, differentially fictional contexts and activities drawn from the Public Domain in the classification and framing of mathematical problems ... (Bernstein, 1999; p. 170)

In my work I have explicitly rejected the concept of 'framing'—a fact of which he was certainly aware. Here I am, nevertheless, being installed as a faithful Bernsteinian.¹⁶

Bernstein's early work on speech codes and his mature work on knowledge structures fail, in my heretical view, by fetishising different domains of cultural practice. The speech codes work detaches the linguistic from the social by dealing hastily (or not at all) with the empirical observation of linguistic production. The characterising of knowledge structures does much the same thing in fetishising knowledge or ideas—more of this in Chapter 8. A neat link is found in the reference to the university as 'a place organised around talk', a claim that was uttered in the earlier phase. It is worthy of mention, in passing, that Bernstein's characterisation does indeed seem consistent with Ludwig Fleck's (1981) 'thought collectives', but that hardly addresses my criticism. Bernstein wants to catch at the real, but attempts to do so by ignoring the phenomenal forms that, in his own methodology, might enable his real to speak to him. As I have indicated here and in earlier chapters, I have no interest in fabricating a subjacent real. But my constructions must at least in part derive from a preliminary organising of the kinds of phenomena that I am designing them to structure. Ultimately, these must include the micro-actions relating to the formation, maintenance and destabilising of oppositions and alliances upon which social structure and cultural practice are to be seen as emergent.

Nevertheless, the kind of distinction that Bernstein is making is, as I suggested above, potentially highly productive. Drawing on this and on a whole set of other attempts at establishing roughly corresponding oppositions (see Figure 4.4), I have formulated a distinction between two strategic modes—as distinct, of course, from knowledge forms and from orientations to universal or local meaning. Actions,

¹⁶ In this extract, Bernstein also presents a misrepresentation of my category, *public domain*. This term refers to already recontextualised practice—shopping under the gaze of school mathematics, not shopping as such—see below and Chapter 8.

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then, can be considered in terms of the extent to which they tend to realise the principles of an activity in discursive form. Texts that exhibit this feature are said to exhibit a high *discursive saturation* (DS⁺). On the other hand, texts that tend to render the principles in non-discursive form are described as low discursive saturation (DS⁻). Incorporating this variable in the system that I have been

Author	Abstract	Concrete
	Context-independent	Context-dependent
	Generalisation	Localisation
	DS ⁺	DS ⁻
Bernstein	elaborated code vertical discourse	restricted code horizontal discourse
Bourdieu	formal/theoretical logic	practical logic
De Certeau	strategies	tactics
Foucault	programmes	technologies
Freud	ego	id
Lévi-Strauss	science	bricolage
Lévy-Bruhl	modern thinking	primitive thinking
Lotman	rule-governed practice	repertoire of exemplary texts
Luria	abstract thinking	situational thinking
Piaget	sociocentrism/egocentrism science/reflective thought	technique/sensori-motor
Sohn-Rethel	intellectual	manual
Vygotsky	conceptual thinking	complex thinking
Walkerdine	formal reasoning	practical reasoning

*Figure 4.4. The Dual Modality of Practice*¹⁷

¹⁷ The table refers to the following work: Bernstein (1977); Bourdieu (1977, 1990); De Certeau (1984); Eco (1976, regarding Lotman); Foucault (1980); Freud (1973); Lévi-Strauss (1972); Luria (1976, and regarding Lévy-Bruhl); Piaget (1995); Sohn-Rethel (1973, 1975, 1978); Vygotsky (1978, 1986); Walkerdine (1982).

developing in this book, I produce the practical strategic space shown in Figure 4.5. The distinction between specialising and generalising corresponds to that between localising and articulating; the former category in each pair operates to delimit the range of application of the practice, whilst the latter extends it.

