

# Authority and Interaction in Formal and Informal Educational Settings

Paul Dowling

## ***Formal settings***

### ***School mathematics***

We should think about the play of authority strategies in formal and informal educational settings. In particular, we need to explore two kinds of *alliance*. *Pedagogic* alliances locate control of the principles of evaluation of performances with an authorial position such as the teacher. *Exchange* alliances locate this control with an audience position, such as the student. We might think of conventional pedagogic alliance as based on what I refer to (developing Max Weber) as *traditional* authority strategies. Here, there is closure on what constitutes privileged practice and on the author of privileged performances, both the *who* and the *what* are closed in the regulation of *who* can say/do *what*. Where such an alliance is constituted, then interaction proceeds as *equilibration*—where we have an alliance of equals in respect of the privileged practice—or as *hegemony*—where one practice/author is dominant. The former situation is collaborative learning; the latter is conventional teaching. As I argued in ‘Quixote’s Science’, the strong, traditional authority of mathematics teachers in the UK in the 1960s resulted in the recontextualising of the modern mathematics initiative. This initiative established set theory as the basis for the whole of the school mathematics curriculum according to the bourbakiist principle of ‘mother structures’ in mathematics. This would have constructed school mathematics as a principled, *integrated code* (Bernstein). However, in the secondary school, set theory ended up as simply an additional topic on what was, in general, more of a *collection code*. In the primary school, set theory became a pedagogic resource that involved the use of hoops and chalk circles and other representations of Venn diagrams as additions to the collection of pedagogic activities that constituted the primary curriculum.

Mathematics teaching in the UK in the 1970s faced a crisis with the serious shortage of mathematically qualified mathematics teachers. One response to this was the SMILE (Secondary Mathematics Individualised Learning Experiment/Experience). Here, the mathematics curriculum was represented on some two thousand cards that were to be completed by students one-at-a-time and in no specified order. This removed demands on the mathematical expertise of the teacher, who was placed more in the position of administrator of the curriculum. To this extent, the category of author/teacher was open—any teacher, whether or not mathematically qualified, could, in principle, take over the class. Thus, the authority of the pedagogic alliance was vested in the closure of the category of *practice*, that is, the activities incorporated in the cards. This is *bureaucratic* authority. Alliances based on bureaucratic authority remain

*pedagogic* because control of the principles of evaluation of performances still resides in authorial position. Here, however, this position is open rather than closed in the sense that and insofar as it can be any teacher.

Clearly, in empirical contexts, these pedagogic alliances may be destabilised. Examples of this would include oppositional performances by students such as disruptive behaviour. Destabilisation may also result, or be feared, from situations in which students possess greater expertise than the teacher, for example, in the use of ICT. Restabilising responses from the teacher might include establishing a split in the practice between, for example, *instructional* and *regulative* discourses (cf Bernstein). A challenge to the teacher's authority can then be deflected to the regulative discourse and disciplinary action taken, leaving the authority structure of the instructional discourse unaffected. Of course, in the bureaucratic alliance of the SMILE classroom as I have described it, the teacher's authority is more or less confined to the regulative discourse so that further splitting might be difficult. In the case of student precocity in ICT skills, a split might be made between mathematical and technological discourses. The teacher may maintain traditional authority in mathematics, whilst bowing to the authority of the student(s) in respect of technology; this would have the added advantage of making the students available as a potential pool of teaching assistants in their own classroom.

### ***Informal settings***

#### ***The production and use of textbooks***

These *pedagogic alliances* are, in substantial part, sustained by the official institutionalisation of, in this case, mathematical and school practices. The question is, then, what happens in informal settings, where official institutionalisation is absent? We shall consider a number of examples. Firstly, we shall consider academic work in the construction of an original performance, that is a performance that is, in some respect, original to its author if not more generally. The first case is that of my own authoring of materials for a teaching module for an online Master of Research degree (OMRes). Having published textbooks and taught research methods for some years, I was able to write much of the pedagogic material 'from the top' with occasional checking of details (for example, for the bibliography) mainly using my own database and other resources on my computer together with internet sources, where necessary. However, I wanted to include a brief section on the philosophical 'meta-theory', 'critical realism'. Now whilst I was familiar with this discourse in general terms, I am not a philosopher and have never been in the position of having to mediate it to anyone else. For my purposes, I needed to be able to produce a statement about critical realism that would stand up to the scrutiny of academic colleagues far more familiar with it than myself.

The conventional approach to this problem would have been, perhaps, to form a pedagogic alliance, either with an individual or with a book on the subject;

perhaps one of Roy Bhaskar's books. Since I was intending, first, to relay this position rather than engage with it or exploit it for ideas, I would need to regard the book as a pedagogic text with a traditionally authorised authorial voice. Such an approach is clearly expensive in terms of time; I would have to read and understand a very substantial work in order to be sure of the legitimacy of the very short section that I needed to write. I would have to read all of the book, because it would be only at that point that I could say to myself that I had explored everything in it that might have a bearing on my section. Because of this, I would most likely be limited to a single source, just as school mathematics students tend to be limited to the voice of a single teacher and a single textbook. However, because critical realism is a well-established (which is not to say entirely monovocal) position, it is very commonly relayed at precisely the kind of level that I was aiming at and many of these relaying texts are available as internet resources and can be located using a simple search strategy. Such a strategy is likely to turn up a wide variety of resources, not all of which will be relevant. These will include bookshop advertisements, bibliographies and a very wide range of academic papers written by students and faculty as well as pedagogic relaying texts. There is clearly a problem over the legitimacy of these resources; which should I place faith in. This is especially difficult as the standing of the author it is often unclear, the more so where the resources are comparatively short pedagogic relaying texts rather than peer-reviewed papers. Since the latter are less readily accessible, often requiring a subscription to the relevant journal, and since they may presume rather than relay the kind of knowledge that one may be attempting to access, the potentially less reliable, short pedagogic relaying texts are likely to be of greater use-value. Because of their lack of necessary authority, the audience rather than the author may lay claim to control of the principles evaluation of any given text. But, of course, the audience is not in possession of the competence necessary to exact this control, because this is precisely the competence that they are attempting to gain. Clearly, relying on just one text is not appropriate now. Rather, my strategy was to continue to read these texts until I had reached a stable position on critical realism. That is, I stopped reading at the point when I felt that I was in a position to evaluate each new text validly and reliably; when, in other words, I had reached a position of equilibrium, in a sense similar to that of Piaget.

