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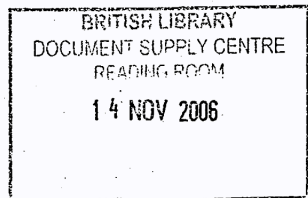
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EDUCATION, PHILOSOPHY OF

The problems of education are legion and reach fundamental issues in the theory of learning and teaching, motivation, development, ETHICS, the nature of knowledge and skill. The philosophy of education also embraces issues in social and political spheres. What are the aims of education? Is it to develop character or to enhance intellectual development or to produce model citizens? Is it to transmit knowledge or is it to develop a critical approach that will make the thinker an independent learner? What can the theories of mind, knowledge, ethics and language tell us about how best to achieve the aims that we adopt? Should education be in the hands of the state? These are just some of the questions that drive the philosophy of education. Clearly, it is one of the most multidisciplinary specialisms. It is of such concern to anyone with an interest in the maintenance of our cultural heritage, good manners and morality and the continued development of the sciences and the arts that most philosophers have had something to say on the issue.

David HUME claimed that it is not the physical force of the state that rules the people, for force is on the side of the governed; it is rather the public's acceptance of the state's right that maintains its authority. Thomas HOBBS had understood this in advocating that the state should control the education of the young. The state has a DUTY, according to Hobbes, to suppress the teaching of any doctrines that may undermine his own arguments for its existence. Since John LOCKE, British philosophy of education has been far more liberal, giving greater space to free speech, the presentation of alternative perspectives, open debate and an emphasis on the importance of the individual. With the rise of SOCIALISM in the 1950s and 1960s, however, there was a tendency to return to a Hobbesian authoritarianism for the 'GOOD of society'.

John Locke's theory of education flowed from his notion of the mind at birth as a *tabula rasa*, without innate ideas. Locke advanced an EPISTEMOLOGY according to which all our knowledge comes from our sense-experience and reflection on our inner experience. Consequently, he gave enormous importance to the role of experience and sense-perception in education. In *Some Thoughts Concerning Education* (1693) and *The Conduct of the Understanding* (1706), Locke outlined

the heavily experiential education that would be appropriate for a gentleman. He advocated four principal aims of education and ranked them in order of importance: VIRTUE, wisdom, breeding and learning.

Alfred North WHITEHEAD provides a twentieth-century example of classical liberal thinking on education. In *The Aims of Education* (1929), Whitehead argued that education is much more than the production of well-informed people; it is the acquisition by individuals of culture and specialized knowledge applicable to the present. Being cultured, students will think deeply and philosophically and will have some appreciation of art. All knowledge taught should be kept fresh and lively by connection with real current problems that the students can see as part of their lives. For example, algebra, geometry and geometrical drawing must be extended beyond the mere circle of geometrical ideas. In an industrial neighbourhood, machinery and workshop practice form the appropriate extension. Teachers should present ideas in ways that allow their free and creative combination. Teaching knowledge without application to problems leads to 'inert' ideas.

Some British philosophy of education is best seen in contrast to what it disagrees with. For example, Richard S. PETERS (1966), who played a major role in establishing philosophy of education as an academic discipline, argued that education consists in the initiation into the forms of knowledge, both to develop the mind and to transmit a valuable heritage. The influential American philosopher, John Dewey, had rejected knowledge-transmission models of education advocating that the child should be encouraged in experimentation, problem-solving and a critical approach rooted in the child's prior interests. In response, Peters argued that the disciplines themselves supply the various forms of critical thinking and problems, and that the teacher ought to lead children beyond their present interests to a love of knowledge. This is still a fundamental and topical issue of debate with the increasing popularity of courses that are student-centred and require active learning. To what extent can we separate critical methods from their context within each specialism? Are there general critical methods?