	Institutionalisation		Pedagogic Strategies	Non-Arbitrary Pedagogic Resource
	Formal (Γ^+)	Informal (Γ)		
DS ⁺	<i>discourse</i>	<i>idiolect</i>	Specialising Generalising	Principles
DS ⁻	<i>skill</i> (competence)	<i>trick</i> (performance)	Localising Articulating	Exemplars
	Pedagogic		Exchange	
	(Re)producing Activity			

Figure 4.5. Practical Strategic Space

I want to raise the claim that my approach facilitates both theoretical development and the analysis of empirical technologies, texts and sites. In order to illustrate this I shall illustrate the application of the practical strategic space by quite briefly telling the stories of two educational activities of which I have quite extensive professional and academic experience. Firstly, I shall consider the teaching of educational research methods and methodology at postgraduate level, including the supervision of doctoral students. Here, I will draw on my experience as the student of Basil Bernstein as well as that as a teacher and as an author, both of research papers and of texts directly addressing research methods (for example, Brown & Dowling, 1998; Dowling & Brown, forthcoming; Brown, Bryman & Dowling, forthcoming). Secondly, I shall focus on the teaching of mathematics at secondary education level. My own student experience in this area is rather too far in the past to be reliably recalled, but I do have fifteen years experience as a professional teacher of mathematics followed by several further years in initial teacher education and have published research in the field of mathematics education (in particular, Dowling, 1998, but also see Chapter 6). The insertion of this brief curriculum vitae is intended, of course, to establish one foot in the empirical or phenomenal textual graveyard (texts-as-work/texts-as-texts). To plant both feet there would be to submit, I think, to naïve empiricism, an alternative to the theoreticism of the dematerialised soul. Nevertheless, I should confess to being, here, not quite as close to the empirical as I would like—in its formulation, analysis should allow the phenomenal text voice if it is itself to speak (even if only transiently) about something other than itself, if it is to learn (a tenet frequently uttered, though less frequently followed by my former mentor).

THE FRAMING OF RESEARCH METHODS

Those of us whose authority often rests, in traditional mode, on an attributed facility with academic research may tend to represent it as exhibiting a strongly institutionalised, DS⁺ form. In the terms of Figure 4.5, this would be to deploy a strategy of *discourse*. This is certainly the mode of much of the presentation of my written work on methodology and, indeed, in most other written work that I have come across. Approaches to data collection and so forth are marked out (*specialised*) and brought under a single logic (*generalised*). Terms are defined in the production of a self-referential *esoteric domain* that is taken to be research methodological knowledge. Elements of this ‘knowledge’ are then recruited in the writing-up and presentation of research reports and papers, research questions are (usually) clearly stated, research designs and sampling strategies are clearly identified, and measures of validity and reliability offered. In terms of its public face, research methodology—whether quantitative or qualitative in emphasis—is generally presented as highly principled and strongly regulated—indeed, to allow any weakening of the institutionalisation of methodology would be to weaken the authority of the author. Clearly, the reproduction of the *discourse*—the teacher-student encounter—is *pedagogic*.

But the principles that are laid out in research methods texts do not generally operationalise all that readily. The first inkling of this that occurs to the teacher is in the appraisal of students’ coursework. The apparent acquisition of the methodological ‘knowledge’ does not, in itself, facilitate the production of an acceptable review of a research paper.¹⁸ The notion of an academic argument, for example, is implicit in the system of methodology and is strongly institutionalised, which is to say, the teacher can readily recognise when an adequate argument is presented and when one is not. For example, there is, in my experience, generally a high probability of agreement between teachers; my co-markers and I rarely disagree on initial marking of more than ten percent of coursework and then almost always only by a single grade or inflection and our disparities are quickly resolved (one way or the other) in discussion. Yet, whilst the students can generally formulate and commonly deploy the definitions of methodological terms, the production of an argument in a review seems far more tricky and unreliable. This is because, as I have suggested earlier, the principles of recognition of an academic argument are tacit and there are no—arguably, there can be no—explicit principles of realisation. The approach to be adopted by the teacher, here—again pedagogic—is likely to be the deployment of *localising* and *articulating* instances of *skill*, most effectively, perhaps, through the presentation of *exemplars* of recognised good practice. But the focus, here, tends not to be on the specific instance of skill, but rather on the development of a generalisable *competence* on the part of the student precisely because the practice—the visible form of the skill—is strongly institutionalised.

¹⁸ The production of a critical review of a research paper is the main component of the coursework for an MA module in research methods that I am associated with at the Institute of Education.

