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Educational management, problem-based learning, and explanatory critique

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On a broad view, the Australian educational system over the past decade or two seems, in the main, to have shown a dismal willingness to collapse with barely a whimper into a simplistic corporate managerialist ideology, apparently on the assumption of consumerism as the one true faith. In doing so the system is, it is often assumed, merely following the legitimate imperatives of democratically elected central governments which, irrespective of party-affiliation, have adopted this ideology – at least in practice. In the case of universities, the ideology manifests primarily in the form of reductions in rates of funding per student, accompanied by the mantra of management efficiency. While the spin-doctors ply their sophistries to deny claims about funding-cuts on the ground that total funding has increased, ignoring the fact that funding per student has fallen markedly, it is abundantly plain to anyone actually working in a university that this is political distortion at its worst.

As problem-based learning is often believed to be more expensive than traditional education, this kind of context raises the question of what role, if any, there is for the practice of problem-based learning. This belief is dubious (e.g. Mennin & Martinez-Burrola, 1986, Aldred et al., 1997). In any case, despite the currently impoverished context, problem-based learning continues to be introduced in many new school and university programmes of study. This may seem like a welcome development in a very unpromising context. In some respects it is, but it is also something of a double-edged sword. On the one hand, problem-based learning can be a serious threat to educative learning in so far as it serves merely as a willing tool for narrow economicist-rationalist-technicist ideologies, a merely convenient instrument for indoctrinating students into assumptions and presuppositions never questioned in their particular areas of study.

By ideologically economicist-rationalist-technicist (or, more briefly, ERT), I mean roughly a belief that the ideology is economicist in its exclusive or near-exclusive concern with the financial, profit-oriented "bottom-line" as the definitive statement of the health or otherwise of a human activity; that it is rationalist in holding that persons can be viewed essentially as consumption-valuers seeking to maximise their consumption in a market guided by an invisible hand that must be allowed free rein (and reign); and that the centrally important questions have to do with how to do things rather than with what things should be done or, in other words, with means rather than with ends. I regard this combination of characteristics as ideological in that it is a distortion. That is, economics, rationality, and technical matters may all be perfectly sound and indeed vitally important to human life; but when they are taken to narrowed, exclusive, or unbalanced extremes they become economicist rather than economic, rationalist rather than rational, and technicist rather than technical. In such cases they become pathologically ideological.

On the other hand, problem-based learning can also be the way par excellence of integrating critique of ideology underlying the varied explicit curricula presented in formal courses in education, arts, humanities, science, engineering, medicine, or whatever, in such
a way that understanding and practice are integrated for the purpose of enhancing the quality of life.

In other words, problem-based learning can be the most deeply educative form of learning available. But it can – as in the case of any form of learning, including much of traditional education – also be misused as an uncritical, anti-educative means which, in the long run, reinforces the interests of the rich and powerful against the interests of the poor and exploited. The current context would seem to exacerbate sharply the anti-educative threat. Given the character of ERT ideology, the attractiveness of problem-based learning to it is not hard to see.

The occurrence of problems is a common experience in human life. The most obvious problems arise in the everyday context of attempting to do things – you’re late for work, the car won’t start and you have no idea why, for example. This is a question about means, not ends - there is no question of the need to get to work, only of how to get there. Somewhat similarly, though of course in hosts of more varied and often more complex ways, unforeseen problems occur within working life itself. Not surprisingly, organisations prefer to employ people who can cope well with problems when they do arise. Graduates of traditional education are often seen, especially by employers, as lacking qualities such as an ability, at least initially, to make use of their formal learning in the context of work, the ability to communicate well, the ability to co-operate effectively, the ability to identify and tackle unforeseen and unfamiliar problems, and so on. Problem-based learning incorporates the acquisition of these qualities as a normal part of learning. Graduates who arrive in employment already able to adapt to context-specific aspects of work, rather than requiring a lengthy period of transition from abstract academic study, are clearly desirable. Professions and other employing organisations outside universities typically want those who work in them to begin to be productive as soon as they join the organisation. In a word, they are looking for efficiency.

Students seeking employment after graduation, or even during their studies, in a highly competitive employment market are likely to be attracted to courses providing the qualities sought by employers. At the same time, in the current economic rationalist climate universities compete vigorously for students. It would seem to follow that courses of study offered in the form of problem-based learning would attract students keen to gain employment, and universities might be expected to change accordingly. From the points of view of employers, universities, and students, then, problem-based learning appears useful. It appears to be an efficient and desirable form of learning.

