

# Theory or practice?

## The aims of CDT reconsidered

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### I

#### An Intellectual Straitjacket

I have for some time found it increasingly difficult to resist a conclusion so heretical that the mere acceptance of it may seem a proof of lunacy. Yet the failure of a recent attempt to resist it has led me to want to confess the heresy. And at any rate a statement of my reasons may provoke a refutation.

The heresy, in brief, is that CDT is becoming far too theoretical; that recent moves in the literature on CDT, though perhaps not yet in its practice, are in danger of placing the subject content of the crafts into what I shall call an 'intellectual straitjacket'. Of this heresy a corollary is the prediction that this intellectual straitjacket will bring about the death of practical work in CDT; that, as a result of being strapped into it, CDT will cease to offer at all any practical education of any consequence. This corollary, however, which predicts the possible death of the 'C' in CDT, and which may seem only a further heresy, I propose to ignore. The heresy, in my opinion, is also, if not equally, attributable to the practice as well as the theory of CDT, and for much the same reasons. But, for simplicity's sake, I propose to confine consideration to its theory, especially as espoused by some of the contributors to this journal.

In confining consideration to the theory of CDT, I do not mean to imply that the subject's theorists are solely responsible for the danger in question. Nor do I mean that they intentionally want to place the subject content of the crafts into an intellectual straitjacket; it seems to me that they do not, but that it is only owing to the current disparity in CDT between its theory and its practice that they have not yet done so. Nor do I mean to imply that the danger of placing the subject content of the crafts into an intellectual straitjacket appears on the surface; but rather that it becomes evident once we lay bare its three main causes. These I take to be, firstly, the 'facts and statistics' bias in technology, secondly, the emphasis on purely cognitive design, and, thirdly, the response by CDT specialists to the status problem faced by their subject. That response, in brief, is to aim at the achievement of 'recognition' and this is, in turn, is seen to lie, in part,

intellectualising the subject content of the crafts, in part, in instilling a 'new consciousness' into the public's mind *vis-a-vis* the new but rigorous intellectual demands of the subject.

After discussing the first two of these causes, i.e. the 'facts and statistics' bias of technology, and the emphasis on purely cognitive design, I shall argue in what follows that this dual response to the status problem is misguided: that it is not necessary to 'intellectualise' the subject content of CDT in the cause of 'recognition', and that the drive towards the 'new consciousness' should be minimised. This means that the subject content of CDT does not need to become highly theoretical; that it can remain broadly practical.

Note that I have said 'does not need to become highly theoretical'. This contradicts my heresy; but only in part. For the contradiction only holds in the subject's practice, not in its theory. In order to show the limitation of my heresy to CDT's aims and philosophy let me establish an empirical assumption which underpins my central argument *viz.*, that CDT teachers still have time plan out the guiding aims of their subject since, although now fully complete in the subject's aims and philosophy, the swing of the educational pendulum away from traditional handicraft and towards the 'new philosophy' of CDT is not yet fully complete in the subject's educational practice.

### II

#### The Official Doctrine

Professor Eggleston's seminal book on CDT, *Developments in Design Education*, contains (on its back cover) what, to coin a phrase from Gilbert Ryle, might be called the 'Official Doctrine' of the subject. This Official Doctrine maintains that Craft Design and Technology is an area of the curriculum which has,

'more than any school subject over the past decade or so, changed out of all recognition'.

This transformation or 'change out of all recognition' is sometimes described in terms of an educational pendulum, which has swung away from the wholly practical, almost anti-intellectual bias of traditional handicrafts towards the more

theoretical bias of contemporary CDT. On the Official Doctrine the swing of this pendulum away from traditional handicraft and towards the 'new philosophy' is now complete. Yet, according to Colin Tipping, the Official Doctrine's main protagonist, the swing of the pendulum has met with a considerable 'inertia inherent in the system'<sup>1</sup> — a claim substantiated by reference to empirical data.<sup>2</sup> In short, Tipping's claim is that, 'despite a strong and determined push' of the pendulum in the wealth of literature on the aims of CDT, in schools themselves the inertia inherent in the system has meant, 'a lot of huffing and puffing but very little real change'.<sup>3</sup>

Thus, on the one hand, Tipping agrees with the Official Doctrine to the extent that the 'change out of all recognition' in the subject's aims and philosophy is a change indeed. Yet, on the other hand, his challenge centres on the addition of a qualifying clause to the Doctrine's claim that this 'change out of all recognition' has actually occurred in schools *viz.*, on the addition of what might be called an '... in theory if not yet in practice' clause.