The esoteric domain of research methodology and the recognition and realisation of academic arguments together constitute the strongly institutionalised, visible face of research. Much of the doing of research, however, is not visible and so less likely to be strongly institutionalised; strong institutionalisation would have to depend upon a strongly maintained (but largely unpoliceable) ethic or collective conscience. It will be apparent that from my general methodological perspective, a collective conscience must stand as the projected construct of the commentator rather than as a generative structure; projections onto private domains are mere mythologisings. Just how does one go about analysing hundreds of pages of interview transcripts or fieldnotes? Well, the supervisor of one's thesis can help, again via the production and articulating of local instances of analytic skill, though they can't do it all.¹⁹ Precisely because of the privatised and, indeed, individualised nature of the task, the emphasis must be placed on the *performance* rather than on any underlying competence. The latter, of course, is to be rendered accessible by assessment practices that may find their way into the *viva voce* examination (or may not—in the UK the viva is itself still a pretty private affair). But here we have moved back to the public face of research methods, insofar as the thesis itself is publicly accessible. Insofar as the actual enactment of analysis—the deployment of *tricks*—tends to be private, its performances are achieved in *exchange* mode.

Now presenting one's work generally entails some kind of claim to originality. There are, of course, numerous ways in which this might be attempted, but they will all involve territorialising in respect of one or more of the three aspects: theory, methodology and empirical setting. The marking out of a specific empirical setting on the basis of opportunity—a common feature of work carried out for masters dissertations—involves a localising strategy that lays claim to originality in respect of a specific trick, which is to say, the performance of this particular legitimate access. This is my strategy here in making reference to my experience as a teacher and student of research methods in establishing the empirical setting for these remarks. I might, of course, have deployed some of the discourse of research methods in introducing specific illustrations pointing, for example, to my sampling strategy (why this particular example) and I may feel inclined to introduce some discussion of research ethics in justifying the use of data deriving from my professional teaching activities, but I have chosen not to do so here. Where originality is claimed in terms of the development of new methods or new theory, then it is likely—certain, in the latter case—to be necessary to produce an analogue of principled discourse that is, by very virtue of its originality, weakly institutionalised. Indeed, the institutionalisation may be limited to the singular instantiation of the methodology or theory. This would be an *idiolect* strategy. Insofar as my own theoretical and methodological constructions have been published and cited elsewhere, I may claim to a degree of institutionalisation that aspires to discourse. The reader may care to consider whether terms such as

¹⁹ Especially if, as is commonly the case at the Institute of Education, the data is in a language spoken by the student, but not the supervisor.

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‘elaborated description’, ‘epistemological paradox’ and the specific definitions of ‘localising’ and ‘generalising’ that originated (as far as I am aware) in *Doing Research/Reading Research* (Brown & Dowling, 1998) are appropriately construed as discourse or idiolect. New theory and methodology, then, is idiolectical unless and until it becomes institutionalised within the esoteric domain of the academic domain in which it participates. Until that time, it must accept the imposition of audience principles in respect of its evaluation; its reproduction, such as it may be, is exchange mode.

This brief analysis of research methods establishes a public/private division in the activity. The comparatively strongly institutionalised public region consists of books, reports, papers, presentations and so forth that are taken to materialise the esoteric domain discourse of educational research methods and methodology (as well as the specific regions of educational research—sociology of education, applied linguistics, and so forth—that the respective documents represent). The regularities of form exhibited by this documentation also facilitate the communication of competence in the form of the deployment of tacit principles of recognition and realisation of legitimate academic argument. This public region is emergent upon a private region of relatively weakly institutionalised actions by individual researchers in the construction and marketing of their research. This construction and marketing, though privately elaborated, is conducted within the context of the emergent discourse and skills as a background and as a target as researchers aspire to feature in the discourse.