But introducing change into universities is notoriously difficult. Change remains difficult despite – or, one might hope, because of – all the superficial rhetoric about customers rather than students, about the management of learning rather than teaching, about universities as businesses, and the like. From the point of view of economic rationalist efficiency, then, what better way to bypass what are perceived to be obstructive, consultative, collegial processes of decision-making in universities than by adopting a strongly directive, centralist, top-down corporate managerialist form of decision-making? For then universities can be brought to act more like businesses, responding efficiently to changes in the market-place, jumping at opportunities to make a profit in emerging areas, sacking staff in areas perceived to be not valued by the market, and so on.

But does anything useful follow from this critical sketch of university policy and practice? For are not claims about the educative or other value of learning merely value judgements? Are value judgements not merely subjective matters of personal opinion? And do practical necessities not require efficient management, a financially viable operational basis, and the accountability of education to wider society – particularly in view of the enormous investment
in education? At one level, the response to such questions could, for example, point out that efficiency is not undesirable in itself – other things being equal, efficiency is obviously better than inefficiency. But the qualification "other things being equal" is crucial. Efficiency is not the only desirable value. Other values may conflict with it – values of justice, social equity, fairness, health, happiness, and many others are held by many people to be of greater worth than efficiency (Inglis, 1989). And even if values were entirely subjective and no more than matters of personal opinion, acting according to values usually has consequences which can be appraised factually.

However, at a deeper level the assumption that values are merely subjective and matters of personal opinion needs to be tackled head on. To begin with, it must be made clear that some values may be merely subjective and a matter of personal opinion. But that is true of only some values. It is not true of all values. Let us consider, first, how this can be so and, second, some implications for education, problem-focused education in particular (I use the term "problem-focused education" to indicate a richer and deeper understanding and practice of problem-based learning than is usually the case).

First, then, let us consider how a valid and important connection can be made between values and facts – important, that is, for practical matters such as education as well as for wider matters concerning human well-being. A powerful means of doing so is provided by Bhaskar and others (Archer et al 1998) who have shown that explanatory critique makes the connection clear. Essentially, this involves showing, on the basis of sound theoretical and empirical work, that a commonly believed explanation of a certain state of affairs is false; that, nonetheless, people continue to believe the false explanation; that an alternative explanation, which is in fact true or truer, exists and that there is a sound explanation of why, despite the availability of a better explanation, people persist in believing something false; and that two things are entailed by this, one, the causes of their holding the false belief must be evaluated negatively, and, two, rational action to remove the causes of false belief must be evaluated positively, other things being equal. An outline of how this may be done, assuming that the relevant theoretical and empirical work had been completed, is given in Figure 1.

Figure 1: Outline example of an Explanatory Critique

<table>
<thead>
<tr>
<th>1st problem</th>
<th>Problem P</th>
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<tbody>
<tr>
<td>Problem</td>
<td>P: Why are universities under severe financial strain?</td>
</tr>
<tr>
<td>Proposed explanation</td>
<td>E: Their subjection to severe financial strain is explained entirely by their inefficiency and inability to act commercially.</td>
</tr>
<tr>
<td>(A) Critical condition</td>
<td>But the proposed explanation E is false.</td>
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(E2: An explanation closer to the truth lies along the lines that the critical, open, and open-minded purposes of higher education have been subverted and replaced by an impoverished commercial model in a kind of asset-stripping exercise for the financial benefit of a minority.)
### Vital aspects of this example include the following:

- This example is about facts and theories related to facts;
- That truth is better than falsity is a necessary condition of meaningful thought, not an ‘added’ value-judgment;
- Sound judgment requires critical evaluation;
- The negative and positive value-judgments in the example follow from the truth and falsity of the claims involved; they are not merely personal opinions added irrespective of the facts of the case.

