that needs to be put into question. For Althusser only repeats in Spinozist form the operation which is common to all epistemological theories of demarcation of science from other kinds of theoretical discourse. That is, to attempt to provide a philosophical justification for a particular social selection and hierarchical distribution of theoretical discourses, a certain 'regime of truth' in Foucault's phrase (26). This real, institutional demarcation among discourses organized into disciplines is certainly historically contingent and probably epistemologically arbitrary to the extent that, for example, a different conceptual system could have served as the basis for the physics which capitalism required in order to develop its mastery over the forces and means of production. It is also conditioned from end to end by the operations of political power. Althusser's conception of science, it seems, denies that contingency, that arbitrariness, and, insofar as he insists on the 'objectivity' of scientific knowledge, denies that it has any but external relations to political power.

Fundamentally the same operation is carried out by the empiricist alternative to Althusser's Spinozist absolutism, recommended by such diverse figures as Karsz and Lakatos (27). The proposed demarcation between science and ideology, or non-science, remains theoreticist, to the extent that it looks for differentiating features within the discourses themselves, their method or their conceptual structure. On this view, however, the difference is an empirical matter which must be formulated theoretically through the analysis of

particular sciences and particular ideologies. One is thus faced with the problem of how to conduct such an enquiry without having already a concept of the difference, and, more importantly, the question of where this prior concept comes from, if not from the existing social institutionalization, hierarchization and valuation of certain kinds of theory. This seems to have been the case with Popper, for example, who began his search for a demarcation criterion from the conviction that Marxism and Psychoanalysis were unscientific in a way that the physics of Newton or Einstein were not (28). Thus. from the standpoint of this broader perspective, Althusser's theoretical tactic of defending Marxism as a science occupies the same theoretical space as Popper's denunciation of it as a non-science some 30 years ago. The project of a theoreticist demarcation of science being common to both, Popper uses it as a weapon against Marxism, whereas Althusser simply takes up the opposing position. That is hardly a position likely to encourage reflection on the ideological role of the demarcation itself, or on that of the epistemological values claimed for those discursive formations accepted as scientific, their progressivity, rationality or objectivity. Such reflection is one of the essential tasks facing a historical, materialist theory of the sciences.

26 M Foucault, 'The Political Function of the Intellectual', Radical Philosophy

26 M Foucauit, 'The Political Function of the Intellectual', Radical Philosoph 17, summer 1977, pl3
27 S Karsz, ibid, p64, Lakatos, 'History of Science and its Rational Reconstruction' in Boston Studies in the Philosophy of Science, Vol. VIII, ed. R C Buck and R S Cohen, D Reidel Publ. Co, 1971
28 K R Popper, Conjectures and Refutations: The Growth of Scientific Knowledge, NY, Harper Torchbooks, 1973, p34

EDUCATION FOR INDUSTRY

Roy Edgley

Unlike other old folk who reach such an advanced age, compulsory universal education in England has not celebrated its centenary with a telegram of congratulations from the Queen. On the contrary, the Prime Minister, to say nothing of a range of lesser luminaries from the Secretary for Education down, has suggested that the quality of our education leaves a lot to be desired. Having examined and found wanting so many of its pupils in the past, the education system is now getting a dose of its own nasty medicine: it is widely said to be failing too many in a different sense, and itself needs to be taught a lesson. Who will educate the educators? Chiefly, it seems, industry. By the standards set by industry, the quality of our education is inadequate, and only by aspiring to them will it reach the required heights.

These doubts about the quality of education have been of two general kinds, both springing from the conviction that between education and industry there is a 'gap' where there should be 'links'. On the one hand, it's said that students are not reaching high enough levels in the subjects they study, and in particular that they are falling short in both literacy and numeracy. On the other hand, the subjects they study, especially at the more advanced stages, are in many cases of the wrong sort: too much of the arts and humanities, too little science, mathematics, and technology. I shall be concerned chiefly with the former.