An interesting collateral result lies in the plausible contrast between at least some approaches to quantitative as distinct from qualitative research. So, to the extent that, for example, survey data collection and analysis is at least potentially carried out in public through the availability of survey instruments and raw data, then these aspects of quantitative research are appropriately interpreted as discourse. That is to say, they are strongly institutionalised and explicitly principled. Scope for private performance is then to be found in, for example, the production of individual questionnaire items; scope for idiolect is to be found in the attempted development of new statistical theory. With qualitative research, the actual practice of data collection and analysis are, in my experience, often amongst the most privately performed actions. This was, for example, the case in the fieldwork carried out for the research reported in Chapter 7—we have certainly never made our interview tapes or fieldnotes available to anyone else. There is a resonance between the kind of public/private distinction that I am marking here and that which I shall present in Chapter 6, the point here being that the really important decisions are often only ever taken in private.

THE FRAMING OF SCHOOL MATHEMATICS

School mathematics also establishes a public/private distinction but, partially, at least, in a slightly different way. The public region of the practice is perhaps most evident in textbooks and other published curricular material, including syllabuses and curricula; this region exhibits a partitioning, often realised as a dichotomy. As I

have illustrated elsewhere (Dowling, 1996, 1998, 2001), ‘high ability’ is constructed, textually, as meriting access to the explicit principles of the *esoteric domain* of school mathematics. As I have indicated above, I define the esoteric domain of a practice as that region in which both content and forms of expression are most strongly institutionalised. In school mathematics, this region is substantially—though not exclusively, as I shall illustrate below—constituted by high discursive saturation strategies. ‘High ability’ is therefore constructed as meriting entry into mathematical discourse. ‘Low ability’, by contrast, tends to be constructed as demanding residence in the *public domain*. The public domain is the product of the casting of a mathematical *gaze* onto non-mathematical practices, *recontextualising* them via a redescription in terms consistent with mathematical principles, that is to say, consistent with the principles of the esoteric domain.

Now, firstly, it will be apparent that, insofar as the principles of the redescribed practices constituting the public domain are not themselves available within the public domain, then an audience that is textually limited to that domain is presented with practices that are, in effect, tacitly principled.²⁰ Here is an example of such a public domain task.

Here are two packets of washing powder. The small size contains 930g of powder. It costs 84p.

The large size contains 3.1 kg of powder. it costs £2.56.

- (a) How many grams do you get for 1p in the small size?
- (b) How many grams do you get for 1p in the large size? (Remember you must work in **grams** and **pence**.)
- (c) Which size gives more for your money?

(SMP 11-16 Book G7; p. 2)

The procedure for completing tasks that are all very similar to this one is given in the text. However, this is formulated in localised, public domain terms, so that no access is provided to the generalised, esoteric domain mathematical principles relating to, in this case, direct proportion. It is these esoteric domain principles that facilitate the general deployment of such strategies. It should also be noted that the mathematical recontextualising of, for example, shopping practices generally entails that the procedures offered in textbooks are radically inconsistent with those deployed by shoppers (see Dowling, 2001b; Lave et al 1984). This establishes an intertextual tension between school mathematical strategies and what we might call, following de Certeau (1984) everyday tactics. Such tensions may help to explain the social class patterning of school mathematics performances described by Cooper and Dunne (1999). However, the point to be made, here, is that the exclusion of high discursive saturation strategies in textbooks constituting ‘low ability’ audiences presents as skills practices that, within the context of school mathematics generally, are more appropriately understood as discourse (access to

²⁰ I should emphasise that this is a textual limitation. There is no insistence here that an empirical audience may not infer principles that will enable successful completion of public domain tasks, simply that the text itself may not provide access to those principles.

which is a textual condition for the generalisation of public domain procedures). In everyday terms, these practices are more likely to be recognised as tricks in that their elaboration is generally privatised.²¹

As I have suggested, not all of the school mathematics esoteric domain is constituted by high discursive saturation practices. I will give one brief example from my own (albeit somewhat distant) experiences as a mathematics teacher. This example—the one that I indexed earlier in this chapter—relates to the teaching of standard techniques in the topic, integral calculus. I want to suggest that, whilst the techniques themselves—for example, integration by substitution—are presented discursively, the principles of their application—the principles of recognition that generate the selection of the particular approach to be used in a particular case—generally are not. The student must acquire what is probably best described in my schema as a skill. This is not wholly dissimilar to the acquisition of competence in academic literacy as discussed earlier. It is of further interest that the use of such techniques has little or no use-value in the study or application of mathematics and related fields above school level, other than in school mathematics teaching, of course. This skill, then, stands merely as a shibboleth for entry into such fields.