It is also vital to note that the action indicated in the positive evaluation in the example must not be adopted thoughtlessly; it is subject to a *ceteris paribus* clause (i.e., other things being equal). That this must be so is clear from the consideration that conclusions following from the argument of an explanatory critique as described above in its barest form hold only where more important considerations do not over-ride the imperative to act. For example, the film *Schindler’s List* depicts systematic acts of deception carried out in order to save people from terrible abuse and death. While deceit is to be evaluated negatively, in the

<table>
<thead>
<tr>
<th>2nd – related – problem</th>
<th>Problem P*</th>
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<tr>
<td><strong>Related problem</strong></td>
<td><strong>P</strong>: People persist in believing that inefficiency and inability to act commercially explains the severe financial strain on universities although this explanation is false. Why, then, do people continue to believe it?</td>
</tr>
<tr>
<td><strong>(B) Explanatory condition</strong></td>
<td><strong>E</strong>: (i) Powerful groups in society, who value individual commercial gain above all else, dominate decision-making in financial &amp; other institutions controlling material means to well-being, control the media &amp; public relations/propaganda activity, and influence inordinately the general direction of the development of society.</td>
</tr>
<tr>
<td>The explanation $E^<em>$ of further problem $P^</em>$ &amp; Fact $\cap$ Value ($F \cap V$) entailment</td>
<td>(ii) This dominance has a functional purpose: it diverts attention from the real explanation of severe financial strain on universities - this is systemically to the advantage of those in control of commercial and related activity, and to the disadvantage of others.</td>
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<td></td>
<td>Hence (this entails):</td>
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<td></td>
<td>(iii) <strong>Negative</strong> evaluation, since dominance in commercial and other social activities disadvantages non-dominant groups.</td>
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<tr>
<td></td>
<td>(iv) <strong>Positive</strong> evaluation: Rational action to remove such dominance is of positive value (<em>other things being equal</em>).</td>
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circumstances depicted in the film the normal action of taking steps to remove deceitfulness would be over-ridden by the greater good of saving innocent lives.

The view that factual and evaluative considerations can be related coherently in this way is typically strongly resisted, especially in education. Sources of resistance include a dogmatic positivism from which values have been banished (except as unfortunate factors to be taken into account empirically, along with other matters regarded as beyond human control, such as diseases, earthquakes, and other natural disasters), to a fashionable post-modernity or post-modernism of one ilk or another in which any and every interpretation of anything is asserted to be valid – except, that is, any view denying the post-modernist's self-proclaimed truth. While positivism and post-modernism may seem to be radically opposed positions, behind their surface appearances they are curiously similar in some crucial respects.

For example, although some post-modernists like to advertise what they believe to be their progress beyond positivism and positivist science in particular, they appear along with positivism to remain entirely trapped within positivist ontology. Positivism of course acknowledges a difference between fact and value openly and explicitly. Post-modernists, however, appear to deny any real difference between the two, although their own practices contradict their textual assertions. They will, for example, allege theoretically that facts are to be treated in effect as a sub-class of values – while carefully evading serious discussion of the issue and dismissing condescendingly anyone who does not agree with them. At the same time, in their own practice they are quick to act on the distinction when it is to their advantage to do so. They thus assume the distinction in practice while denying it in theory. In a phrase, they fail to practise what they preach, and hide the fact behind a screen of high-sounding rhetoric which turns out on careful analysis to be largely vacuous. This absurd position arises only, it seems, because post-modernism has not escaped from positivist ontology although its adherents believe devoutly otherwise.

Put another way, post-modernism assumes a positivist ontology – essentially, that individual, atomistic facts exist and individual, atomistic values exist but are entirely different – and then, with a commendable desire to give a less demeaning account of values than positivism does but stuck with the positivist dichotomy between fact and value, the position can leave only one possible course open, namely, to collapse facts into values. This leaves the position with no way of evaluating contradictory claims independently of values, and since values are held by individual persons, the result is, at the level of language, a seemingly charitable, inclusive, and accommodating subjectivism where every claim, interpretation, or thought is equally valid. In reality, and in practice, however, the viciousness of this myth becomes apparent where, for example, individuals may occupy positions of power. Faced then with having to make decisions, but denied any reasonable way of evaluating contradictory claims because facts have been reduced to subjective values and all such values are taken to be equally valid, decisions can be made only on the basis of self-interested, atomistically self-referential, preferences. In this, the post-modern position matches precisely the only basis on which positivism can make decisions since, with its asserted logical gap between fact and value, positivism cannot establish any reasoned bridge between the two and, therefore, in matters of decision where values are central, decisions can be made only on the basis of self-interested, atomistically self-referential, preferences.