One fairly predictable response to this opening of 'the great debate' has been horror at the conception

of education involved in the criticism, though the reaction has for some been tempered by acknowledgement of our dire economic crisis and of society's right, as paying the piper, at least to some extent to call the tune. We should not, it seems to have been felt, dig in our heels too stubbornly against the proposed changes, provided they are recognised as a temporary and partial adjustment to meet an emergency, neither permanently nor wholly diverting education from its real ideal: knowledge and learning for their own sake, or cultivation for leisure, or the initiation of the young into our cultural heritage, or the conversion of barbarians into rational autonomous beings fit for our liberal democratic civilisation. On this view, quality in education is defined in terms of standards set not by industry, nor by any other part of the vulgar economic business of producing material goods, but by high culture, that is by pure science and mathematics, philosophy and history, literature and the arts. The standard curriculum signifies the continuing influence of the Aristotelian ideal of liberal education, the education of a gentleman, its vocational content both incidental and restricted to 'the professions', law, medicine, civil service, church, and teaching itself.

I will return to that. First, let us look more closely at the contrary claim, that an essential measure of quality in education is its success or failure in turning out people with the abilities and skills required by industry. The view I want to focus on is not directly that, but an underlying assump-

tion common to both those who make the claim and to many of their opponents: the assumption, namely, that modern industrial development requires an increasingly skilled workforce whose educational demands have outstripped the abilities supplied by schools, colleges and universities. Mr Callaghan said it in his speech at Ruskin College on 18 October 1976: 'In today's world, higher standards are demanded than were required yesterday and there are simply fewer jobs for those without skills. Therefore more is demanded from our schools than in our grandparents' day.' Mrs Shirley Williams repeated it at the Rockingham College of Further Education four days later: 'We must not forget that whether or not standards have been maintained, requirements are constantly rising. An increasingly complex society demands better educated and trained young people.' I shan't bother to quote on this subject any representatives, aristocratic, academic, or otherwise, of 'the stupid party': it's common knowledge that they have been urging this truth for many years, in pursuit of their aim of making education a more smoothly functioning component of the capitalist system. Not only the Right and the Centre, but also some of the Left, share the assumption. For instance, in his Marxist Perspectives in the Sociology of Education (Routledge & Kegan Paul, 1974), Maurice Levitas writes (p28): '... our industrial society's economy is demanding a progressively higher proportion of highly qualified personnel in the labour force... Industrial society in its most recent developments constitutes a culture which cannot accept, in the long run, the belief that only a tiny proportion of its children and young people can grasp the meanings which inhere in higher education.' The Crowther Report made the point as far back as 1959: 'The growth in the proportion of highly skilled jobs and the decline in proportion of unskilled jobs imply a reassessment of what must be attempted by people of only average intelligence.'

Humanisation of labour

The general situation that forms the background of this consensus is indisputable. The mode of production is becoming increasingly technological, systematically and consciously incorporating our growing scientific knowledge as a productive resource. The process by which machinery powered by natural forces progressively diminishes the grime, sweat, and toil of physical labour also raises the intellectual content of work as a whole; and it's easy to suppose that because the former change is distributed throughout the mass of jobs, so also is the latter. For statistics show some significant changes in the overall composition of the industrial workforce this century: first, a vast growth in the ratio of 'administrative' to 'production' jobs; second, an absolute and proportionate increase, within administration, of technologists, i.e. engineers, scientists, designers and technicians; third, as part of this growth of administration, a big increase in the proportion of clerical, service and sales workers; and fourth, within the category of manual workers, a reduction in the proportion of labourers and a corresponding increase in the proportion of craftsmen and operatives. All of this, confirmed by the statistics, suggests a proportionate reduction in the number of unskilled jobs and an increase in the number of skilled and semi-skilled jobs. Hence the picture of industrial capitalism as the engine of general intellectual advance throughout the community: as manufacture climbs the

technological slope it requires more intelligence; a gap is opened up between its demands and the available skills supplied by the education system; and if we establish links across that gap, industry may drag education up to its own continuously advancing intellectual level. We move towards the dream of theorists of post-industrial or technological society: a 'knowledge society'.

Let's ignore the observation that while British industry produces so much unemployment it might be better served by education for leisure. As far as 'the great debate' is concerned, we can say that the overall educational quality of work made available by industry is a function of two magnitudes, one intensive and the other extensive: the degree of skill of each type of job, and the number of jobs of each type. For instance, manual workers in industry form about the same proportion of employees now as they have done for several decades, but within that category the propórtion of labourers has steadily declined while the proportion of craftsmen and operatives has correspondingly risen; and this has been taken to show that the ratio of skilled and semi-skilled to unskilled manual jobs has risen. But as Harry Braverman points out in his remarkable book Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century (Monthly Review Press, 1974), these concepts of skilled, semi-skilled, and unskilled work, aligned with the classification of industrial manual workers into craftsmen, operatives, and labourers, are highly questionable. Indeed, philosophers who specialise in 'conceptual analysis' would do well to meditate on his argument (Chapter 20) as an example of really substantive analysis of concepts.