In the 1980s—around the time of the publication of the Cockcroft (1982) report on school mathematics—an interest burgeoned in developing an investigative approach to mathematics (see, for example: ATM, 1979; Bloomfield, 1987; Mason, 1978, Mason et al, 1982). The concern was to shift emphasis from the transmission of techniques to the production of mathematical knowledge that would be, in some sense, original, at least to the students producing it. The general idea involved the deployment of the kind of heuristics articulated by George Polya (1946) in new situations. Figure 4.6 is an example that I found in various forms in use in school texts and classrooms. The kinds of heuristic techniques that might be deployed on this task are publicly and discursively available in Polya's and more recent publications. As is the case with integration techniques, the principles of their deployment is given only by published exemplars (for example, Mason et al, 1982) that might or might not be sufficient to enable students to make a start on the 'investigation' in Figure 4.6. 'Investigating', then, involves skills and, perhaps, tricks. I will make a start on the task in Figure 4.6 to illustrate how it might be approached.

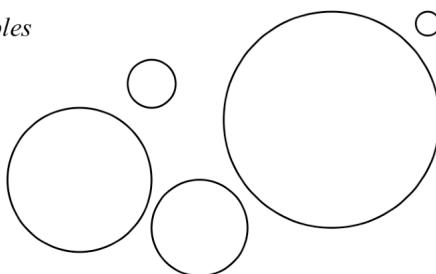
Firstly, I need to understand my problem (Polya, 1946). In this case, this means to make some decisions as to what features of bubble arrangements I want to be concerned with. I am going to decide that I am concerned only with differences relating to the two operations, putting bubbles alongside each other and putting one bubble inside another. That is, the actual location of one bubble relative to another on a page is only to be considered in terms of whether it is: i) outside, but not containing the other; or ii) outside and containing the other; or iii) inside the other. This is an arbitrary decision in the sense that I might have decided to take account

²¹ Many of the examples presented in Lave (1988) and Lave *et al* (1984) give the impression of being both idiosyncratic (tricks) and very imaginative.

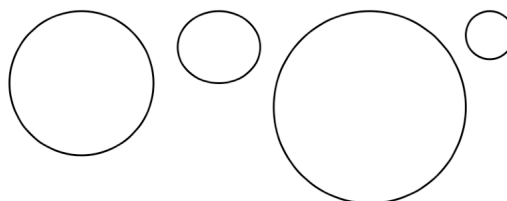
of, say, the size of a bubble or its location on the page in terms of a coordinate system. The decision that I have taken entails that, for example, the two arrangements in Figure 4.7 are to be regarded as equivalent. It also entails that all bubbles are equivalent (ie irrespective of their sizes). It will be apparent that, in the context of this ‘investigation’, there is an openness in the interpretation of the

Bubbles

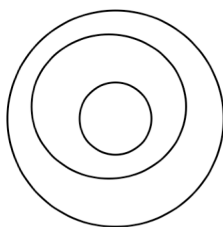
These are *bubbles*



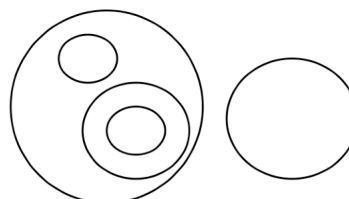
Bubbles can be enlarged or shrunk and can be placed next to each other, like this:



Or bubbles can be placed inside each other, like this:



Or both, like this:



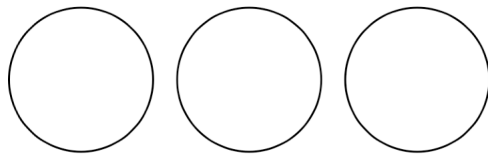
Bubbles cannot intersect. Investigate.

