DAVID JENKINS

15 Man: A Course of Study[1]

Basic information

Sponsor The National Science Foundation (USA).

Grant Development $4,800,000.
Dissemination and implementation $2,160,000.

Locations Educational Development Center, Cambridge, Massachusetts.
Publishers and organisers of world dissemination: Curriculum Development Associates, 1211 Connecticut Avenue, NW. Suite 414, Washington DC.
British training and dissemination organisers: MACOS Secretary, CARE, University of East Anglia, Norwich.

Period of development 1963–68.

Designated pupils 10–11 year olds, but the course has been used with pupils aged up to 16, and some of the materials with students and adults.

Organiser and team A large team during the development phase, latterly with Peter Dow as director.

Consultants Jerome S. Bruner, Professor of Psychology, Center for Cognitive Studies, Harvard University; Irven DeVore, Professor of Anthropology, Harvard University; Asen Balikei, Professor of Anthropology, University of Montreal.

Materials Films, booklets, teachers' guides and other materials. For full details see bibliography.

Evaluation by Janet P. Hanley, Dean K. Whitla, Eunice W. Moo and Arlene S. Walter, published under the title *Curiosity, Competence and Comunity*. Two-volume edition now out of print, single volume (condensed) included with the teachers' materials.

Man: A Course of Study is an American curriculum, one of the major products of the reform movement in the 1960s. Its claim to be included in a book concerned with curriculum development in action in the United Kingdom is that it has been disseminated on an international scale. Experience of it in Britain has been to a large extent mediated through the appointment of an 'official' dissemi-

nation agency, the Centre for Applied Research in Education at the University of East Anglia. When it arrived at our shores, one could have been forgiven for supposing MACOS to be the packaged curriculum *par excellence*, if not actually teacher-proof at least endowed with daunting authority. The relevance of 'dissemination' to 'development in action' is complex and ambivalent, particularly as the style of dissemination has proved controversial. It has not primarily been concerned with preserving messages intact between the original producers of the programme and its future consumers, but with introducing what some have seen as a distorting lens. It is arguable in principle that adaptation of an educational programme to meet the conditions of a culture (and schools sub-culture) other than the one for which it was primarily designed, is itself a form of curriculum development.

Man: A Course of Study was originally developed in the United States by Education Development Centre Inc. (EDC), under grants from the National Science Foundation. The implicit view of curriculum development was authoritarian, valuing expertise. One of the strong thrusts behind the curriculum reform movement in the States was the perceived need to update the knowledge component in schooling. The reformers sought to close the so-called 'knowledge gap' by involving the ablest scholars from the various fields; such scholars were seen as gatekeepers, offering access to the growing edge of academic disciplines. MACOS became the outstanding example of high level sponsorship and the use of subject experts alongside teachers in curriculum design and development. Consulting scholars in EDC were Jerome Bruner, then Director of the Centre for Cognitive Studies at Harvard University; Irven DeVore, Professor of Anthropology at Harvard; and Asen Balikci, Professor of Anthropology at the University of Montreal.

Although the way in which the projected 'course of study' stabilised into a published programme is not closely examined in public accounts, professional gossip suggests that some of the predictable polite tensions that are normal and unremarkable in large scale curriculum projects reappeared here. High level funding has a magnet effect, encouraging prestigious support, but risking the possibility that those seeking involvement might 'bend' the brief in the direction of their particular interest and enthusiasms. (This is also true of a dissemination agency). Equally the realities of sponsorship and funding encourage that brand of 'funding talk' that allows enterprises to be 'fronted' by reassuring national figures whose accounts may not tally with those rowing in the middle of the boat. But Bruner himself is inclined in retrospect to discount the 'top-down' flavour of the *Man: a Course of Study* curriculum development. Admittedly teachers were 'flattered' by the emergence of support and interest from the prestigious universities, but the collaboration was real. The professors not only recognised the difficulties and dignity of the teaching profession, but themselves tried out the material with teachers and children in two summer schools. Nevertheless there is an implicit residual problem relating to the perceived authority of the programme itself, one that we shall return to in discussing

dissemination. This notion of the 'authority of the programme' was seemingly endorsed when, at the insistence of the National Science Foundation, Curriculum Development Associates (the American dissemination agency) made teacher training a formal prerequisite to the purchase of the materials. This application of the principle of apostolic succession to the teaching of MACOS, nominally at least, was repeated in the United Kingdom. Not untypically there have been tensions and rivalry between EDC, the developers, and CDA, the disseminators.