Active learning is indeed the most serious alternative teaching method, but there is little fundamental theoretical context for understanding its effectiveness. Karl POPPER's philosophy of critical RATIONALISM seems well suited to this educational technology. Joanna Swan (<http://www.learningfordemocracy.com> [Accessed 4 Apr 2006]) and Tyrrell Burgess have made some progress in elaborating a version of this approach. Burgess's work is inspired by Jan Amos Comenius. For Popper education is a process of knowledge growth and knowledge growth proceeds in the same way in all organisms. Popper characterized this as a four-stage process: (1)

problem (freely invented or perhaps stimulated by the disappointment of some expectation); (2) tentative theory or expectation to solve the problem; (3) an attempt at the elimination of error through criticism (or exploratory testing); (4) the emergence of further problems stimulated by the criticism of (2) (or its disappointment). Popper's formulation was:

$$P_1 \Rightarrow TT \Rightarrow EE \Rightarrow P_2$$

There are echoes here of Whitehead's and Dewey's emphasis on problems. The schema can be discerned in the primitive amoeba and in a sophisticated Einstein. The amoeba continually produces tentative trial movements in the search for warmth and nutrition; an Einstein produces tentative bold conjectures in the search for fundamental laws. Popper embraced a thorough fallibilism and also maintained that we know very little, that, in fact, we are infinitely ignorant. There is no justification of our knowledge; 'knowledge' is forever purely conjectural (even though it may be correct or close to the TRUTH). The process is one of conjecture and refutation. When an organism is simply led along the correct path, it fails to learn. A well-known experiment compared two kittens learning a maze. One was carried along the correct path through the maze suspended above the ground by a machine; the other was left to wander and make errors in finding the correct path through the maze. The active kitten learnt the maze faster. We are all kittens in the maze of abstract ideas.

If the PERCEPTION of problems, the creation of hypotheses and the testing of conjectures are all conjectural, so that knowledge-acquisition is itself a conjectural process, then there are important educational ramifications. The learner needs flexibility and space for error and its correction in the way that someone learning to ride a bicycle needs space to fall off. It is also clear that the learner needs the opportunity to supply the initial conjectural groping exploration of the problem, and the first ideas. An immediate consequence for the educational environment is that the classroom should provide the means for free active exploration of questions, and an ethos to which Popper refers as 'critical rationalist': 'You may be right and I may be wrong, and with a little effort we may get nearer (via debate) to the truth.' There is no shame in error for it is a necessary part of the process of getting nearer to the truth. Moreover there is both an element of cooperation and competition and a humble attitude towards the oceanic extent of our ignorance.

This approach is in stark contrast to the educational philosophy of much British EMPIRICISM, such as that suggested by Locke, Hume, John Stuart MILL and RUSSELL. These thinkers held that we learn via a process

of conditioning by our experience according to the laws of association and contiguity. The environment, in this view, supplies everything (apart from the mechanism of association, presumably) in the process of education. From a Popperian/Darwinian point of view, these mechanisms – if they exist – are themselves what might be called crystallized conjectures that served to enhance the reproductive success of our ancestors as they clumsily and gropingly explored and manipulated their vast and dangerous world. It is an advantage for an educational technology and philosophy – as it is for any theory – to be congruent with other powerful scientific theories. Popper's approach is not only comfortably compatible with the Darwinian theory of human beings, it is deeply analogous. They enlighten one another. Popper's conjecture and refutation schema has the two necessary features of a Darwinian process: independent, unjustified variation and error elimination. The *tabula rasa* empiricist approach, on the other hand, is now in retreat in the face of mounting evidence that humans learn by actively exploring their world (see Pinker, 2002, 1997). ASSOCIATIONISM survives only as one of many learning algorithms that current researchers employ in connectionist models of human understanding and learning. Despite the substantial evidence against the blank-slate view, it is surprising what residues survive. I once saw a busy teacher arranging an active learning class in which the students would, ostensibly, debate an issue. The teacher told the students the script to be followed. Student A had to say x, in response to which student B would say y, and so on! From the active learning perspective, the students need to be aroused by curiosity in a problem and be allowed to make mistakes in solving it. Popper suggested that for scholars, one should find a problem and marry it – eat with it, go for walks with it, sleep with it. Only then would productive ideas start to flow.

One might think that the popular movement in education towards critical thinking courses would fall perfectly within the Popperian approach. However, there are notable criticisms of the view from the perspective of critical rationalism. Miller (2006) points out that the critical thinking movement assumes that the paradigm examples of reasoning are those in SCIENCE and that science must therefore consist largely of reasoned argumentation. But, Miller says, reasoning is a processing procedure, not a productive activity; science needs material to work on, specifically conjectures, and to put it baldly, blind guesses. The point is that most of scientific (and other) discourse is, in Miller's view, not argumentative, and that it is misleading to pretend that these non-arguments can be usefully assessed by the standards of LOGIC. Scientists blindly produce guesses in an attempt to explore the world. They then blindly try to find errors in those guesses. In other words, imagi-

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native exploration is required both to produce the theories of science and to test them. Neither of these activities is bound by rules. There are no rules for producing good guesses, or for refuting them. On the other hand, one might want to say that the different specialisms have built up a stock of conjectural rules of testing theories and that one can teach these. But one is then moving away from the idea that there are general educational rules independent of each line of specific problem-solving.