Figure 4.6. A School Mathematical Investigation

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heuristic, ‘understand the problem’. Its method of deployment—though not the delineation of the resulting ‘understanding’—is certainly achieved via strategies of low discursive saturation. In my case, the decisions that I have taken might be regarded as a skill, because I have chosen to establish equivalence to mean topological equivalence, that is to say, I have adopted an aspect of an established mathematical language.²²

Pattern 1



Pattern 2

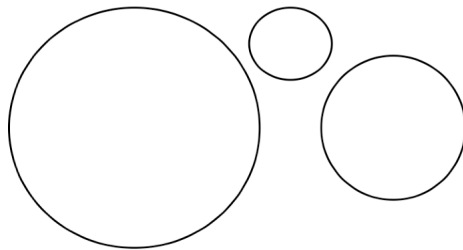


Figure 4.7. Equivalent Patterns

I notice that deploying either of my two operations successively generates a particular mode of arrangement. I shall call these kinds of arrangement, respectively *serial* and *concentric*; see Figure 4.8.

²² ‘Topology is concerned with those properties of geometric figures that are invariant under continuous transformations. A continuous transformation, also called a topological transformation or homeomorphism, is a one-to-one correspondence between the points of one figure and the points of another figure such that points that are arbitrarily close on one figure are transformed into points that are also arbitrarily close on the other figure. Figures that are related in this way are said to be topologically equivalent. If a figure is transformed into an equivalent figure by bending, stretching, etc., the change is a special type of topological transformation called a continuous deformation.’ *Columbia Encyclopedia*. <http://www.bartleby.com/65/to/topology.html>.

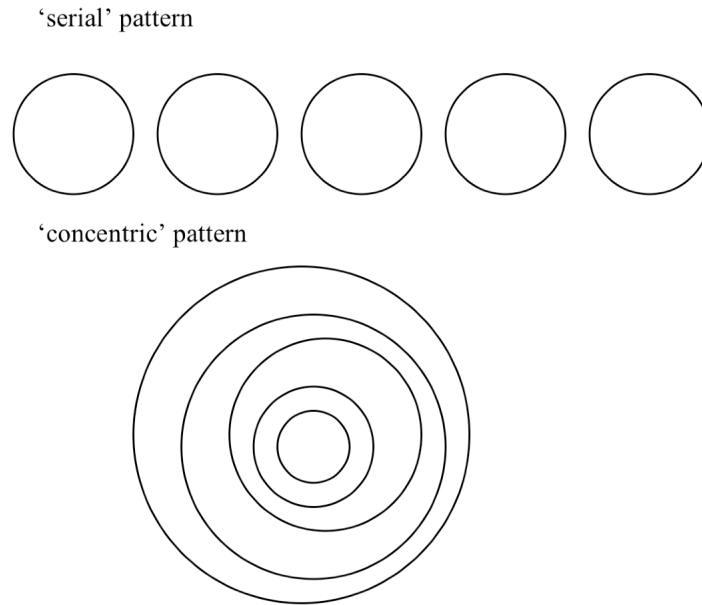


Figure 4.8. Primitive Bubble Arrangements

Mathematics is concerned with the exploration of the general properties of formal systems. As things stand, my only way of representing my system of bubbles involves the use of diagrams. These are limiting because each diagram represents only a topologically equivalent set of bubble arrangements. I need a notation that will allow me to develop an algebra, to represent general states. I shall do this by using the variable, x , to represent 'bubble' and defining two operations on the basis of the two moves that are to be used in arranging bubbles, thus:

1. $x \oplus x$ means place one bubble outside but not containing another bubble.
2. $x \otimes x$ means place one bubble outside and containing another bubble (or bubbles).²³

The 'serial' and 'concentric' patterns in Figure 4.8 may now be represented as

$$x \oplus x \oplus x \oplus x \oplus x \text{ or } 5x \text{ and} \\ x \otimes x \otimes x \otimes x \otimes x \text{ or } x^5 \text{ respectively.}$$

²³ I have defined this operation as placing one bubble *outside* rather than *inside* another bubble because this enables me to 'enclose' several bubbles in another—I cannot, unambiguously, place one bubble inside a bubble arrangement such as that in the lower righthand of Figure 4.6 or the arrangement in Figure 4.9, but I can uniquely specify the arrangement whereby a bubble is placed outside and containing either arrangement, or outside and not containing either arrangement.

