BEYOND A TECHNOLOGY OF SALVATION

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Curriculum Visions
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The origins of this volume were not auspicious. It started life ten years before it was published. It was originally envisaged as an international handbook. And it went through three publishers before it was accepted for the *Counterpoints* series: 'studies in the postmodern theory of education'. In short, the editors, reduced from three to two, had difficulty in seeing the way ahead for *Curriculum Visions.* I have no idea what problems beset the editorial team but I surmise that their difficulties stemmed from two sources: the state of the curriculum field and the fact that their concern for curriculum vision was, as it were, beyond the curriculum field. In this review I will expand these arguments.

Handbooks are backward-looking texts, compilations of received wisdom. The 1990s, however, were not the time to compile a handbook. The earthquakes that, literally, accompanied the original planning meeting alongside the 1992 American Educational Research Association (AERA) conference in San Francisco were, in a different form, also being felt throughout educational research. The descriptors 'post-structuralism', 'discourse analysis' and 'post-modernism' had reached such a critical mass of support that, from within, they began to undermine any attempt to summarise the lessons of the modernist project in education. When asked 'what are you doing?' researchers either had to deny or ignore the impact of such ideas or, if accepting them, find new ways to justify their view of research.

To understand the historical significance of *Curriculum Visions*, it is necessary to appreciate the substance of this internalist critique against structuralism, representationalism and modernism. Structuralism is the idea that history can be explained in terms of specific 'structures' - laws or rules - that, somehow, envelop events by governing the behaviour of that system. Humanism, Calvinism, capitalism and progressivism are such structures. Social phenomena are explained by reference to background 'causes' that lie outside these events.

The appearance of the word curriculum in the seventeenth century provides a good example. The first cited use in the *Oxford English Dictionary* are the regulations of Glasgow University that were published in 1633. But why did they appear in Glasgow at that time? How did a classical idea - *curriculum vitae* (course of life) - become transposed into the educational sphere? How, that is, did 'a course of life' became 'a course of schooling'? It is reasonable, to assume that the curriculum idea arose from the social-historical 'text' (or texture) of Glasgow university - the complex interweaving of the past and the present.

But what was the texture of Glasgow University at that time? To answer this question via a micro-analysis of that institution would consume much time. But there is a short cut, based on the question what was happening in Glasgow at that time? The answer is that the warp and weft of Glasgow University was shot through with Calvinist assumptions about maintaining social order through the rationalisation of upbringing and schooling. This last perspective is

structuralist because it is based on an appeal to structural forces, a *dues ex machina* outside the woven fabric of life at Glasgow University.

Post-structuralism holds that such reference to outside factors is unscientific and that, instead, social analysts must restrict themselves to the data - or texts - that are at hand. This last position, captured in Derrida's limpid formulation 'there is nothing outside the text', also raises the problem: what is a text?. Sometimes, the word text is used metaphorically, exploiting the link between the words text and texture. Thus the text of Glasgow University comprises the fabric of institutional life, its practices, regulations, boundaries, distinctions and differences.

Text, however, can also be used in the conventional sense: as a set of words that stands for - or represent - something else. Indeed, much of the history of science of the twentieth century is a history of attempts - notably by the logical positivists in the 1920s - to find words that unambiguously fit - or represent - things. Such attempts are successful if the meaning of a word is believed to be restricted to that particular word. Thus, logical positivists sought, as it were, to tell it like it is. The alternative view is that words have multiple meanings, depending upon their context. Accordingly, verbal constructions are always ambiguous. A notorious text that exploits this issue is based on the question that a one-time student of Stanley Fish asked the tutor of her next course: 'Is there a text in this class' (Fish, 1980). This latter view poses the representation problem in science – that there is always slippage - or 'ambiguity of inference' (to use Donald Campbell's felicitous phrase, 1988, p. 191) - between data and their referents. 'The map is never the same as the terrain' is another apt formulation of the same problem.Thus, if the representation problem is accepted as intrinsic to modern science, different interpretations may rest upon different views - or paradigms – of knowledge. What scientists see and report is always contingent upon their accumulated experience and its impact upon the way they look at the world.

Criticism of structuralism's appeal to outside facts, combined with the representation problem, has undermined the optimism of modern science. Utopian views about the human mastery of nature and the resultant alliance of science, technology and progress have been challenged by a dystopic – or post-modern – vision of science and society.