Capital & Class is the Bulletin of the Conference of Socialist Economists. Subscribers become Members of the CSE and receive in addition to the journal a Newsletter, which provides information about CSE meetings and activities, including the annual conference. There are local groups in many places in Britain, as well as links with groups in other countries. Working groups cover topics such as Money, Social Policy, Law, State Expenditure, Neo-Colonial State, and industries such as Motors, Energy and Oil.

In its first year of publication Capital & Class has contained articles

No. 1: LABOUR PROCESS (Brighton Groups), WOMEN WORKERS IN WARTIME (Summerfield), ECONOMIC CRISIS & CLASS STRUGGLE (Pannekoek), SOVIET SOCIETIES (Rakovski).

No. 2: WORKERS' INQUIRY INTO THE MOTOR INDUSTRY, POULANTZAS' THEORY OF THE STATE (Clarke), CAPITAL CRISIS & THE STATE (Holloway/Picciotto), THEORIES OF USE & EXCHANGE (Grossmann), INTERNATIONAL TRADE UNIONISM (Olle/Schöller), PATRIARCHY (Mackintosh).

No. 3: MODES OF PRODUCTION (Banaji), MODERN LANDED PROPERTY & RENT (Murray), WOMEN & WAGE LABOUR (Beechey).

SUBSCRIPTION RATES

Individuals: UK Full E2.50; Low Income E2.00. Overseas Full E6.00 (or \$9.50); Low Income £4.00 (or \$6.50). Institutions: £9.00 (\$14.50).

Australia: subscriptions to Transnational Co-operative (CSE), GPO Box 161,

Sydney, NSW 2001. Rate: \$A10 (full rate), \$A7 (reduced rate). \$A15 (Institutions).

If payment is made by non-sterling cheque, please add 50p or equivalent for bank charges. Special arrangements can be negotiated for overseas subscriptions in cases of financial or foreign exchange difficulties. All subscriptions and queries to CSE Membership, c/o Dept. of Economics, Birkbeck College, 7-15 Gresse Street, London W1P 1PA.

Anyone who has ever done any factory work, or who knows closely anyone who has, will already have begun to question these questionable concepts and the accompanying theory of industry's rising educational demands. In case any readers of this article don't fall into either of those two classes, I'll remind them of the literature on worker alienation, with its extensive evidence that for most workers industrial work involves fragmented, repetitive, and boring activities that engage next to nothing of their intelligence, responsibility, or initiative. A recent example of this literature is Studs Terkel's Working (1974), in which, for instance, one of the people he interviewed, Nora Watson, says 'Most of us, like the assembly line worker, have jobs that are too small for our spirit. Jobs are not big enough for people'.

De-skilling

At the very outset of the Industrial Revolution Adam Smith's Wealth of Nations both described a powerful debilitating tendency in the growing division of labour under capitalism and proposed State education as a remedy: 'The understandings of the greater part of men are necessarily formed by their ordinary employments. The man whose whole life is spent in performing a few simple operations .. has no occasion to exert his understanding.. He generally becomes as stupid and ignorant as it is possible for a human creature to become... The uniformity of his stationary life naturally corrupts the courage of his mind... It corrupts the activity of his body and renders him incapable of exerting his strength with vigour and perseverance in any other employments than that to which he has been bred. His dexterity at his own particular trade seems in this manner to be acquired at the expense of his intellectual, social and martial virtues. But in every improved and civilised society, this is the state into which the labouring poor, that is, the great body of the people, must necessarily fall.' As Marx impishly adds after quoting this passage, 'For preventing the complete deterioration of the great mass of the people by division of labour, A. Smith recommends education of the people by the State, but prudently and in homoeopathic doses' (Capital, Book I, Part IV, Chap XIV).

Like a number of distinguished modern educationists, then, Adam Smith saw industrial capitalism as requiring not more but less skilled manual workers, and State education as necessary not for supplying industry with intelligence but on the contrary for counteracting industry's tendency to stupefy labour. The 20th century confirms this early diagnosis of the capitalist work ethic. At its opening stands Ford's practical invention of the assembly line and

Taylor's theory of scientific management, with the Taylor-Gilbreth conception of time and motion study treating the worker as an adjunct of the machine: all point inexorably to the de-skilling of labour.