It may be useful to describe *Man: A Course of Study* briefly in terms of its underlying conception, course structure and curriculum materials. The original blueprint is found in Jerome Bruner's *Toward a Theory of Instruction* (1966). It is remarkable, in retrospect, how widely-based an exploration Bruner envisaged, certainly one transcending any subject-based approach to curriculum, and organised around great questions, theories, and substantive issues. Bruner described the *content* of the course as 'man: his nature as a species, the forces that shaped and continue to shape his humanity'. The broad lines of approach to man's humanness were predetermined as the 'five great humanizing forces' that shaped man's destiny: tool making, language, social organisation, the management of man's prolonged childhood, and man's urge to explain his world.'

More remarkably, the five 'humanizing forces', redefined as 'subjects', had been subsumed under three large, and largely speculative, questions. It was intended that these questions should reverberate through the course:

What is human about human beings?

How did they get that way?

How can they be made more so?

'We seek', wrote Bruner, 'exercises and materials through which our pupils can learn wherein man is distinctive in his adaptation to the world, and wherein there is discernible continuity between him and his animal forebears.'

When the first commercial edition of *Man: A Course of Study* appeared in 1970, it was possible to compare the product with the original inspiration. The first point to notice is that the material is rich, multi-media, extremely sophisticated, attractively presented and expensive. The five humanizing forces had survived intact, although explicit concern with human language had diminished (or alternatively had become diffused and implicit, buried into the foundations of the comparative cultural studies). More than one would have supposed from a reading of the blueprint in *Toward a Theory of Instruction*, the material had become biassed towards film. The man-animal comparisons focussed sharply on a small less-than-self-evident selection: salmon, herring gulls and baboons. The exploration of the human condition arrowed-in on a single typical incarnation, the near-extinct culture of the Netsilik Eskimo, whose life style was to be followed and explored in depth throughout the cycle of the seasons.

But the underlying conceptual structure of the course had also become a surface feature of MACOS, explicitly embedded in the curriculum materials,

particularly the cartoon-format 'concept booklets'. These pressed some of the main ideas of the course, seeking to promote understanding through explicated example. Titles included *Life Cycle, Animal Adaptation, Innate and Learned Behaviour* and *Natural Selection*. These booklets could easily be seen as authoritative, instructional ('based on Harry Recher's research into herons and puffer fish') rather than material for enquiry or discovery. The *Teachers' Guides*, too, were written prescriptively.

It would be wrong, however, to hoist Bruner with his own petard and castigate him as *only begetter* of a course of study that ignores his own important distinction between 'teaching to spectators' and 'teaching to participants'. The balance between instruction and discovery/enquiry is carefully maintained. Indeed the formal aims of *Man: A Course of Study* make it clear that the course is intended to engage the curiosity of the student. Its explanations and concepts have the status of 'working models'. The aims in part refer to process, in part to extremely broad cognitive and evaluative maps that in a sense offer the learner little more than orientation:

1. to give our pupils respect for, and confidence in, the powers of their own mind;
2. to extend that respect and confidence in their power to think about the human condition, man's plight and his social life;
3. to provide a set of workable models that make it simpler to analyse the nature of the social world in which we live and the condition in which man finds himself;
4. impart a sense of respect for the capacities and humanity of man as a species;
5. to leave the student with a sense of the unfinished business of man's evolution.