The net result has been that, during the 1980s and 1990s, educational research faced - and still faces - deep divisions over what counts as legitimate science. At the risk of oversimplification, positivist and post-positivist views on the production, use and value of scientific knowledge are contested. Moreover, this struggle over knowledge is also a struggle for power over resources. Different views of science (e.g. evidence-based, qualitative, quantitative) challenge each other over the most appropriate benchmarks to be used in judging the scientific merit of research proposals. The January/February issue of *Educational Researcher*, the newsletter of the American Educational Research Association, provides an illustration. Several proponents of 'research as design' as 'an emerging paradigm for educational inquiry' (Design-based Research Collective, 2003) are challenged by another group of educationists seeking to uphold the view that their 'principles for scientific research' should also 'apply to design studies' (Shavelson et. al, 2003, p. 27).

It should be no surprise, then, that the form of *Curriculum Visions* reflects the conjuncture described above. Indeed it starts in the eye of the storm. The opening section - written by Noel Gough - is headed by two epigraphs. The first quotation is from William Blake's *London* (1794). where the author sees 'marks of weakness, marks of woe' in every face and hears 'mind-forg'd manacles' in every voice along the Thames. The second quotation is the opening section of Allen Ginsburg's *Howl* (1956): 'I saw the best minds of my generation destroyed by madness' as they 'passed through universities with radiant cool eyes hallucinating'.

In fact, Gough presents these by playing on the difference between 'vision' and 'visionary'. Blake and Ginsburg have a dystopic vision of the past yet, through this vision, they also offer a vision - or visionary view - of the future. In this case, too, such epigraphs can be read as a stark commentary not only on the social and historical role of curriculum theorising and practice but also on the need for revisioning. With the help of metaphors, similes and analogies drawn from science fiction, literary studies, theology, psychoanalysis, ecology, post-colonialism and the history of science, contributors to *Curriculum Visions* set out to re-vision the past, to lay to rest its ghosts and, in the process, to promote new curriculum visions for the future.

In the process, they do not succumb to intellectual angst, analogous to the despair of Blake and Ginsburg, that sometimes accompany discussions of post-modernism. They acknowledge the contributions of Cherryholmes, Pinar and Britzman (who also appear in this volume), yet they strike out for the future. To do so, they find inspiration in the advances made by evolutionary theory since Darwin published *The Origin of Species* in 1859. In particular they draw extensively from recent thinking about evolution, complexity and systemic behaviour (also discussed earlier in Doll, 1993).

Such thinking can be described as Darwinian rather than Newtonian because it is based on the behaviour of living systems rather than atoms. It is post-structuralist because it is an attempt to move scientific thought away from the structures celebrated by pioneers of modernism like Descartes and Newton. One of the contributors to *Curriculum Visions*, M. Jayne Fleener, neatly characterises this change of perspective. An old modernist science based on 'certainty, predictability and control' that fostered 'uniformity, permanence and stability' is rejected in favour of a newer (post-modern?) science based on 'process, change and context' (p. 157).

Such evolutionary views, however, have not emerged merely at the beginning of the twenty-first century. Here are two examples drawn from the past 50 years. 'Experimental and quasi-experimental designs for research on teaching' (1963) written by Donald T. Campbell with the statistical assistance of Julian Stanley is a clear example of evolutionary thinking. Sometimes regarded as a pæon to experimental design, and serving as an inspiration for the eponymous 'Campbell collaboration' over evidence-based research, it is a clear break with the logical-positivist assumptions that dominated US and UK research after the second World War. It states, for instance, that it is '*not* a chapter on experimental design in the Fisher…tradition' (1963, p. 171) It constituted a clear break with experimental design.

Campbell accepted that experimentation in the social and historical sciences could not be separated from contextual effects, including social and ethical interference. In the 1963 paper, these were described as 'factors jeopardizing internal and external validity' (1963, p. 175), but became more commonly known as 'threats to validity'. Moreover, Campbell and Stanley's paper is a telling demonstration of how 'ambiguity of inference' (Campbell, 1988, p. 191) confounds the conduct of policy-related research.

The second example of evolutionary thinking relates to the problem of intermediate phenomena. This problem was identified as relevant to educational and psychological research by Lee J. Cronbach in the 1970s. His presidential address to the American Psychological Association in 1957 had expressed a clear modernist rationale:

> Our job is to invent constructs and to form a network of laws which permits prediction. From observations we must infer a psychological description of the situation and of the present state of the organism. Our laws should permit us to predict, from the situation, the behaviour of [the] organism in context. (Cronbach, 1957, p. 681-682).