Automated salvation?

But is this tendency itself being overtaken by a crucial new development, the growth of 'postindustrial' society? Some educationists, e.g. Entwistle in his Education, Work, and Leisure (Routledge & Kegan Paul, 1970), have seen automation as a qualitatively different factor from mechanisation. With mechanisation, 'industry requires people to be unthinking automata; it is the graveyard of enterprise and skill' (p7). But 'automation makes it possible and desirable for increasing numbers of people to function in professional or quasi-professional terms in jobs which require the exercise of judgment, intelligence, and skill' (p30); and 'The expansion of work opportunities which can be a consequence of the automation of industry will certainly require from workers much greater knowledge, intelligence and skill' (p43). What evidence is there that automated industry, when we get it, will require higher levels of intelligence and skill? I mean evidence, not a priori arguments that it must be so, nor the propaganda of those with a career-stake in automation. On what I take to be the fairly plausible assumption that automation in America is ahead of automation in England, and because evidence on this subject is so scarce by comparison with utopian assumptions and advertising, I refer the reader to one of the few serious students of the topic, James R Bright, of the Harvard Business School. Aware of the wishful thinking, Bright prepares us for his conclusions as early as the preface of his book, Automation and Management (Boston, 1958): 'A controversial area of this study will lie, no doubt, in my conclusions regarding the skill required of the work force in the automated plant. The relationship of skill requirements to the degree of automaticity as a declining rather than increasing ratio is not commonly accepted, or even considered.' In the conclusion of his paper 'Automation and Skill Requirements' (National Commission, The Employment Impact of Technological Change), Bright states the consequences for educational demands: 'I suggest that excessive educational and skill specification is a serious mistake and potential hazard to our economic and social system. We will hurt individuals, raise labour costs improperly, create disillusion and resentment, and destroy valid job standards by setting standards that are not truly needed for a given task.' I shall come back to that.



Unintelligent skills

For a realistic view of industrial skills we need only to turn to someone intimately involved in their systematic analysis and the consequent design of training programmes for workers: W. Douglas Seymour, author of Industrial Skills (Pitman, 1966). Seymour does his best to convince us of the accomplishment of skilled workers in industry. But his own words too often qualify the praise. First, summarising results of training experiments on machine operations, specifically the capstan lathe, he says, 'There is no evidence to indicate that intelligence plays much part in the ability to learn tasks of this sort' (p143); and later, in a summary of findings about industrial skills and their acquisition, 'Intelligence, as measured by non-verbal intelligence tests, has been found to have no significant influence on the trainee's acquisition of skill, e.g. on the capstan lathe' (p166). Indeed, one of the book's major themes is that the key process by which an industrial worker's skill improves is 'the change of sensory channel to one which either will provide the information more immediately or will free an otherwise overloaded channel... The commonest example ... is the use of proprioceptive channels instead of visual channels, as when, in learning to ride a bicycle, we learn to pedal without watching our feet' (p147). Second, 'the primary criterion of skill throughout these observations was that of (worker) productivity, i.e. the rate of performance or speed of carrying out the task satisfactorily... Most people can perform most of the tasks which are required of semi-skilled operatives in industry, but most people either fail completely to perform such tasks to the standard of speed required, or take an unconscionable time in acquiring the speed skills. From an industrial viewpoint, the time required to attain a satisfactory standard of performance is important...' (p145). Speed is vital not only in performance but also in acquisition of skill, and carefully designed training programmes based on thorough analysis of industrial skills, and replacing the traditional method of learning known as 'sitting by Nellie', are described as reducing the necessary training time e.g. from sixteen to five weeks, from twelve to four or three weeks, from nine to four weeks, and so on. Third, the final stage in the acquisition of an industrial skill is described as 'Diminishing Conscious Attention': 'A final integration of performance occurs when the operator 'triggers off' a whole series of responses to a single signal... Such 'triggering. off" occurs frequently on industrial tasks... There also occurs at this stage a psychological change in the organization in so far as the incoming

NEWS FROM NEASDEN

A CATALOGUE OF NEW RADICAL PUBLICATIONS

News from Neasden is advertising disguised as bibliography. 'However that may be, it contains in convenient form much information on new radical publications (books, pamphlets, reprints etc) which should be useful to publishers, booksellers and bookbuyers alike.' Monthly Review. November '76. News from Neasden is published in February, August and October and sent free to bookshops. We charge publishers for entries. Since the February '77 issue we have included about 3,000 words of 'real' reviews. We hope to increase this as we get more bookshop sales and subscriptions. The annual subscription is £1 or \$2. Libraries £3,00 or \$6.