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This notation gives me a way of representing any legitimate pattern, however complicated. Thus the pattern in Figure 4.9 is rendered as

$$4x \oplus 2x^2 \oplus x^3 \oplus x^4$$

Someone well-drilled in school mathematics may be inclined to rush headlong into factorisation and presume an equivalence between this expression and something like

$$x(4 \oplus 2x \oplus x^2 \oplus x^3).$$

However, this would be an error, both because the order in which we perform the operations matters and the number, 4, on its own, has no value in this system.

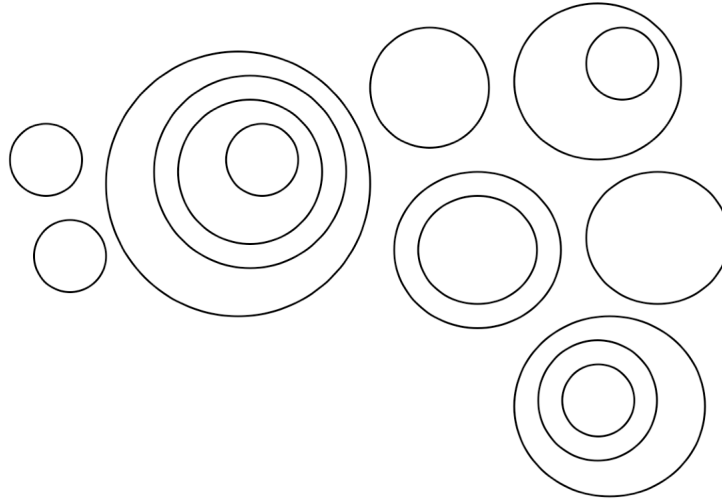


Figure 4.9. A Complex Bubble Arrangement

I shall not take this ‘investigation’ further, here, as I have done enough to be able to illustrate the points that I want to make. Essentially, the ‘investigative’ approach to school mathematics introduces new areas for low discursive saturation strategies and tactics—skills, tricks—in a discipline that is apparently dominated by high discursive saturation strategies. Indeed, a general preference for the latter is illustrated by my rationalising of my move from the diagrammatic (low discursive saturation) to the algebraic (high discursive saturation) representation of my bubbles problem. Here, the principles of deployment of heuristics are, to recall Bernstein’s language, far more context dependent than is the case with other areas of mathematical practice. I have suggested above that my recruitment of topological principles in ‘understanding my problem’ suggests that that aspect of my ‘investigation’ is more of a skill than a trick, associating mathematics with what Bernstein describes as a ‘craft’ (see Figure 4.3). However, insofar as I have

chosen to develop a notation and (potentially, at least) explore the system in that way, I am perhaps deviating from the approach that one finds more commonly adopted with ‘investigations’, that is to count, in this case, the number of patterns for each number of bubbles—see the discussion on the NRIC site at <http://nrich.maths.org/askedNRICH/edited/503.html>, for example. In this sense, my strategy might be considered more of a trick and associated more with Bernstein’s ‘horizontal discourse’. Certainly, the particular form of notation that I have deployed is (as far as I know) not entirely standard in work in topology and might be considered ideolectical.

The boards on the NRIC site and on the multitude of other websites concerned with school mathematics as well as conventional journals written for and by teachers and mathematics educators, such as *Mathematics Teaching* and *Mathematics in School*, constitute public forums in which strategies and tactics such as those deployed here are shared and discussed. Many tactics generated in classrooms may appear once at most. Others may develop a higher level of institutionalisation and eventually find their way into school mathematical discourse. What is clearly the case is that it is not appropriate to identify school mathematics or, as I have illustrated earlier, educational research methods, as unitary in the sense of either horizontal or hierarchical knowledge structures, or even vertical or horizontal discourses.