By the 1970s, however, Cronbach took a different view when he addressed the American Psychological Association in response to an award for his 'distinguished scientific contribution' to psychology. Cronbach reported that, in the intervening decades, he had encountered 'inconsistencies' that led him to confess 'the line of investigation I advocated in 1957 no longer seems sufficient' (1975, p. 119). Cronbach's unease arose from the same kind of interpretive problems face by Campbell and Stanley; namely, external difficulties that trouble open systems. Investigators, he suggested, should eschew the erection of 'theoretical palaces':

> The goal of our work [he continued…] is not to amass generalisations atop which a theoretical tower can someday be erected. The special task of the social scientist in each generation is to pin down the contemporary facts. Beyond that, he [sic] shares with the humanistic scholar and the artist in the effort to gain insight into contemporary relationships, and to realign the culture's view of man with present realities. (Cronbach, 1975, p.126).

Campbell and Cronbach's views about experimental systems and their relationship to future practice is further explored in Niklas Luhmann's *Social Systems* (1995). Luhmann's contribution embraces the problems raised by Campbell and Cronbach. He indicates why it is no longer reasonable to represent social systems using billiard balls on a billiard table. First, the billiard balls may interact with the boundaries of the table; and secondly, the billiard balls may interact with each other. In both cases, such interactions create new phenomena that disrupt the predicted history of the system. The first of these problems – balls on walls - is captured by a key notion in ecology, also identified by John Dewey, that 'an organism does not live in an environment, it leave by means of an environment' (quoted by Fleener, p. 153). Although he retained the billiard ball imagery throughout, Cronbach recognised that the interaction of variables - balls on balls - could create side-effects which re-directed the subsequent behaviour of the initial variables.

Overall, then, mechanical issues of uniformity, performance and stability should, in the case of chemical, biological and human systems, be re-visioned in terms of process, change and context. Insofar as control cannot be guaranteed (because systems may not behave like billiard tables), predictability and certainty tumble off the gold standard as authoritative benchmarks for educational research.

So, you might ask, where does the curriculum field fit into this picture? The historical parallel is that curriculum thinking was nurtured, in the sixteenth century, as an element in the *modernist* project (then more usually described in terms of *humanism).* It built on the idea that the human species could steer its own destiny and, thereby, rescue itself from the biblical 'Fall' engineered around the apple tree in the Garden of Eden. By studying the workings of the natural world, philosophers could find the keys to practical knowledge; social engineers could use such knowledge in the design of technologies; and, in turn, these technologies (including schooling) would guarantee the salvation of humanity. Modernism, therefore, was entranced by reason's dream of 'certainty, predictability and control'. It was heavily influenced by Francis Bacon's assumption that nature was the source of eternal truths about the world, Descartes belief in the infallibility of method, Newton's ideas about law-like causality and, later, Laplace's Enlightenment claim that, if all the relevant variables could be included in the equation, the future was open to prediction.

Sixteenth-century curriculum thinking envisaged schooling in such terms. Under the influence of humanism, education spread its goals to include more and more of humanity as candidates for salvation. Schools were organised to meet this instrumental goal - articulated, for instance, by the Lutheran Martin Luther, the Calvinist John Calvin, or the Roman Catholic

(and Jesuit) Ignatius of Loyola. Social aspirations, justified in theological terms, were translated into the view that schools should purvey instruction, that such instruction should be organised as a technology (cf. school discipline), and that such a discipline of pre-ordained knowledge could be delivered through the hands of teachers into the minds (or souls) of learners.

The details of this process are beyond the scope of this review. But its highpoint came as the technology, which came to be known as didactics, was exhaustively adumbrated in Jan Amos Comenius' *Didacta magna* (Great Didactic), a text which appeared in Czech and Latin in the middle of the seventeenth century. The *Didactica magna* maintained, taking its cue from the Bible, that it, too, could be 'all things to all men'. (1) Using an early mass production metaphor, successful learners could be printed out or stamped out according to a pre-ordained didactic design.

In fact, a different metaphor was in use by the end of the fifteenth century. The new teaching meant that knowledge could be 'delivered' into the minds of young learners. This metaphor fitted an early capitalist sense of commodity delivery that served consumers (e.g. parents); but it also had a theological sense, in that schooling was an instrument of spiritual deliverance, delivering young people into the hands of the Lord. This, then, was the beginnings of modernism in schooling. Despite confessional differences, it became imbued with a modernist sense of being the 'one best system' (cf. Tyack, 1974). Indeed, subsequent restatements of this deliverance ideal, like the Tyler rationale (Tyler, 1949), should be seen, therefore, as little more than the tweaking of a much older ideal (discussed by Triche & McKnight, forthcoming) - that a corpus of approved knowledge could be successfully delivered via close attention to method or didactics.