22 FLEET ROAD, LONDON, NW3 2QS

information begins to "short circuit" the stage of conscious attention and gives rise to appropriate action unconsciously... In industry this stage of skill is sometimes referred to as "experienced workers' habit" in contradistinction to "experienced workers' speed". The latter, attained with conscious attention, may be as fast as the former, but is seldom so consistent and presumably involves more "effort" (p152).

So industrial skills, on this account, require no particular intelligence, can be learned in four or five weeks or less, and are properly exercised without conscious attention. It would be difficult to imagine anything less capable of providing criteria of quality in education. Education seems the very antithesis of industry.

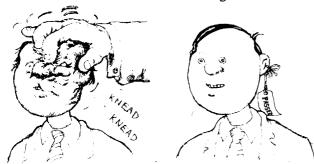
Appendages of the machine

In what way, then, is the content of the production process more intellectual? As Braverman points out, 'The question is precisely whether the scientific and "educated" content of labor tends towards averaging, or, on the contrary, toward polarization. ... The mass of workers gain nothing from the fact that the decline in their command over the labor process is more than compensated for by the increasing command on the part of managers and engineers. On the contrary, not only does their skill fall in an absolute sense (in that they lose craft and traditional abilities without gaining new abilities adequate to compensate the loss), but it falls even more in a relative sense. The more science is incorporated into the labor process, the less the worker understands of the process; the more sophisticated an intellectual product the machine becomes the less control and comprehension of the machine the worker has. In other words, the more the worker needs to know in order to remain a human being at work, the less does he or she know' (p425).

In rational activity, brain controls hand, and craft work unifies this hierarchical relationship in the person of the craftsman, whose hand is thereby under his own authority. Capitalism hierarchically divides capital from labour, subordinating labour to the power and authority of capital, and in its specific mode of the division of labour divides the controlling brain from the subordinate hand in accordance with its own hierarchical structure: since 'hands' need managing, the system inevitably tends to suck the intelligence out of labour and concentrate it in authority on the side of capital. represented by management and machinery. In Marx's words: '... once adopted into the production process of capital, the means of labour passes through different metamorphoses, whose culmination is the machine, or rather, an automatic system of machinery... The worker's activity, reduced to a mere abstraction of activity, is determined and regulated on all sides by the movement of the machinary, and not the opposite. The science which compels the inanimate limbs of the machinery, by their construction, to act purposefully, as an automaton, does not exist in the worker's consciousness, but rather acts upon him through the machine as an alien power, as the power of the machine itself... The accumulation of knowledge and of skill, of the general productive forces of the social brain, is thus absorbed into capital, as opposed to labour, and hence appears as an attribute of capital... In machinery, knowledge appears as alien, external to him (the worker)...' (Grundrisse, trans. by Martin Nicolaus, Penguin, pp692-95).

We should perhaps add to this that not only does

the scientific knowledge involved in the production process 'not exist in the worker's consciousness' but, as we have seen, the worker's consciousness, as consciousness of what he is doing in his job, itself hardly exists at all. Notoriously, industrial workers who exercise their skill without conscious attention compensate for the boredom of their work by exercising their minds in the only way possible under these conditions, in the escapism of daydreams and fantasies, a process sometimes encouraged by such distractions as 'music while you work'. In his Culture, Industrialisation and Education (Routledge & Kegan Paul, 1968), G H Bantock rightly describes as naive John Dewey's idea that industrial work could release the mind 'for a higher order of



thinking', but is himself equally naive in rejecting this possibility on the grounds that 'most people' (in this case industrial workers) are incapable of 'logical thinking' and have interests of an affective rather than an intellectual kind (pp69-70). The presumption of this view is that somebody who is capable of 'logical thinking' could exercise this capacity while working as a machine operative. Bantock should try it, and let us know which side of his own divide he falls on.