Such sources of resistance to a reasonable relation between facts and values have a clear attraction for a certain sort of management. Because both positivism and post-modernism lend support, in the ways outlined above, to a purely subjective basis for decision-making involving values; since some managers revel in the scope for the exercise of personal power and self-interest that a managerial position gives them; since many managerial decisions involve values; and since an ERT ideology seems to allow both facts and values to be
accommodated (on the positivist view, as entirely separate things, or, on a post-modernist view, as one thing, values, to which facts have been reduced) this ideology is congenial to a wide range of managers. Moreover, it is congenial not only to managers from the senior level down to the level of head of department. It is also all too evident at lower levels in positions which involve some institutional management activity, or even none but where, with an eye fixed firmly on individual career "progress", some individuals apparently see the opportunity for gaining recognition by managers as having learnt thoroughly what is expected of them institutionally.

This in itself may not, of course, indicate anything desirable or undesirable about the behaviour aimed at achieving the ambitions and interests of those concerned. But where values are entirely separated from facts, where values are seen to be entirely subjective and equally valid no matter what their nature, import, or effect, and where this is taken to licence any behaviour whatever, then perhaps the situation is not quite so clear cut. For in such a situation this version of value-neutrality seems sometimes to be taken to licence the most abominable kinds of behaviour. Particularly in regard to those placed in management positions, would there not seem to be a heavy responsibility for ensuring that highly dubious behaviour is not encouraged and certainly not exemplified by managers themselves?

Bullying and harassment, for example, are now recognised, at least in documents if not always in practice, as unacceptable. And a host of other abominable practices remain rife – for example, straightforward duplicity; hypocrisy; deliberate assertion of known falsehoods; abuse of positions of power; cronyism; exploitation of the those in casual and temporary positions; ignoring evidence when convenient to do so; refusing to consider important issues of academic and professional work; suppression and cover-up; denial of academic freedom (never verbally or in writing; but persistently in practice), and incrementally reforming organisational structures and processes to separate a privileged managerial class from an increasingly disempowered class of academic and administrative staff (while "snowing" people with the edifying-sounding rhetoric of "empowerment" as a diversion from their simultaneous disempowerment and non-voluntary intensification of work); the list could go on (e.g., Callahan, 1988, especially Ch 9, Dempster, 1997, Margetson, 1997, 2000a).

Such behaviour is thoroughly consistent with an ERT ideology, for such ideology is preoccupied with questions of how to get things done, not whether things are worthy of doing. In the case of the current state of universities, this behaviour can emerge as a desperate attempt to uphold and to give an appearance of legitimacy to the false belief that the subjection of universities to severe financial strain is explained entirely by their inefficiency and inability to act commercially. It is evident in the enormous energy institutions expend on developing and attempting to implement often very resource-expensive drives to increase "efficiency" and commercial activity, apparently infinitely, while questions of the worth or value of what is being done languish for lack of attention. This, it could be argued from the point of view of the contribution that sound, high quality university work could make to the wider community of which it is part, seems to be an irresponsible and craven abandonment of academic, professional, and social integrity.

The question, now, is what role, if any, problem-based learning could play in this dismal scene? The point has already been made that problem-based learning might be interpreted in ways which would serve an ERT ideology, and at least some instances of problem-based learning in practice seem to bear this out. However, problem-based learning embodies a structural feature lacking in subject-based learning, a feature which gives it a crucial educative advantage over subject-based learning. The difference centres on the question of what it is to know something. For subject-based learning propositions, or propositional knowledge, are central. Teaching is aimed at bringing students to knowledge of certain propositions. Propositional knowledge is believed to provide the secure and settled
foundations for application in, or to, practice. So, in the simplest kind of example, students learn that certain propositions are true, such as that the area of a rectangle can be obtained by multiplying the length and breadth of the rectangle together. Students can then "apply" this knowledge in practice by calculating areas of, say, rectangular rooms in buildings. The emphasis on propositional knowledge draws attention away from the provisional nature of knowledge (Popper, 1979) by giving the appearance of foundational certainty. What is often described as procedural knowledge is hardly any better in so far as it merely substitutes procedures for propositions while continuing to uphold an assumption of foundational certainty for procedures while leaving propositional content slightly more open.

Both fail to greater or lesser extents to recognise and acknowledge the inherently problematic nature of human life. For them, problems are peripheral matters entirely defined by, and secondary to, established foundational knowledge of a propositional or procedural sort. Academic learning replaces natural learning on a "knowledge first, application second" (Margetson, 1996, 2000b), spuriously foundational misconception of knowledge, understanding, and practice (Margetson, 1994). Typically, in a further flight from reality, it retreats into text alone, denying any intelligible connection between text and the real world. University life is thereby returned to a self-indulgent ivory tower for which, not surprisingly, wider humanity has little patience or tolerance. The supposed cure prescribed for the disease – namely, the imposition of a narrow ERT ideology on educational policy, practice, and governance – turns out to be worse than the disease itself, for in its lowest-common denominator approach to education it destroys the very qualities that sound university work could contribute to the life of the community. Widening access to higher education is highly desirable; but then restructuring the system – universities in particular – so that the system cannot achieve the vital purposes of higher education is the opposite.