The sense of method as mind-forg'd manacles has been noted from the earliest curriculum texts. Walter Ong's investigation of the sixteenth-century struggle between medieval and Renaissance educational thought, *Ramus, Method and the Decay of Dialogue* (1958), includes a chapter on these texts. It is titled: 'The Pedagogical Juggernaut'. Ong's choice of metaphor was apt. Like its Sanskrit archetype, the methodised and, therefore, teacher-proof instructional technology developed in the sixteenth century was, ultimately, an educational vehicle that would mow down the worshippers who threw themselves admiringly under its wheels.

Ong's disenchantment - his belief that the rise of method fostered the decay of dialogue in education - has been questioned. Indeed, the functional relationship between technology and outcome is probably more complex (see, for instance, the excellent analysis of Grint & Woolgar, 1997). Nevertheless, Ong's review of educational innovation in the sixteenth century provides a valuable backdrop to *Curriculum Visions.* It highlights a major development in the history of European and North American schooling - the dream of an educational technology that would guarantee certainty and control; and it also challenges, like the post-essentialist analysis of Grint and Woolgar, the way modernist educationists have worshipped the spectre of educational technology and its relationship to the efficient delivery of products and the human-relations deliverance of its workforce.

Doll's introductory essay, 'ghosts and the curriculum' takes up this challenge. His thesis is that 'we need to reconceptualize the nature of curriculum' (p. 23). To do so, he focuses on John Dewey and Alfred North Whitehead's conception of the unity of means and ends in education. In Dewey's case, voiced in *The Child and the Curriculum,* the delivery process is the end in view. Education should start not with the structure of knowledge but with the growing child. Thus, in the latter half of the nineteenth century, curriculum thinking became coloured by ideas about child development and, as important, about the transformative relationship between children and their surroundings.

Doll cites Whitehead for the latter's claim, made in the 1920s, that the nature of things is not found in atoms but, rather, in the relationships of change and stability that arise within the unity of a system. Doll elaborates this point - indicating its affinity with post-structuralism - and concludes with the idea that the transformative relationship between children and their surroundings is 'emergent'.

> In terms of control, complex systems have relations built into them. These systems need no *deus ex machina*, for they are not mechanistic and have no outside forces governing them. In Dewey's terms, they have no preset, external ends; yet, as Whitehead says, it is in their 'nature' to be unified….There is, then - in the dynamism of action, reaction and interaction - a sense of direction. But this direction is internally developed not externally imposed. In short, it emerges. (pp. 38-39).

Doll recognises the difference between a curriculum that is imposed and one that is emergent and, for the historical reasons already cited, he regards the former as modern, and the latter as post-modern (p. 39). Yet, he does not fall into the dualistic trap of seeing them as opposites. Rather, they are complementary. This last idea is paramount to *Curriculum Visions.* To go back to the formulations of the sixteenth and seventeenth centuries, curriculum is as much about knowing as it is about knowledge; it is about beating as well as following a path; and it is a theory of experience as much a theory of delivery. 'Nature', Doll suggests dialectically, is 'both spontaneous and structured, flexible *and* stable, chaotic *and* ordered' (p. 42). And, in a telling citation from Dewey, he links means and ends, thought and activity, in the idea that 'ends' are 'not strictly speaking ends or termini of action at all' but 'terminals of deliberation, and so turning points in activity' (p. 39).

Finally, Doll launches his visioning by reference to a series of thinking devices which he calls the 5 Cs: curriculum as *currere*, complexity, cosmology, conversation and community. *Currere* (Latin: to run) is the notion that education should be running rather than following a course. It highlights the 'personal experience of the individual (the runner)', a shift which means 'seeing curriculum as a process or method of "negotiating passages" between ourselves and the text, between ourselves and the students and between all three' (pp. 43-5).

Curriculum as complexity implies that curriculum theory must take its leave of linear, billiard ball views of rationality. In turn, it must incorporate them into explanatory models that assume the possibility of non-linear interactions which foster 'new and more complex levels of nature, life [and] organisation' (p. 46). Curriculum as cosmology is a function of the arguments made above; namely that curriculum needs to be located in a post-modern worldview based not on 'inert ideas' (Whitehead's comment on the curricula of his era) but on a curriculum which 'combines the rigorousness of *science,* with the imagination of a *story,* with the vitality and creativity of *spirit'* (p. 48).