Given the much-expressed view that there is a persistent antinomy in *Man: A Course of Study* between the 'cognitive map embedded in the materials' and its commitment to enquiry-based learning, it is interesting to see how these original aims, as expressed by Bruner, are reworded in the evaluation report *Curiosity, Competence, Community*, (Hanley *et al.* 1969) and labelled 'Brunerian'. The report suggests that the programme aims at 'enlarging human capacities rather than refining narrow skills', and is 'structured around a "community of learning" rather than around hierarchial or status-defined roles such as "student", "teacher", or "authority".' This, we are told, exemplifies a Brunerian approach to curriculum, operating under three assumptions:

1. That learning is in good measure a social process by which children and teachers can articulate and share ideas with one another.
2. That competence over a body of knowledge will lead to increasing self-confidence and comprehension of one's operating assumptions about life.
3. That the world can be observed, conjectured about, and to some degree ordered and understood using the tools of the behavioural sciences, and that an individual life can be viewed as part of the larger flow of human existence.

(Hanley *et al.* 1969)

Nevertheless CDA's introductory brochure to *Man: a Course of Study* describes the material 'created from ethnographic film studies and field research' as representing 'the most recent *findings* of the behavioural sciences' (my emphasis). The course is said to begin with a unit on the life cycle of the salmon partly so that the unit might 'introduce the vocabulary and intellectual framework for the studies that follow'.

One of the reasons for taking an interest in the internal ambiguities of *Man: a Course of Study* is that the adaptation of it characterised by the Centre for Applied Research in Education at the University of East Anglia is premissed on a line of argument developed by Lawrence Stenhouse. In my view this line adds up to reinventing the promise of the programme. Like much of Stenhouse's work, which is highly idiosyncratic as well as imaginative, its ambition is to turn a personal preference (decently veiled) into a public tradition. But readers may prefer first to get some purchase on the internal tensions between the epistemology of MACOS which might be labelled classic, and its pedagogy, which is romantic. The authors of *Curiosity, Competence, Community* produced a summarising four-dimensional analysis, which considered *Man: a Course of Study* in relation to its conceptual themes, its data sources, its classroom techniques and its learning methods (Table 15.1). There is some evidence of mismatch across the columns.

One aspect of *Man: a Course of Study* that links it with Stenhouse's Humanities Curriculum Project is its repudiation of a 'behavioural objectives' approach to curriculum design. This means simply that it discouraged the view that success is to be measured by conventional testing for evidence of student learning, and

Table 15.1 The conceptual and pedagogical goals of *Man: A Course of Study*.

Conceptual themes	*Data sources*	*Classroom techniques*	*Learning methods*
Life cycle (including reproduction)	1 *Primary Sources*	*Examples*	Inquiry, investigation (problem-defining, hypothesizing, experimentation, observation, interviewing, literature searching, summarizing and reporting)
Adaptation	Student experiences	Individual and group research, e.g. direct observation or reading of texts	
Learning	Behaviour of family		
	Behaviour of young children in school		
Aggression	Behaviour of animals	Large and small group discussion	
		Games	
Organization of groups (including group relationships, the family and community, division of labour)	*2 Secondary Sources*	Role Play	Sharing and evaluating of interpretation
	Films and slides of animals and Eskimos	Large and small group projects such as art and construction projects	Accumulating and retaining information
	Recording of animal sounds		
Technology	Recordings of Eskimo myths, legends and poetry	Writing of songs and poems	Exchange of opinion, defense of opinion
Communication and language	Anthropological field notes		Exploration of individual feelings
World View	Written data on humans, other animals and environments		Exposure to diverse aesthetic styles
Values			

Source: Hanley *et al.* 1969.

achieved its wish by refusing to specify the goals of the programme in testable terms. This stance is not just of technical interest; it forced the evaluation team to examine the programme *in action* and develop an educational critique. Janet Hanley and her co-authors of the evaluation report *Curiosity, Competence, Community* (1969) write:

> During the process of evaluating *Man: a Course of Study*, we frequently encountered from educators and researchers questions as to behavioural goals. The course has not been framed within the confines of a behavioural psychology, nor have its developers thought specifically in behaviourist terms as they prepared and tested it. Rather the course was developed within a humanist framework by way of its emphasis upon the anthropological, biological and ethnographic. Its organising question 'What makes man human?' has always been asked in the broadest possible sense, and its framers, from Bruner on, have emphasised the resonance of the question within the material.