In this context, an enhanced conception of problem-based learning – more richly and deeply understood as problem-focused education – has a potentially vital role to play. The potential centres on a proper understanding of the notion of a problem. Sometimes the notion of a problem is misunderstood in quite astonishing ways – as in the absurd proposal that learning should be "inquiry-based" rather than "problem-based", as if inquiry were not an integral and central aspect of problem-based learning. There is nothing in the concept of the problem itself which restricts its scope, depth, or range. Certainly the concept of a problem is relevant to things that have, so to speak, gone wrong; dealing with these is the typical "fix-it" view of problem-solving. But the concept of a problem is by no means restricted to such phenomena. In design problems nothing has gone wrong. These are problems which open up creative, positive possibilities; they are the opposite of negative. The concept of a problem can include the deepest, most profound, intractable, and significant matters of which human beings can be aware. Questions of the meaning of life, so easily dismissed in positivist hubris as meaningless, and overwhelmingly complex problems such as the sustainability of life on Earth under the assault our thoughtless exploitation of the natural environment is perpetrating on it, are certainly problems.

In the case of the false belief that universities are subject to severe financial strain entirely as a result of their inefficiency and inability to act commercially, it is plain that the question of why people continue to hold such a belief is itself a problem of major importance – most directly for the health of universities themselves, and more indirectly for society generally. Problem-based learning, through its inherent structure and the centrality it gives to the notion of a problem, unavoidably keeps the way open to questioning at whatever level is most needed – at least, this is so where an adequately rich notion of the nature of problems is understood, unrestricted by superficial positivist distortions or post-modernist evasions. As explanatory critique shows, to question at one level – which is to raise problems such as the whether a given explanation for the subjection of education to severe financial constraint is true or not – is to launch a process of questioning which can lead, first, to alternative, at least
truer if not always perfectly true, and hence better explanations and, second, at a deeper level reveal the need for deeper explanations as to why truer and better explanations are ignored, suppressed, or otherwise evaded.

Of course, the process can be artificially stopped at the first, superficial level. But to do so is to interfere in, and to truncate arbitrarily, a natural process of questioning that has already commenced, namely the educative process of identifying problems wherever adequately rigorous questioning may lead. There are many ways of doing this, including making use of only a certain limited kind of questioning – such as so often happens in institutional learning – where questioning is limited to seeking nothing more than a superficial yes or no answer, or a brief statement of information. These may be described as necessary-knowledge questions; they are certainly not problem-questions leading to deeper and fuller understanding. Critical reflection, time to think over issues arising from the information, and the like, are carefully avoided. This inhibiting tendency is intrinsic to subject-based learning with its assumption of propositional or procedural knowledge as primary. Problem-based learning – or, more fully, problem-focused education – by contrast, is structurally free of this anti-educative tendency because it acknowledges a more realistic understanding of knowledge as provisional and problem-focused. On this view – unlike the views of, for example, post-modernism flawed by the “epistemic fallacy” (Bhaskar, 1997) which collapses being into knowledge of being – epistemology is secondary to primary questions of ontology. The way the world is places limits on what we can know about the world – including ourselves and our societies, since we and our relations to other aspects of the world are as much part of the real world as the energy and matter studied in the natural sciences.

In conclusion, then, it would seem that the current direction in which universities are being pushed assumes an enormously flawed understanding of the value of university work, of its potential value for the life of the wider community, and an inadequate and destructive conception of the relation between fact and value which is taken, wrongly, to licence abominable behaviour in the misguided service of insupportable management practices aimed at furthering the current direction. The resulting restructuring and commodification of university work is in no one’s interest except that of a minority who stand to gain financially from the restructuring and commodification. It is difficult to see how universities could recover from such a sweeping and brutal assault. However, problem-based learning appears to offer the most promising possibility of recovery, at least in the long term – provided that it breaks free from such limiting, impoverished, and distorting misconceptions as positivism and its shadow, post-modernism, which fetter and stifle the understanding of what a problem is and of the educative potential of problem-focused education.
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