Curriculum as conversation is to regard educational practices as a constant questioning of received knowledge and inherited wisdom. It assumes that education has a critical purpose - the posing of 'why' as well as 'how' questions. Indeed, it gives priority to this sense of conversation as a democratic dialogue which respects the 'otherness' of each other, as well as the 'otherness' of the texts studied and the ways of thinking inscribed in them.

Doll continues:

> Towards this (integrated yet multifaceted) end, we might encourage teachers to respect the human otherness of their students (no matter the age, gender, race, religion) and for the teachers to encourage students to have 'conversations' with language arts, mathematics, science and social science texts and the contents

therein. (p. 50)

Finally, Doll brings curriculum as community into the picture as its 'organising glue' (a concept taken from Gregory Bateson). Curriculum as community not only holds the other four senses of curriculum together but serves as a bulwark against the individualist tendencies of solipsism and relativism. Humans are social beings who, as the Russian language scholar Mikhail Bakhtin put it, live in a world of other's words. Following others, like Bateson, Doll adds that a human community cannot be disengaged from larger 'ecological and cosmological' communities, an extension of 'community beyond self' (pp. 51-52). He concludes, therefore, with a typically enigmatic (i.e. underdeveloped) comment - reminiscent of Marshall McLuhan - about the ultimate system: 'Truly our future human existence as well as the existence of generations to follow, will depend on our having a *new alliance with nature´* (p. 52).

Doll's view of nature may be all-embracing but I feel it misses an important dimension of modernist curriculum thinking, its attention to the role of culture rather than nature. Since the sixteenth century, curriculum practice has also part of nation-building. Even if heavenly salvation was the ultimate goal, secular criteria (e.g. the ability to a home language) paved each learner's pathway. In time, these criteria shaped curricula that, among other things, gave school systems a national form and identity. Fortunately, however, Doll's deficit is confronted by the colonial (or are they post-colonial?) experiences of his Australian co-editor.

By the end of the second millennium, Gough argues, national curricula had begun to unravel, either through the penetration of multiculturalist conceptions or the collapse of the Iron Curtain. They have been penetrated by the 'long arm(s)' of globalisation in the form of a 'transnational imaginary' (pp. 167-168) and its material manifestations. In one sense, for instance, the world wide web 'unites everyone' (Friedman) yet, as Gough points out, use of the term 'everyone' is a 'monumental overstatement', a 'one-world' fantasy (pp. 171, 173). As Christine Hine captures this paradox: 'the internet is everywhere, but it is not everywhere in the same way' (Hine, 20000, p. 29). Yet, in one sense, curriculum globalisation could be curriculum as community since, in a just world, 'no one owns the truth and everyone has the right to be understood' (p. 52, quoting Kundera).

Indeed, this last idea is also reflected in the organisation of *Curriculum Visions*. It was constituted as series of conversations conducted with graduate students at Deakin University (Australia), Louisiana State University (USA) and the University of Victoria, British Columbia (Canada). Each conversation starts with a 'problematic' followed by one or more essays and concludes with a 'perspective' on the earlier contributions to the chapter. Further, the complexity of this form of organisation is compounded by its intertextuality. Authors cross-refer to each other, indicating that the whole work was not constructed in a linear fashion but, rather, as both a journey and a conversation.

I also read the chapters in a recursive manner, chasing backwards and forwards finding resting places and standpoints to survey what I was reading. No one, to paraphrase Democritus, reads the same book twice. Equally, besides the reading or the conversations that I held with myself as I wrote this review, I also tried to appreciate the silences in the text. But, as a reviewer, should I chart these silences? Is it reasonable, or even fair, to invade a text that is self-consciously neither a method nor a declaration of truth.

The limits of curriculum knowledge are also the boundaries of curriculum ignorance. *Curriculum Visions* is a robust attempt to make a break with the moribund present in curriculum studies. In short, I am still trying to read this challenging text. I am grateful that it has been written; and I am grateful for the contribution it makes to our conversations and to the sustenance our life-long and live-enhancing learning.

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Notes

(1) I do not know whether Comenius used this text, but it fits his aspirations for a technology of salvation: 'I am made All things to all men, that I might by all means save some.' (Corinthians 9:22).

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