Evaluation tended to confirm what one might readily have guessed, that teachers were facing up to the challenge of *Man: a Course of Study*, but that many of the issues raised were professionally demanding, and required further thought. In particular an educational critique of *Man: a Course of Study* was being articulated with increasing persuasiveness by Richard Jones. At its crudest Jones' critique, published in *Fantasy and Feeling in Education* (1968), suggested that the formidable *intellectual* challenge of the programme was obscuring the need for any defensible exploration of man's *humanness* to find a way of handling emotions in the setting of the classroom. Evidence from clinical observation of single classrooms revealed teachers treating, say, senilicide (in times of hardship the Netsilik eskimo may abandon his grandmother on an ice flow) as if it were emotionally neutral. In a tape-recorded post-lesson discussion a psychologist remarked 'What emotional skills would they have learned this morning if they followed our example? Here's a story about a useless old lady who's expected to commit suicide. Get it? Now let's see how they build an igloo.' But institutions will, if possible, assimilate rather than reject their critics, and Jones' strictures simply ended up as seminar material for teacher training sessions run by the dissemination agencies.

Another problem that emerged from the evaluation report, *Curiosity, Competence, Community* was ethnocentrism. The course, it was suggested, might be generating side-effects, inculcating attitudes opposite to those it was designed to instil. Far from sensing a 'common humanity', some children were finding the eskimo culture alien, even bizarre. Empathy is clearly more readily forthcoming when the human quality responded to is technological inventiveness (e.g. constructing a sledge) rather than an emotional expression in an unfamiliar idiom (e.g. the eskimo myths, which some children ridiculed).

Perhaps more disturbingly, the evaluation report dichotomised the teachers it observed into two broad kinds, 'idea-centred' and 'student-centred'. The student-centred stereotype appears warm and mothering ('an archetypal elementary school teacher'). She is strong on collaborative social learning in the *Man: a Course of Study* classroom, but is herself hazy intellectually on the

concepts of the course. That is, she seeks to teach what she does not properly understand herself. But 'idea-centred' and 'student-centred' reflects in a much more general sense the internal ambiguities of the course, which at times suggests a kind of curriculum optical illusion, perceived differently by different people.

Opposition to the programme, however, came less from its friendly neighbourhood evaluation than from that truss of ideological self-righteousness, the American 'Bible Belt'. Fairly typical was the controversy that arose surrounding the introduction to MACOS into Arizona schools. The following extract is from a circular sent to parents by an anti-MACOS action group in the Madison district:

> Kill useless old grandma, eat the wife's flesh and save the bones. Murder baby girls, exchange wives, learn to think like a baboon, and study animal mating. Simulated hunts and role playing are included which condition children to accept a primitive culture as normal . . . We are told this is a pilot or experiment . . . Why experiment with a course that is *not* state approved? Would you allow a brain surgeon to experiment on your child?
>
> A steady diet of blood letting and promiscuity is presented through games, records, nightmarish films, booklets and pictures . . . The children are also taught that we humans are related to the chimpanzee. The immature impressionable child is thereby induced to believe that man is only an advanced animal.

The political pressure brought to bear against *Man: a Course of Study* was surprising vehement, involving several congressmen. Odd that a programme so *demonstrably* American in preserving the twin myths of the frontier and the perfectability of man, should attract hostility for running counter to fundamentalist myths of the origin of the human species.