Like the change within the composition of the category of industrial manual workers, the increase in the proportion of clerical, service and sales jobs relative to those in manual work as a whole represents a growth in physically light and clean work, and in this case moreover a growth in 'administration' relative to 'production', much of it 'office work' and 'white collar'. Again the temptation is to associate this change with an advance in the skill and intelligence required of workers, office work being traditionally located on the side of management and brain rather than on the side of 'manual labour'; but again the evidence reveals a powerful tendency towards de-skilling as the organisation of offices is progressively rationalised on the principles already applied to factories, the work itself inexorably degraded by hierarchical fragmentation and mechanisation, which extract its content of intelligence, responsibility, and initiative, and with them promotion prospects. If those jobs require a basic level of literacy and numeracy, that casts doubt on the assumption that the ability to read and write is in itself an essential measure of educational quality, rather than a necessity imposed upon us. through the schooling process, by societies like ours.

Great Training Robbery

Assuming again that the American experience is relevant, and ahead of the British, we should reflect on the warning comprehensively argued in Ivar Berg's Education and Jobs: The Great Training Robbery (Praeger, 1970). In the words of Eli Ginsberg's summary in his Foreword: 'His most critical finding is that with the passage of time there has been a tendency for a larger group of

persons to be in jobs that utilize less education than they have.' Attacking 'the education craze', and what he calls 'the popular assumption ... that widespread technological change in America is responsible for the demand for better-educated workers' (pp82-3), Berg claims that "'Achievements" appear to have exceeded requirements in most job categories' (p14) and records his 'suspicions about the wisdom of using educational credentials as a screening device' (p80). 'The ''quality'' argument', he says '... had not been impressive ... neither were arguments that jobs were changing so fast in content as to require better-educated people ... educational achievements were changing much more rapidly than jobs ... a finding that induced cautious interpretations about the "automation revolution"... Other data increased our suspicions that there may be a significant margin of education that goes beyond what employers need even for good plant and corporate performance... The National Industrial Conference Board ... is probably right when it concludes from its data that "... Employers may have tailored their requirements to match the qualifications of ... labor''' (pp80-81). Thus it precisely is not the case, as alleged by John Cunningham, writing in the Guardian's series 'Schools for the Job on Wednesday 3 November 1976, that though 'Overall, companies say they are not being handicapped by labour problems at the moment... The Prime Minister's worries are most surely founded in the statistic which shows 30,000 vacancies at universities and polytechnics for science and engineering students.' What this signally fails to recognise is the possibility that such a 'foundation' is itself based on the same ideological mystification as the 'worries' it is supposed to support: the existence of those 30,000 vacancies in higher education may reveal something about the policy of 'manpower planning' in accordance with which science and engineering faculties have been expanded, but it proves nothing about the needs and capacities of industry.

Schooling in deference

Why would employers seek to employ, and pay for, workers with more education than they need for the job? Given Berg's crude measure of educational achievement, number of years of schooling, we may suspect here that with characteristic hard-headed realism employers regard schooling as functioning in the way Illich suggests, as an agent of subordination to established authority. If so they may have been disappointed. If Berg is right, employers are not only paying excessive rates in accordance with inflated educational criteria, they are also getting inferior workers: more educated employees tend to be both more dissatisfied with their jobs and less efficient in terms of productivity, turnover, and absenteeism. It is of course evident, as is pointed out by the Schools Council Working Paper, No. 7, 'Closer Links between Teachers and Industry and Commerce' (1966), that employers seek certain qualities of character and personality among their workers, especially obedience, a sense of discipline, and loyalty. But ten years ago, at any rate, British employers, presumably in contrast to their American counterparts, drew a distinction between these characteristics and academic ability, and valued the latter less highly, it seems, than their present descendants: as the Working Paper says, 'Teachers were impressed (sic) by the fact that many employers were prepared to forgo high academic attainment in favour of well developed personal qualities'

BLARIG

A Journal of Radical Perspectives on the Arts

Ten Theses on the Failure of Communication in the Plastic Arts by Kenneth Coutts-Smith

A Measure of *The Measures Taken:* Zenchiku, Brecht and Idealist Dialectics *by Roger Howard*

Beneficent Roguery: The Detective in the Capitalist City by John M. Reilly

Toward a Theory of the Lyric: Georg Lukács and Christopher Caudwell by Eileen Sypher

In the Belly of the Monster: The Filipino Revolt in the U.S. by $\it E. San Juan, Jr.$

My Education by Carlos Bulosan

٠,

"Be American" by Carlos Bulosan

Ideology as Demiurge in Modern Art by Ferenc Fehér

Preliminary Notes on the Prison Writings of Gramsci: The Place of Literature in Marxian Theory by Jean Thibaudeau