#### A Hegelian Synthesis

The upshot of this clause is crucial to an empirical assumption which underpins my central argument in this article. That empirical assumption is that CDT specialists still have some time — albeit an increasingly limited amount of time — left to plan out the guiding aims of their subject — to plan out, in short, whether or not they in fact want their subject to 'change out of all recognition'. Perhaps the 'inertia inherent in the system' mentioned by Tipping implies that they do not; that they want to retain elements of traditional handicraft despite the 'strong and determined push' towards theory in the 'new philosophy' espoused in CDT textbooks. This, in my view, is no bad thing. Indeed, my central argument in this article is that their plan of aims should consist of something like a Hegelian synthesis constructed from the thesis of traditional handicraft, which I take, very broadly, to be practical and 'hands on' rather than theoretical, and the antithesis of the 'new philosophy' in craft education, a philosophy which feels it necessary to

'introduce a much needed intellectual component to craft'.<sup>4</sup>

This idea of a Hegelian synthesis, it seems to me, if encapsulated in their plan of aims, would enable CDT specialists to avoid what I take to be *the* immanent danger in the subject: that of intellectualising away the practical element of the crafts. It would that is, *contra* the Official Doctrine, prevent the subject changing out of all recognition. Perhaps, moreover, following Hegel's own writing on the dialectic, in particular his view, echoed in Marx, that the dialectic between thesis, antithesis and synthesis is progressive, we might reasonably assume that the realisation of such a synthesis would be an improvement on all that has gone before. Certainly this is the hope behind my arguments in this paper.

Thus in this article I shall take as a 'thesis' the practical emphasis of traditional handicraft. (This I shall equate, very broadly, with knowing how rather than knowing that, with traditional school workshops rather than design offices, with 'hands on' rather than textbook teaching, and perhaps even with the subordination of theory to practice.) As an 'antithesis' I shall take the three main causes for the swing towards theory or 'change out of all recognition' *viz.*, 1) the 'facts and statistics' bias in technology, 2) Phil Roberts' emphasis on purely cognitive design, and 3) the dual response to the status problem. (This is not to suggest, however, that these three causes for the swing towards theory are all on the same level. They are not. The dual response to the status problem (i.e. achieving 'recognition' in part by 'intellectualising' the subject content of CDT, in part by instilling a 'new consciousness' into the public's mind *vis-a-vis* the new but rigorous intellectual demands of the subject) is of a greater generality than the issues of design and technology and might therefore be used to explain some of the other moves.)

Given this polarity between thesis and antithesis, practice and theory, it seems to me that the choice facing the CDT teacher at the moment between the hands-on focality of traditional handicraft and the more cognitive emphasis of the 'new philosophy' parallels the choice facing the modern

reader of Aristotle's *Nicomachean Ethics* concerning Aristotle's two accounts of the good life from which free citizens of the Greek *polis* are able to choose — namely, the active or 'practical' way of life of the politician and the contemplative or 'theoretical' way of life of the philosopher. Hence the question title at the head of this paper *viz.*, 'Theory or Practice?' As the foregoing reference to a Hegelian synthesis perhaps already makes clear, the central argument of this paper is that the choice facing the CDT teacher should not be 'either/or'; that the aims of CDT — like Aristotle's account of the good life — should be ground in a bedrock of theory *and* practice, or, as Gramsci phrases it, in *praxis*. (Elsewhere (i.e. in 'Educated Man as an Action Man') I have argued that such a synthesis can in fact be constructed out of Aristotle's distinction between the 'theoretical' life of the philosopher and the 'practical' life of the politician, and that this synthesis in one person — or 'being of *praxis*, as I phrased it — should inform our conception of the educated man.)