When we turn to *Man: a Course of Study* in Britain, we immediately encounter rich paradoxes. It all began with a piece of pure opportunism. The Humanities Curriculum Project team were in America for an HCP workshop sponsored by the Ford Foundation in Ohio State University. The style of workshop session evolved by Stenhouse and his team was to approach the HCP in terms reverberating its own pedagogy; that is, to treat *the curriculum innovation itself* as a 'controversial issue'. In effect, this meant that training sessions were conducted by 'neutral chairmen'. One of the participants at the workshop who found the open stance attractive was Frances Link, leading lady of Curriculum Development Associates. Mrs. Link was about to leave for Miami to conduct a *Man: a Course of Study* workshop, and it was agreed that John Elliott should accompany her. Stenhouse guessed rightly that at the back of her mind was the possibility of setting up in the United Kingdom a centre of dissemination of the programme and the training of teachers.

Elliott was at that time distilling the central ideas of the Ford Teaching Project. He directed this action-based research into enquiry and discovery-based teaching at the conclusion of his HCP contract, subsequently taking it with him to the Cambridge Institute of Education. Elliott's reaction to *Man: a Course of Study* was critical. He considered its claims to be open-ended bogus,

pointing to the conceptual map 'embedded in the materials' and to the 'double-think' involved in giving man a value definition but still calling the programme an open-ended enquiry. Elliot's reservations about *Man: a Course of Study* probably contributed to Lawrence Stenhouse's decision, when offered the British agency, to place it with Jean Rudduck 'as disseminator' rather than with John Elliott 'as trainer'. He was perhaps also afraid that it would be simply annexed into the Ford Teaching Project.

At that time Lawrence Stenhouse 'needed *Man: a Course of Study* very badly.' It appeared unlikely, at least in the immediate future, that he would attract further curriculum development funding from the Schools Council. There arose what Stenhouse describes as 'an extraordinary situation': 'We knew nothing about the curriculum or very little. We had not taught it; we had not seen it in schools; we had had nothing to do with its development. Initially we were learning about the curriculum ourselves ... trying to explore it with other people.' The underlying paradox stood out as nicely ironical: how might this style of dissemination be squared with the moral imperatives associated with obligatory training?

Stenhouse's way out of the partly-acknowledged intellectual dilemma was characteristically subtle. Might not *Man: a Course of Study*, like HCP, be disseminated by training teachers in a way that echoed the perceived pedagogy of the course? This mimesis of the pedagogy by the training style was quite explicit: 'The principle of the conferenc.s became to treat *Man: a Course of Study* as an object of discovery and enquiry, and try to teach it by discovery and enquiry methods'. Thus the dissemination of MACOS was brought under tribute to one of Stenhouse's recurring research interests, the exploration of authority relationships in relation to academic knowledge. The dissemination model chosen by the Centre for Applied Research in Education is one that emphasises the responsibility of the teacher, rather than the authority of the programme. The object of the exercise is three-fold:

1. To make *Man: a Course of Study* more accessible as a potential choice for teachers in primary, lower secondary or middle school.
2. To report on the experiences of teachers using the materials, while recognising their right to determine what is right in their own situation.
3. To maintain a dialogue concerning what problems and possibilities are perceived in the school.

The idea of the 'dialogue' is a central one. Stenhouse characterises the differences between CARE and Curriculum Development Associates as follows: 'They are interested in disseminating a curriculum; we are interested in disseminating a dialogue. We are not basically and primarily interested in disseminating the curriculum. I think that's true' (Interview with Stenhouse).

This may be in tune with the sub-culture of British curriculum development, which tends not to proceed by way of authoritative recommendation. Nevertheless the stance involves 'taking a view' of *Man: a Course of Study*, which was

accepted on the understanding that a certain amount of reinterpretation and renewal would take place. Both the discovery tradition and the instruction tradition are seen by Stenhouse as involving inherent contradictions. As he says 'whereas in the instructional tradition the teacher is caught relentlessly in pretending to know more than he knows, in the discovery tradition he is caught relentlessly in pretending he knows less than he knows'. In contrast CDA's Frances Link begins from an emotional commitment to the programme. The authority she finds most difficulty in getting rid of is emotional authority. Stenhouse admits to finding more difficulty in getting rid of intellectual authority. When alternative ways of advancing *Man: a Course of Study* were canvassed in Britain (in Bulmershe and Madeley Colleges of Education), Stenhouse did not hesitate in using his authority 'to prevent the style being captured'.