BIBLIOGRAPHY

- Burgess, Tyrell, *Education after School* (1977).
———, 'Can Learners Manage?', chap. 13 in Norman Graves (ed.), *Learner Managed Learning* (1993).
Comenius, Jan Amos, *Didactica Magna* (1642).
Locke, John, *Some Thoughts Concerning Education* (1693).
———, *Conduct of the Understanding* (1706).
Miller, D.W., *Critical Rationalism. A Restatement and Defence* (Chicago and La Salle, 1994).
———, *Out of Error. Further Essays on Critical Rationalism* (Aldershot, 2005).
Pinker, Steven, *How the Mind Works* (Harmondsworth, 1997).
———, *The Blank Slate* (Harmondsworth, 2002).
Popper, K.R., *Logik der Forschung* (Vienna, 1934); English edn, *The Logic of Scientific Discovery* (1959).
———, *Conjectures and Refutations* (1963; 5th edn, 1989).
Shand, J., *Arguing Well* (London and New York, 2000).
Swann, Joanna, 'The Usefulness of Karl Popper's Selectionist Theory of Learning for Educational Practice', *Learning for Democracy*, vol. 1, no. 3 (October 2005).
Whitehead, Alfred North, *The Aims of Education and Other Essays* (New York, 1929).

Ray Scott Percival

See also Darwin, Charles; Imagination; Innate Knowledge

EDWARDS, David Miall (1873–1941)

D. Miall Edwards was born in Llanfyllin, Merionethshire on 22 January 1873 and died in Brecon

on 29 January 1941. His parents were admirers of the radical politician and dissenting minister Edward Miall, after whom they named their son. Following a short period as an apprentice gardener, Edwards won a scholarship to the University College of North Wales, Bangor, graduating with second class honours in English in 1896. He then entered Bala-Bangor, the Independents' seminary in the city and proceeded to Mansfield College, Oxford in the following year. He was awarded a first class honours degree in theology in 1901, his graduation having been delayed due to illness. He was ordained at Blaenau Ffestiniog in 1900, moving in 1904 to the Plough Church, Brecon. In 1909 he was appointed Professor of Systematic Theology and the Philosophy of Religion at the Independents' Memorial College in the town. He remained there until his retirement due to ill health in 1934.

Edwards was a prolific author. He regularly contributed to English and Welsh-language journals and several of his articles were later published in two volumes, *Crefydd a Bywyd* [Religion and Life] (1915) and *Crist a Gwareiddiad* [Christ and Civilization] (1921). His major works include *Bannau'r Ffydd* [The Pinnacles of the Faith] (1929), the only systematic theology to be published in Welsh during the twentieth century; *THE PHILOSOPHY OF RELIGION* (1924), which became an international best-seller, was translated into Japanese and earned him the PhD of the University of London; and *Christianity and Philosophy* (1932). He was awarded the DD (*honoris causa*) of the University of Wales in 1925.

Edwards's thought was based on the fundamental unity of TRUTH and the coterminous interests of philosophy and religion in discovering and understanding that truth. As a result, he tried to demonstrate a basic connection between idealist philosophy and the Christian God. He argued that all lower forms of existence and reality contained within them aspects of the higher forms and thus all partook of the one Ultimate Reality, which was perfect TRUTH, goodness and beauty. This Ultimate Reality was known in Christian Religion as God and had its most perfect REVELATION in the life of Jesus of Nazareth, who, in Ritschlian terms, has the value of God for us and was consequently hailed as Christ. Following the trend which could be traced back to Friedrich Schleiermacher, Edwards maintained that 'experience' was the primary theological category and that doctrine was meaningful only as an expression of real experience or as an attempt to safeguard values. This, for Edwards, maintained the secondary nature of theological discourse; the experience of God in Christ and the commitment to follow Christ as Lord being primary. From this background, Edwards maintained a sense of the personality of the Ultimate Reality rather than its conceptual existence, while he also upheld the