### III

#### Theoretical Technology

My equation of traditional handicraft with the practical and the 'new philosophy' of CDT with the theoretical obviously stands in need of qualification. To put it roughly, traditional handicraft teaching obviously imparted at least *some* theory or 'hands off' teaching to its pupils, and the 'new philosophy' does allow its pupils at least *some* 'hand on' use of hammers and hacksaws. I am picturing, it might be said, two 'ideal' types (in Weber's sense of the word), with the best traditional handicraft teaching reflecting the sound honest practical approach of the artisans of former times, and the 'new philosophy' advocating both a purely cognitive design to be conducted in 'design offices' or 'design studios', rather than in traditional school workshops, and a high-tech 'hands off!' technology, as if the technology taught in CDT were something to learn about, not with. But, given this qualification that I am picturing two 'ideal' types, in Weber's sense of the word, my two juxtaposed 'ideal' types still stand. For on the one

hand Issac, commenting on traditional handicraft, has said that 'study was almost wholly practical' in that the making of everyday 'useful' objects reflected 'the sound honest approach of the artisans of former times',<sup>5</sup> and on the other hand, the same author, commenting on the 'new philosophy' of CDT has warned against the heavy emphasis on theory. There is currently, argues Issac,

'too great an emphasis on the teaching of technology as a large unrelated mass of facts and statistics'.<sup>6</sup>

Similarly, Dr. Bernard Down of Brunel University warns us that:

'I am most uneasy about attempts to increase the subject's status by turning competent teachers of practical skills into teachers of scientific and technological theory — as illustrated by some of the recent moves in teacher education'.<sup>7</sup>

Perhaps, moreover, these two comments are related. For facts and statistics technology smacks of an attempt to increase the subject's status; of an attempt to raise CDT's status by making it appear more 'academic'. And, certainly, as Dr. Down points out, there is good cause for craft specialists to be 'most uneasy' about such a misuse of scientific and technological theory.

For Issac the too great an emphasis on a large unrelated mass of 'facts and statistics' in CDT is due in large part to the un-craft-like 'high-tech' 'hands off!' emphasis of the 'technology' now chosen and taught, with the consequence that the technology or 'T' in CDT is increasingly becoming 'something to learn *about* rather than *with*'.<sup>8</sup> A remedy, no doubt, would be to make the 'T' more like the 'C'. That is, make it more craft-like with a low-tech 'hands on' emphasis.

But another reason for the facts and statistics bias is undoubtedly the false belief that technology is essentially theoretical rather than practical; that it is the product of 'knowing that' rather than of 'knowing how' in Ryle's terminology. Technology is seen to be 'science based', as enshrined in the misnomer 'science-based industry' — even though the only industry that deserves this title is the training of

science graduates. The truth, as Michael Clarke has shown in 'Technology and Knowledge',<sup>9</sup> is that the operating precepts enshrined in technology are the product of practical know-how, not science, 'pure' theory or knowing that. As a result, 'pure' scientific theory as such does not have an enormous part to play in technology's inundation of the world, just as it was the experimental engineers, not scientists, who drove the Industrial Revolution through in its early stages.

I make this point about the distinction between science and technology with force because I believe it to be profoundly important to the lacuna in our high culture which has denied the valuation to 'technology' which otherwise might have given it parity with science and the humanities. This low valuation of technology in relation to science is due to the belief, or rather confusion, that technology is 'applied science', a confusion that persists as evidently in CDT as elsewhere. In part also it is due to an age old prejudice, a prejudice at least as old as Plato, that persuades us that there is a duality in nature. In the beginning is the Form or Idea or essential excellence, and everything after that, in time or extension, is less in value. So too we continue to believe — perhaps due to the influence of Plato — that 'pure theory' and 'pure science' are best, and 'applied science' is worst.

If technology is 'applied' science then, on the above prejudice, it becomes lower in value; diluted and less intellectually demanding than high, pure or real science. And so, if the status of CDT is to be improved, as Dr. Down suggests, by turning competent teachers of practical skills into teachers of scientific and technological theory, then, out of the two, the scientific theory must predominate and the technological theory must be science-based and, indeed, nearly pure science. It must, in short, be biased towards facts and statistics, in Issac's phrase, rather than towards know-how.