When a group of teachers met at the 1975 Standing Conference on Curriculum Studies 'to report on the experience of teachers using the *Man: a Course of Study* materials', it was felt that the packaged curriculum materials, particularly the films, were a relatively fixed element, while the pedagogy might be interpreted selectively. Actual use of the material varied widely, which was perhaps a tribute to the non-recommendatory stance of the dissemination. On the other hand because it is possible to infer from a dissemination 'based on the pedagogy of the course' how the disseminators would themselves approach it in classrooms, teachers felt able to define their own practice in terms of the 'implicit orthodoxies' underpinning the UK dissemination programme. This orthodoxy was perceived as preoccupied with the nature of evidence (cf. the Humanities Curriculum Project) and anti-instructional to the extent of silencing out the sound track on the more informative films, to reinforce their witness as surrogate raw data.

One must expect a training organisation to have its own cultural milieu, and that of the Centre for Applied Research in Education has developed historically around the kind of problems posed by the remit of the Humanities Curriculum Project. Nevertheless the MACOS curriculum has been made accessible, and teachers validated it in their own attempts at modification and adaptation. Quite a number of Yuri Gellers of British education were able to give examples of MACOS spoon-bending. These included:

1. An attempt to keep the material support while 'rejecting' or 'rejigging' the theory. One school overlaid MACOS with an explicitly Christian gloss that would have gone down well in Arizona.
2. Adding to or extending the material. One school grafted on the Tristan da Cunha section of the Keele Integrated Studies *Living Together* pack.
3. Finessing the strategy associated with the media element. Several schools followed the British dissemination agency's idea of silencing out sound track rather than following EDC's *Note for Teachers*; (Lawrence Stenhouse dissents from this interpretation of events, but I remain unpersuaded.)
4. Emphasis-shifting towards comforting ideologies (e.g. the primary school ethos as extended into the middle school).

5. Pursuing private agendas. Ms Cutler, a liberated and vocal secondary school teacher, proved to the satisfaction of many that the MACOS interpretation of the social organisation of baboons is 'sexist'.
6. Updating the knowledge component. This ironically is where the original development team came in. But several teachers had seen, immediately prior to the conference, a television film about a learning chimp Washoe, who had mastered the quasi-linguistic syntax of his computerised prison-laboratory. It was asserted that MACOS had, overnight as it were, become dated in its 'findings' on man-animal distinctions. One beneficial spin off was that this insight allowed individual teachers to escape the authority of the programme. (see Jenings 1967b)

Overall it might be said that the significance of *Man: a Course of Study* in Britain has been its use as a vehicle for the further professional education of teachers. But whether the now-you-see-it-now-you-don't 'reinterpretation' of MACOS for the cultural conditions of British education quite counts as 'curriculum development in action' is an issue best left to the reader.

JEROME BRUNER

Man: A Course of Study: Response I

I have the general feeling about Mr. Jenkins of an almost complete preoccupation with the politics and ideology of education as an institution. He is very sophisticated at it as well. And he operates on the assumption that those who are involved in anything having to do with education are just as sophisticated as he is. Historically speaking, that is a big mistake. Because in point of fact when we were all at work on *Man: a Course of Study* we had in mind principally the issue of reducing the authoritarianism of teaching by making the materials such that they would challenge learners, pupils and teachers alike, and make them something closer to brothers in inquiry.

Now, as you know from the heights of the latter 1970s, that is a very naive idea! Yet that in fact is what we were trying to do.

I would also add that we chose our material in such a way that not only intellectual but valuational issues would have to be approached afresh and without received authority. I still differ with Richard Jones on the issue of whether one can or should produce emotional unmasking in class if one is not prepared to take responsibility in a quasi-therapeutic way for those unmasked – be they teachers or pupils.