The two strategies that I have introduced—reading a big book on critical realism and reading multiple small pedagogic relaying texts on critical realism—involve, respectively, *hegemony* and *equilibration*. The mode of alliance between myself and the authorial voice of the text is, respectively, *pedagogic* and *exchange*. My own text, as the performance of a teacher on an award-bearing course, would be constructed, at least by me and in terms the relation between myself as its author and my students as audience, as a *pedagogic text*, placing me in the position of control over the principles of its interpretation. Contrast this with the position of one of my students attempting to construct a piece of coursework on this theme. They might, of course, attempt the same strategy, but there is a need for some modification. Specifically, their text is not to be constituted as a pedagogic text, but, in at least some respects, as an exchange text, placing control over the

principles of its evaluation with me as audience. The student will know that one of these principles entails that they must include citations from a legitimate bibliography. The students, I hope, will know that they will not be able to terminate their reading simply upon reaching a state of equilibration. Rather, they must go on to read items that can be constituted as legitimate bibliographical entries, which is to say, academic books and journal articles. Nevertheless, in my own experience, in my experience, the 'exchange' route to legitimate performance is rather more efficient in terms of time and possibly more effective in terms of the level of competence gained than reliance on the 'pedagogic' route of the textbook or monograph. The latter will always be necessary in respect of innovation; we must consider the extent to and point at which the availability of multiple pedagogic relaying texts and the possibility of exchange mode renders the textbook redundant.

In my experience of teaching on masters and doctoral programmes, I find the pedagogic mode to be very widely adopted by students. This is evident, for example, in the close following of single sources in their representation of facets of the discourse. This, of course, is another disadvantage of the pedagogic/hegemonic mode: it apprentices the audience into the dominant text rather than into the more general principles of evaluation of performances. The exchange/equilibration mode, by contrast, establishes these principles in advance of engagement with more substantial works, thus facilitating a greater potential for originality. Where I have found the exchange/equilibration mode to become operational is in CMC programmes, where the strong authorial presence of the tutor is backgrounded. Here, equilibration has operated not only on an individual basis (an individual confronting many sources), but also in terms of interaction between a group of students who are, in formal terms, equals within the discourse that they are to acquire.

### ***Learning fashion***

Dressing in a way that is appropriate in terms of fashion presents problems insofar as individuals do not generally have access to pedagogic relaying texts telling them how to dress and groom. Thus the acquisition of fashion principles is informal and is generally contextualised within exchange mode. The individual must make selections from those resources that they have available. This always involves a recontextualisation in the move from what we might call the *iconic world* in which resources become available, to the *real world* that is constituted by the body and sociocultural settings of the individual. There are thus two three potential locations for authority: the iconic world; the individual making the selection; and the sociocultural setting. The move from the iconic to the real world, therefore, always entails a risk. For example, in surveying the iconic world of Hollywood stars in exchange mode, I may feel quite secure in my judgement that Brad Pitt looks very good with a particular hairstyle. Simply adopting the style, as is, itself presents problems insofar as my hair has different characteristics etc and the style may not take so easily (a wig, perhaps). But there is the further problem that it will be me and not Brad Pitt sporting this

hairstyle in real world contexts in which I will generally feel myself to be under scrutiny in exchange mode. We might imagine that real fashion innovators will move from exchange mode in making their selections (iconic world) to pedagogic mode in presenting them publicly (real world), thus never losing a sense of control over the principles of evaluation of performances. Now, the questions to be put empirically in respect of fashion choices are: what are the grounds that allow individuals to locate pedagogic authority within the iconic world; what is the nature of their interaction with the iconic world—hegemony or exchange—and what motivates the shift between these modes (for example, in terms of strong personal identity that might also be tied up with perceptions of body shape etc); where is authority located in the real world; what is it that enables real fashion innovators (which is to say, innovators in their real world) to sustain their pedagogic authority? Clearly, before a certain level of maturity, all individuals effectively (though not, of course, self-consciously) delegate fashion decisions to carers. There is some evidence to suggest that some individuals maintain a degree of, now explicit, delegation of fashion decisions to others beyond early childhood. On the face of it, this would seem to involve a splitting of identity into that which may be regulated and that which may not. This resonates somewhat with the splitting of curricular discourse into the instructional and the regulative, or into the mathematical and the technological discussed earlier.

### ***Learning video games***

Here, I'm not going to write any kind of introduction, but simply refer to one illustration from Colin's research. This involved an individual who was dominant in terms of his performances on a particular game. This dominance is given in terms of the score, which is an objective measure, so this is a bureaucratic authority; whoever has the highest score is the dominant. This individual had been able to shape the rules of the game by outlawing particular tactics that are perfectly legitimate in terms of the official rules. However, he was unable to sustain this regime and other players began to engage in the 'outlawed' tactics. This could potentially have dislodged the dominant player from his position. His response was to re-conceptualise his own rules allowing him to continue to compete on the same terms as the other players and to retain his position of bureaucratic dominance.