#### Purely Cognitive Design

So, according to Issac, tutor at the London University Institute of Education, there is currently too great an emphasis in the teaching of technology as a 'large unrelated mass of

facts and statistics'. But this is not all. Along with theoretical rather than practical technology, we find a similar or parallel emphasis in the 'design' element of the subject. In the 'new philosophy' on design, as well as in technology, the emphasis is on thought in the abstract rather than on thought in action, thought behind the office desk rather than thought on the workshop floor. The 'design' most recently advocated is to be conducted in 'design offices'. In these design 'offices' most of the pupil's work, by definition, is to be done with pencil and paper rather than with lathe and micrometer. The 'realisation' of design solutions is to be achieved in card-board rather than in wood or metal, and this, it seems, is to be 'allowed' only as a 'concession' to the practical bias of the traditional craft approach.

#### Craft: 'retrospective ideology'?

Phil Roberts, a member of Professor Bruce Archer's Design Education Unit at the Royal College of Art, argues in this journal that the place of handicraft or 'traditional practical work' is no longer justified in the CDT curriculum; that its place is 'ill-founded', a throwback to a now out-moded philosophy rather than a product of considered rational judgement. In 'Beyond Ideology: Retrospect and Prospect' Roberts argued that we need to 'progress' beyond the retrospective ideology of craft, the 'ideology' of actually making things in wood, metal and plastics. We need to 'progress' to the 'prospect' of a programme of purely cognitive design education, in which design solutions are realised in the mind rather than in the real world. 'Could it be', he asks in 'Beyond Ideology',

'that the use of wood, metal and lately, plastics, for realising design solutions in the cause of education is ill-founded and more the result of historical factors than of considered rational judgement?'<sup>10</sup>

Turning over the page we find that Roberts answers his own question with a definite 'Yes'. Making things, by a curious piece of double-think, is dubbed counterproductive. As he himself phrases it,

'work in wood, metal and plastics is largely wasteful and counterproductive'.<sup>11</sup>

But what he really means — as he and his mentor Professor Bruce Archer make clear in an earlier joint article<sup>12</sup> — is that the traditional practical approach is largely wasteful and counterproductive to the development of 'design awareness', which is the apogee of Roberts' philosophical system.

'It is certainly counterproductive in terms of giving good design awareness . . . the very concept of (which) stresses the need for fluency of ideas. Using wood and metal is far too slow to provide much practice of this kind'.<sup>13</sup>

Against this the majority of traditional craft teachers would maintain that craft is most certainly not counterproductive in terms of good design awareness, indeed, that it is impossible to teach good design without a sound knowledge of materials and techniques. Certainly, trying to teach design without craft would seem to me to be like trying to do a jigsaw without knowledge of the picture on the box, or trying to do maths without a knowledge of tables.

But over and above this specific objection, what are we to make of this 'prospect', in Roberts' phrase, of purely cognitive CDT in the cause of his and Archer's highly esteemed goal of 'design awareness'? *Prima facie*, the least that can be said is that it serves to justify my earlier equation of traditional handicraft with the practical and the new philosophy of CDT with the theoretical. I am, I have conceded, picturing two 'ideal' types in Weber's sense of the word, though, given both the 'facts and statistics' bias in technology and the emphasis on purely cognitive design, my latter equation of the 'new philosophy' with the theoretical, in particular, still stands. I have spent more time on justifying this latter equation since the claim that the subject content of CDT is becoming too theoretical is a heresy that contravenes the subject's Official Doctrine.

But these recent trends in design and technology not only lend support to my heresy. They also serve to indicate the demise of craft — that is, the phasing out the 'C' in CDT in the cause of the 'D' (some advocates of the new philosophy — e.g. Tom Dodd — have

for some time called the subject 'design technology').

#### IV

##### The Demise of Craft

At this point therefore it seems appropriate to ask why it is that craft is being phased out. The answer we give is important since until very recently craft has been regarded as the bread and butter of the subject. Why is it in such rapid decline?