The fetishising of knowledge—or indeed of discourse—as an entity or entities that have an existence that is in some sense independent of the actual practices with which it or they are being associated may be a helpful initial organising move in thinking about cultural regularity. It seems to me, however, to be a very unhelpful move if we have any interest in engaging with the empirical. Bernstein takes possession of the empirical only to enable him to ignore its voice. Similar strategies have been adopted by some (though by no means all) other sociologists of knowledge, see, for example, Beck & Young, 2005; Maton, 2000; Moore & Muller, 1999, 2002; Moore & Young, 2001; some of this work is discussed in some detail in Chapter 8. Bernstein’s structure in Figure 4.3 is necrotising in its anti-empirical pigeonholing. My schema in Figure 4.5—ironically resembling far more closely an array of pigeonholes in a school staffroom—provides a language that originates in a theoretical-empirical dialogue, that has subsequently been rendered analytically coherent, and that is now available for organising the empirical from the particular perspective provided by two polarised concepts—*level of institutionalisation* and *discursive saturation*. Such organisation enables the regionalisation of an empirical practice, it renders visible trajectories and, potentially, mechanisms of differentiation and, ultimately social and cultural production and reproduction, that is, the formation, maintenance and destabilising of the alliances and oppositions that constitute the social as emergent upon autopoietic cultural action. In terms of its potential in informing pedagogy, the schema—and the others that I and colleagues have generated—provides a basis for exploring, and potentially engineering, the alignment between proposed pedagogic action and the competences and performances that are to be fostered. The

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fetishising of knowledge can never achieve this precisely because the very act silences both teacher and student.

CONCLUSION (THOUGH NOT YET AN ARRIVAL)

At the start of this essay I pointed out that Bernstein had accused his critics, Harker and May of misrecognition. Doubtless he would have accused this essay—at least in large part—of much the same thing. Here, I have chosen to describe my reading of Bernstein as treachery and as heresy. My sociology arises from a *deliberate* misreading of Bernstein; deliberate, in the sense that I am fully aware of the radical irreconcilability of our respective general approaches. Bernstein's existential experience stands—it seems to me—opposed to his mode of objectification of the sociocultural, establishing him inside trying to get out. My objectivist experience inaugurates the opposite kind of lack: I am outside trying to get in. Had Bernstein been less concerned with policing his academic legacy (always a lost cause) and more concerned with simply doing his sociology, he might have referred to Harker's and May's misrecognition as a recontextualisation. But, to do justice to such a classification, he would have had to engage in some sociological analysis of their empirical text; the rhetorical approach would not have served well such a purpose.

Recontextualisation is the central theme of this chapter. The schema established by classification and framing is viable only to the extent that the sociocultural chronotope is recontextualised as consisting of mutually independent synchronic and diachronic planes, or where contiguous levels of analysis are recontextualised through their collapse onto a single level. My recontextualising of Bernstein's schema generates a single category, level of institutionalisation, that points to emergent structure to be recruited by autopoietic action and not subjacent structure that is generative of it. My recontextualising of Bernstein's recontextualisation results in a general method—*constructive description*—that pushes towards the necessity of an inaugural constitution of and subsequent dialogue between the theoretical and the empirical. Here, crucially, the dialogue must be such as to permit the theoretical to learn and the empirical to be organised (and, indeed, reorganised). This is the outcome of my recontextualisation of the major strand in Bernstein's corpus that begins with restricted and elaborated speech codes and ends with vertical and horizontal discourses and hierarchical and horizontal knowledge structures. From this strand, as well, I have generated a second key category in my own work, that of *discursive saturation*. The recontextualisings thus establish my own analytic space that, as a component of my general organisational language, stands in dialogic relation to, in this chapter, research education and school mathematics, which have themselves become the objects of analytic recontextualisation. It may (or may not) be that the I/DS, practical strategic space has reached its terminal point of development. The dialogue, though, is present in an openness of the language as a whole to new structure—new categories and new analytic spaces—that re-contextualises that which precedes it. The productivity of all of this engagement lies in the facility of the new language to stimulate new

insights into the modes of formation, maintenance and destabilising—which is to say, the emergence—of alliances and oppositions.

We might speculate that all treachery entails the resistance of a becoming subjectivity to the restriction to being imposed in the very pedagogic relations that inaugurated that subjectivity. I am in absolutely no doubt at all that none of my work would have been possible without the work and indeed pedagogic action of Basil Bernstein. But I have had other teachers as well—many of whom I will never meet, many of whom are misread in this book, and doubtless, there are many more of whom I remain regretfully unaware or forgetful. Basil could have taken pride in his own achievements and in the legacy of work that has been and is to be accomplished by those inspired by him. But the proudest claim that he might have made in respect of at least one of these, is that he is not a Bernsteinian.