I cannot say much about the promotion and dissemination of the course after 1970–71. Frances Link and her group worked mightily and undoubtedly introduced many changes. Nor can I say much about what Lawrence Stenhouse and Jean Rudduck had in mind when they took over dissemination of the course in Britain. They undoubtedly introduced changes too. But the course was ultimately designed with change in mind. I always had the feeling that the main thing that was worthy about the course was that it could be used as well for teacher training, and that used in that way it would produce quite upredictable results in what teachers would do with the course afterwards. I gather from everything I have been told that this is indeed the case.

The heavy burden of film in the course was one of the inevitabilities of the local Cambridge scene. Zacharias had a big film studio going and it was also the case that the Canadian Film Board and DeVore had most of their materials

on the Netsilik and on baboons in the form of film record. But film has a way of pre-empting reality by too much emphasis on how things *look* and how they *appear* to work. It always risks becoming a substitute for imagination. I certainly reduced the emphasis on film as much as I could and I also worked very hard to use film as a stimulus rather than as a given. I don't think that we fully succeeded by any means in bringing film into balance.

I think it is fair to say that I exerted all the power I could in the direction of keeping the balance that finally emerged in the course between initial aspiration and materials used for achieving that aspiration. Undoubtedly, the aspiration in the form of the questions that I had used initially have put a predisposing structure into the materials. That structure is undoubtedly Brunerian! But let me only urge that it is intended as the goad to a dialogue rather than an imprisoning matrix from which the student's mind cannot escape. Politically, I suppose that would be considered naive. Ah well.

JEAN RUDDUCK

Man: A Course of Study: Response II

Man: A Course of Study and David Jenkins's chapter of *Man: a Course of Study* are alike in some respects. In each there is excitement, glamour and challenge. They are both, in their ways, as beguiling as the Lotus Isle, and visitors – users of the course and readers of the chapter – need to have their wits about them. Neither course nor article presents the whole truth, and the rhetoric can easily dull one's responses and persuade one that it's all there and it's all right.

Jenkins certainly raises important questions about knowledge and control in relation to the dissemination of curriculum development. MACOS presents a thesis about the nature of learning; Jenkins presents a thesis about the influence of authority. On the whole what he says about the dissemination of the course in the UK is sound and well-supported with evidence, but the weakness of the thesis is that it is restricted to general principles and is not tested against the details of current practice. Jenkins seems most interested in the 'grand originals': Bruner, Link and Stenhouse, but the programme of dissemination in this country is planned by a group of teachers from schools and colleges who give up a lot of spare time to thinking out how to improve the quality – and quantity – of support for teachers interested or involved in MACOS. They are not managed by Stenhouse through some miracle of remote control. What one misses in Jenkins' account is the sense that some of the ordinary everyday aspects of teaching and training MACOS are worth writing about.

Here and there in the chapter are points where an alternative view might reasonably be set alongside Jenkins' own.

First, the handling of emotion in the classroom or the ethnocentrism of pupil and teacher response: these are problems that are widespread in our schools. MACOS does not create these; it merely focuses them and helps teachers to pay attention to them.

Second, it seems right, within the framework of enquiry teaching, that the instructional resources should be built into the materials rather than into the teacher's role. In this way, the teacher is free to make a critical response

alongside the pupils. Both teacher and pupils take their place within the community of learners.

Third, Jenkins' preoccupation with the soundtrack of the animal films – which have taken on an absurdly Machiavellian power. Of course teachers might experiment with the impact of film run without soundtrack for an initial viewing, but we would not recommend the exclusive use of the picture alone for if teachers shut off the sound they are shutting off the instruction and they may then be forced back into the 'teacher' role of the instructional classroom. Soundtrack as well as visual image provides material for critical enquiry.

Note

1. This account is based in part on taped interviews with Lawrence Stenhouse and Jerome Bruner, and an informal conversation with Frances Link. It is not my supposition that these people would wish to add to their kindness by endorsing the account as written, for which I must take individual responsibility.