Part of the answer, no doubt, is economic. As one CDT teacher pointed out to me recently, one important reason for the swing towards theory is lack of finance: 'Pencils and paper', he told me, 'are far less expensive than metal and wood'.

Another part of the answer is new fads and bandwagons on the part of the subject's leading figures. When I was a CDT student 'design', not craft, was the be-all and end-all. It was the inword with my CDT tutors, and rehearsing and re-hearsing 'the logic of the design process' was seen to be the focal point of the subject, both in their published articles and in their lectures and tutorials. Now design has given way to technology in the more recently published articles of those very same tutors — though of course some tutors are more bandwagon than others. With each new fad craft pushed out more and more.

But perhaps the main answer lies deeper still. Craft, in educational circles, is a four letter word. Why is this? Partly it is because traditionally craft has been the sink subject which absorbs all those pupils the German teachers don't want. Partly also it is because of the image of the practical and empty headed which has not changed since its classic formulation in the Norwood Report. But, whatever the reason, it is clear that craft is attached with a stigma. 'Stigma' originally meant a mark physically branded on a slave or criminal. What is it generally taken to refer to today is an imputation attaching to a person's reputation or standing. As Issac points out, craft has 'become a stigma' in educational circles and in this context the term is being used to indicate that craft, in particular traditional handicraft, has a status problem in the sense that the subject does not share parity of esteem with traditional

academic subjects such as mathematics and German. As Issac notes in his comments on traditional handicraft.

'The strong emphasis on . . . making everyday 'useful' objects had a pronounced vocational motive. Study was almost wholly practical . . . The sound honest practical approach of the artisans of former times . . . became a stigma and relegated the subject to a low level training judged suitable for the unambitious' (1983:51).

##### A Dual Response to the Status Problem

The CDT specialist's misguided response to the status problem of the subject has been to make craft less like a practical subject, as conjured up by the traditional image of 'woodwork' or 'metalwork', and more like 'respectable' academic subject such as French or (better still) German. In other words, the response to CDT's status problem, at least hitherto, has been one of passive submission. It has been, at bottom, an attempt to 'fit in' with the cognitive-intellectual grammar school curriculum which, according to Hargreaves, continues to hold its central and dominant place in the secondary school curriculum, despite comprehensive re-organisation. For that response has been to aim at achieving public 'recognition' and that, in turn, is seen to lie, in part, in 'intellectualising' the subject content of the crafts, in part, in making the public and the universities aware or 'conscious' that this has been done. In a section of *Developments in Design Education* entitled 'The Status Problem' Eggleston informs his readers of the long tradition among craft teachers of the first of these two responses; that of 'intellectualising' the subject content of the crafts in the cause of 'recognition':

'Throughout the present century craft specialists have fought to enhance their status in the school curriculum. Faced with the persistent underevaluation of their work in a school system that has favoured intellectual achievement they have sought to 'intellectualise' their own subject'.<sup>15</sup>

##### CDT: The New Consciousness

Yet this sacrifice of the practical for the theoretical has failed in its intended aim.

For the stigma still remains. What is called for therefore is a raising of public consciousness; indeed a new public consciousness *vis-a-vis* the new but rigorous intellectual demands of the subject. The truth that CDT practitioners are 'introducing a much needed intellectual component to craft'<sup>16</sup> needs to be brought home, and forcibly so. The new consciousness, says Eggleston in 'Craft, Design and Technology: The New Consciousness', aims to make well known to all what is already well known to readers of the CDT journal:

'that work in the design subjects compares favourably with the intellectual demands of any other subject in the curriculum'.<sup>17</sup>

There has even been an attempt to instill the new consciousness into the current Prime Minister. In an open letter, published in this journal, Mal Evans informs Mrs Thatcher, in general, of the intellectual demands of his pupils work in CDT, and, more specifically, that a good pass in a CDT subject at 'A' level should be equally acceptable and carry as much weight for university admission as other more 'academic' disciplines. In her reply — also published — the Prime Minister found these status problems to be 'particularly disquieting' but had to admit that,

'It is probably true that admissions tutors in universities continue to attach undue weight to traditional academic disciplines'.<sup>18</sup>