The Theater of Pirandello by Antonio Gramsci

Brecht and the Dynamics of Production by Marc Zimmerman

The Marxism of Lucien Goldmann in The Philosophy of the Enlightenment by Norman Rudich

Visions of Defiance: Work, Political Commitment and Sisterhood in Twenty-One Works of Fiction, 1898-1925 by Nan Bauer Maglin

Painting and Ideology: Picasso and Guernica by Bram Dijkstra

Salvation and Wisdom of the Common Man: The Theology of *The Reader's Digest by Ariel Dorfman*

The San Francisco Mime Troupe Commemorates the Bicentennial with False Promises/Nos Engañaron by Theodore Shank

Single copies for \$3.50 and subscriptions (two issues) for \$7.00 (add \$1.00 outside North America) are available from *Praxis*, P.O. Box 207, Goleta, California 93017 USA. *Praxis* is distributed in the U.K., Europe and the Commonwealth by Pluto Press, Unit 10 Spencer Court, 7 Chalcot Road, London NW1 8LH, England. Bookshop price: £2.20; subscriptions £4.

(pp11-12). What has happened in these last ten years to change that industrial demand for an army of submissive morons? Given the stagnant state of British industry over that period, unions more ready to use their political muscle, and the ferment in education, from the student protest movement of the late 1960s down to the recent affair at William Tyndale, the evidence points strongly to the suspicion that behind the current industrial demand for a more educated workforce lies the hope that more education of the kind suggested will help to restore among students the discipline needed in the subordinate ranks of industry's political hierarchy. It is no coincidence that the demands for minimal levels of literacy and numeracy, together with a shift from those centres of student unrest, arts and social science, towards the more conformist natural sciences and engineering, should be combined with an attack on 'progressive' education and a call to return to more formal methods of teaching. The real meaning behind the words 'More education' is: 'Less insubordination'.

Education vs. Industry?

The words themselves contradict their meaning. Education is essentially subversive, and its subversive potential can be contained only by the special social institution of schooling. Contained but not eliminated; and the tensions take a particularly acute form in the conflict between an expanding education system and a mode of production which, as its own educational content expands, concentrates that content on the side of capital and progressively de-skills labour. The conflict is reflected in various attempts at resolution, from the institutional separation between minority higher education and universal schooling to the theories of educationists

who reserve real education for an elite and consign to the schools the job of 'socialisation', or training of the emotions, or for leisure and hobbies. All bear witness in their own way to the fact that for most people in our society, the work they do, the fundamental activity that takes up half their waking time and decisively shapes their whole life, is not fit for human beings. The real but suppressed question is not how education can convert barbarians into rational autonomous individuals fit for our liberal democratic civilization, but rather whether our liberal democratic civilization, which is the civilisation of industrial capitalism, is fit for people: people who, far from beginning life as barbarous egoists needing socialisation, begin as social beings and are 'socialised' into alienated individuals.

Measured in Berg's crude terms the so-called 'gap' between industry and education is in fact an ""inconsistency" between education and occupation" (p119). In terms of the standards of quality involved in the school's commitment to high culture, education is indeed the negation of industrial capitalism, but its 'harmless negation', a negation entirely in the head. The ideals and values of literature, art, and pure science, replacing religion, distract the mind of society from its industrial work: they constitute the bourgeois counterpart of pop culture, and both cultures represent at the social level the machine operative's escapist fantasies and express the same alienating character of the mode of production. But the progressive transformation of scientific theory into technological practice, as we see, is making it increasingly difficult for education to avert its gentlemanly gaze from the vulgar realities of advanced commodity production, in which knowledge descends from the cosmological heights and assumes material form in the economic base as a resource involved in the production of commodities, and in the process itself is appropriated as a commodity, produced and distributed by the education system. Education should stop trying to avert its gaze. The invitation to establish 'closer links' with industry should be accepted with both hands but also with the head; not, that is, on the terms usually assumed in 'the great debate', which according to John Fairhall's account of the Education Secretary's conception sets itself the question 'how education can improve the image of industry' (Guardian, Thursday 25 November 1970). No doubt most industrialists and some in education will see that question as identifying the 'link' required. But the contradictions of capitalism are reflected in all the sectors of society, and 'the great debate' will define one more site of the continuing political struggle. As education inevitably establishes links with industry, many teachers and students, certainly the socialists among them, will resist the cosmetic operation being planned, and will insist on raising the question 'Education for industry, or - in its present form - against it?'