Yet, politics aside, out of these two responses it is Margaret Thatcher, not Mal Evans, who is on the right lines. For Mal Evans attempts to show how 'respectable' CDT has recently become, now that the practical shackles of traditional handicraft are discarded in favour of the more cognitive 'new philosophy'. Mrs. Thatcher, on the other hand, questions the need to passively 'fit in' with the orthodoxy of subordinating practice to theory in schools: she says that admissions tutors in universities continue to attach 'undue weight' to traditional academic disciplines, thereby implying that it is the prejudicial attitudes towards practice in schools and other 'academic' establishments that should change, not good craft teaching. She seems to be suggesting, in other words, that the dual response to the

status problem is not only too strong; but that it is radically misguided.

### Too Strong a Reaction

As we have seen, the response to this status problem has been to 'intellectualise' the subject content of the crafts, whether by facts and statistics technology or by some other means. Consequently, exponents of the dual response to the status problem have stressed that fact that the inclusion of design and technology has served to introduce 'a much needed intellectual component to craft'. But we need to ask whether some of these exponents of the 'new philosophy', in their haste to 'intellectualise' the subject, and thereby rid it of the stigma attached to traditional handicrafts, are in danger of reacting *too strongly* against the practical emphasis of traditional handicraft by discarding the practical 'C' in CDT altogether (witness the title of Tom Dodd's book *Design Technology in the School Curriculum* (1980), for example). Indeed, it is at this point that we need to ask, How far are we prepared to let the consequences of these undercurrents go? How theoretical, for the sake of 'recognition', are we prepared to let the subject content of CDT become? In my view the time for applying the brakes is well overdue. For the subject content of the crafts is well on the way to being placed in an intellectual straitjacket. It is in this sense that I predict the possible death of CDT. For, the intellectualisation of CDT will only serve to accelerate the insidious disappearance from the curriculum of any kind of practical education whatsoever.

In short, the above dual response to the status problem is highly dangerous. The attempt to 'intellectualise' craft is all too powerful. So too is the attempt to implant in the public's mind what has been called the 'new consciousness'. Indeed, wholesale adherence to the new consciousness threatens to obliterate consciousness of the practical altogether.

### V

#### Consequence

What are the consequences of this 'prospect', to borrow Roberts' phrase, of a purely cognitive CDT? It is perhaps a commonplace among CDT teachers that

the majority of their pupils prefer practical work to theory. Consequently, the least that can be said about the swing towards design awareness and technological theory and away from making things in CDT is that pupil motivation will suffer. 'As many reports have indicated', says Dr Bernard Down (instancing Chapter 17 of the Newsom Report *Half Our Future* in a footnote),

'for the majority of pupils the craft subjects seemed enjoyable because they were practical and relevant. It may not always be this way if less and less time is spent in making things and more and more time is spent on design work or technological theory'.<sup>19</sup>

#### The Remedy

So a drop in pupil motivation would be one consequence of the swing towards theory. Another will be the intellectual straitjacket mentioned earlier. But, apart from diagnosing *consequences*, perhaps I ought also attempt a diagnosis as to the *remedy* for my heretical thesis. For there is still time for such a remedy, as my earlier empirical assumption made clear. And that remedy, at bottom, consists in the 'Hegelian synthesis' mentioned earlier, a synthesis between the practical bias of traditional handicraft and the current swing towards theory. Such a synthesis would indeed remedy my heresy. It would, however, also prevent the 'change out of all recognition' so central to the subject's Official Doctrine.

One aspect of this synthesis, as already suggested in relation to technology, would be less of an emphasis on the teaching of technology as 'a large unrelated mass of facts and statistics', in Issac's phrase. Another aspect, as suggested in relation to Archer and Roberts, would be to reduce the heavy emphasis placed on the development of 'design awareness', the apogee of their system. For, at least for Roberts, the development of this seems to imply the total sacrifice of practical work in wood, metal and plastics, and, by implication, the practical craft approach to CDT in its entirety. Finally, another, no less significant, aspect of the remedy in question would be a fundamental re-appraisal of the accuracy of the CDT teacher's response to the subject's status problem in both

school and society, a response that, hitherto at least, has been to achieve recognition by 'fitting in' with the preference for cognitive-intellectual achievement in our society.

Each of these three aspects of the remedy has its own route. The route to reducing the 'facts and statistics' bias in technology would be by low-tech hands-on rather than high-tech 'hands off!' technology. The route to practical design would not necessarily be through eliminating the aim of 'design awareness'. The notion that design awareness is a free floating quality of mind like creativity, as applicable to fashion design as to engineering, has always seemed to me to be highly problematic. This difficulty would be alleviated by making design awareness craft specific. Finally, the route to re-appraising the response to the status problem would be to take note of attitude changes towards the value of practice that have occurred both in schools and in wider society. For these attitudes changes mean that we do not have to intellectualise the subject content of CDT in order to achieve public recognition.

To fill out these three routes in any detail would take more space than is available here. I shall, therefore, focus my remarks on the third.

#### An Inaccurate and Misguided Response

If it is true, as Mrs. Thatcher claims in her reply to Mal Evans, that admissions tutors in universities continue to attach undue weight to traditional academic disciplines, then it is the practices of admissions tutors, not CDT teachers that need to change. In other words, what is needed to quell the trend that I am here attacking is a fundamental re-appraisal of the accuracy and effectiveness of the dual response by CDT specialists to the persistent undervaluation of their work in both a school system that has valued intellectual virtuosity over practical competence and in a society that has offered higher economic reward and social prestige to the 'black-coated' rather than the 'black-handed' occupations. The nature of that dual response is broadly functionalist. For it is, as I have suggested, one of passivity, one of attempting to 'fit in' with the preference for cognitive-intellectual

mastery over practical competence in our society. And that, like functionalism, is to assume that, in the relation between school and society, society is the dominant partner. Yet the response is, in my view, both inaccurate and misguided. It is the prejudicial attitudes to practice in schools and, indeed, in wider society that should change, not the philosophy of good craft education. And there are indications that the CDT teacher is not totally powerless in bringing about such change. 'The extent', says Dent,

'to which the educational system conditions the development of society has never been properly appreciated in this country'.<sup>20</sup>

#### Attitude Changes in Wider Society

If, however, like functionalism, CDT specialists continue to maintain that, on the contrary, the subject must 'fit in' with wider attitudes since society conditions development within the school, since development within secondary education has to wait upon changes in the social structure, then still the signs look promising. For there are, it seems, indications that attitude changes in wider society are afoot. R. Dahrendorf's *On Britain*, for example, and M. Weiner's *English Culture and the Decline of the Industrial Spirit*, are both detailed analyses of the attitudes and prejudices which have provoked much of the hostility towards practice and the practical in our society. And both are openly scathing about this hostility. In short, both of their polemics spring, in the main, from a dissatisfaction with the British Disease, a disease which is accused of downgrading the economic and social status of industrial employment in our society, and even of prejudicing our best brains against a career calling for black hands rather than a black coat.

This attitude change in wider society towards the value of the practical as against the value of the theoretical finds increasing support from philosophers having an anti-Cartesian concept of mind. Against Descartes' 'I think therefore I am', i.e. Descartes' assumption that thought is the primary category of experience and the guarantee of personal identity, these anti-Cartesian philosophers have

stressed the primacy of the practical in human experience. For example MacMurray has written of the need to transfer the centre of gravity in philosophy from thought to action and similarly, much of Ryle's *The Concept of Mind* is concerned to question whether theorising is at all necessary to intelligent practice. 'We need', says MacMurray,

'to transfer the centre of gravity in philosophy from thought to action . . . We should substitute 'I do' for the 'I think' as our starting point and the centre of reference'.<sup>21</sup>

#### Attitude Changes Within the School

Similar shifts in attitude towards the value of practice have occurred in schools, following the work of the Education for Capability movement and others. It is not clear whether *pace* Dent, these attitude changes in schools have conditioned the attitude changes in wider society or whether, *pace* functionalism, they are merely a product of them. Nevertheless, traditionally, practice has been subordinated to theory in our secondary schools. Indeed, Entwistle has claimed that the theory-biased schools of Western Europe reflect the Cartesian orientation of Western thought; that they are living exemplars of Descartes' 'I think therefore I am'.<sup>22</sup> More recently, however, the Education for Capability movement has stressed the need for making the secondary curriculum more practical and in Hargreaves view a central challenge for the comprehensive school consists in radically reducing the hegemony of the grammar school curriculum. In his own words,

'Our traditional academic and cognitive-intellectual curriculum, which we inherited from the past and from the grammar schools, must, in the new comprehensive school, itself become comprehensive and balanced'.<sup>23</sup>

This reversal in the roles traditionally ascribed to theory and practice in schools finds some support, as we have seen, from philosophers having an anti-Cartesian concept of mind, and from the increasing number of polemics on the British Disease of downgrading the practical man in our society. Furthermore, given this broader

framework of changing attitudes the way is open for the CDT teacher to reassess his or her response to the status problem, even given an adherence of functionalism. The shift in attitude in wide society suggests that perhaps now the subject content of the crafts can achieve public 'recognition' while at the same time remaining broadly practical. The reduced dominance of the cognitive-intellectual grammar schools curriculum in the comprehensive school supports this view.

It remains perhaps a further question as to how theoretical the subject should become for the sake of technology and design awareness. We need to ask whether, at least to some extent, design and technology have themselves been bolted-on to craft teaching for the sake of improve status. Given that they have not, the craft teacher still needs to beware of the Evangelical Wing of the design and technology movement. By this I mean that he or she still needs to be *selective* rather than taking on board the recommendations of the 'new philosophy' *tout court*. In my view, a fundamental reassessment of the balance between traditional practices and the 'new philosophy' in CDT needs to be made. The subject should continue to be informed, on the broadest scale, by its excellent practical tradition in schools as a 'craft', the best elements of which I take to be its hands-on focality and its tradition of making things in wood and metal.

## VI

### Postscript: The attack on theory in this paper is both 'hard-headed' and anti-intellectual

At this point it may be as well to reply to an objection that is often made against those who stress the value of practice in schools and philosophy. For it will probably be objected by certain advocates of the design and technology movement that my attack on the theoretical bias of CDT in this paper is 'hard-headed' and that I, like the traditional handicraft teacher, am an anti-intellectual — a Morris-like luddite, but against theory rather than machines.

This 'anti-intellectual' epithet is sometimes ascribed to the anti-Cartesian philosophers MacMurray and Ryle mentioned earlier. Indeed, this 'anti-intellectual' epithet is commonly

ascribed to both those in philosophy, such as Marx, and those in education, such as myself and the Education for Capability movement, who stress the importance, indeed the primacy, of practice, both in schools and in philosophy. Thus Marx's admonition in his Eleventh Thesis on Feuerbach that 'philosophers have only interpreted the world', whilst 'the point is to change it' has often been taken as a command to abandon philosophy or thought. Similarly, the Education for Capability movement has been accused by Keith Thompson of wanting pupils to become 'uninformed activists' who 'act without thinking', of wanting educated man to become *totally* and action man.<sup>24</sup>

Against Keith Thompson, however, I have argued elsewhere (i.e. in 'Educated Man as an Action Man'),<sup>25</sup> that I, like the Education for Capability movement do not want educated man to become *totally* an action man, but rather 'a being of *praxis*, that is, a being in whom theory and practice are united. It seems to me too that such a being of *praxis* should provide the educational nexus around which the aims of CDT are formed. For, to paraphrase Peters, of anything we can call an aim of education we can say, 'So that's what we take the educated man to look like'.

In stressing that a being of *praxis* should inform our conception of the educated man, and that such a being of *praxis* should provide the educational

nexus around which the aims of CDT are formed, I am trying to answer the above charge that the drift of this paper is 'hard-headed', i.e. anti-intellectual and against theory. Above all I am trying to show that this 'anti-intellectual' charge is obviously false. For, as my earlier reference to a 'Hegelian synthesis' made quite clear, I want *both* theory and practice, craft and design technology, to inform the aims of CDT.

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