

Notes

- 1.1 Ekins, 1986
 - 1.2 Taylor Nelson Monitor, see Large, 1986.
 - 1.3 Yankelovitch et al., 1983
 - 1.4 Jowell and Topf, 1988; Social and Community Planning Research, 1993
 - 1.5 The G7 countries are: the USA, the UK, Germany, Canada, France, Italy, and Japan.
 - 1.6 Bookchin, 1992
 - 1.7 GNP stands for Gross National Product. This roughly corresponds to the total value of all goods and services produced in a country. In later chapters, we will explore some of the interpretational problems posed by the figure.
 - 1.8 These errors were actually clearly perceived by Douglas more than 60 years ago (Douglas, 1935/78b).
 - 1.9 Kanter, 1985
 - 1.10 Milbrath, 1989
 - 1.11 Educators tend to use such terms as "lifelong learning" to refer to formal, "education-defined-as-telling" learning, not the ability to develop oneself, develop one's own talents, make one's own observations, initiate action, monitor the results, develop a better understanding of the problem one is tackling and the effectiveness of the strategies one is using and, as a result, make more appropriate interventions, the ability to build up a new understanding of current social and ecological processes and the ability to intervene in them.
 - 1.12 The best-selling book in Japan in 1993, selling over two million copies, was *How to Live in Poverty with Dignity*. It consisted mainly of teachings drawn from ancient Japanese manuscripts. Although these sales may be interpreted as evidence of sudden endorsement of the "New Values" - which are actually ancient Navajo and Japanese values - in Japan this is not necessarily the case. Much of the deliberate crafting and presentation of misleading persona to the rest of the world has been legitimised by saying that Japan is a poor country which needs to protect itself. A strengthening of this self-image may therefore lead, not to the expected internal transformation of society, but to a strengthening of the tendency to concealed protectionism and international exploitation.
 - 1.13 Raven, 1984; Spencer and Spencer, 1993
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- 2.1 Ward and Dubos, 1972
 - 2.2 Brown et al., 1984-1991
 - 2.3 Myers, 1985
 - 2.4 e.g. Porritt, 1984
 - 2.5 Milbrath, 1989
 - 2.6 Meadows et al., 1972, 1992
 - 2.7 Rees (1992) shows that it would require five backup planet earths to support the current population of the world at the standard of living of the Fraser Valley, Canada.
 - 2.8 See Holling, 1994.
 - 2.9 Myers, 1985
 - 2.10 Bellini, 1980
 - 2.11 Robertson, 1985
 - 2.12 Hancock, 1991
 - 2.13 George, 1988
 - 2.14 The US alone does trade of \$5 billion a year in pesticides that are banned at home to developing countries ... ironically, some of it finds its way back to the West in foodstuffs.
 - 2.15 For example, Korten (1995) reports that a footwear manufacturer employs 8,000 people in management, design, sales, and promotion. However, its shoes are made by some 75,000 workers employed by independent contractors, most of whom are in Indonesia. Shoes sold in the West for #50 to #75 cost about #3.50 to produce ... by young women working for about 10p an hour. The workers are housed in company barracks and overtime is mandatory. See also Barnet and Cavanagh (1994).
 - 2.16 Lovelock, 1979
 - 2.17 Goldsmith, 1992
 - 2.18 Milbrath, 1989
 - 2.19 Jaques, 1976, 1989

- 2.20 Morgan, 1986
- 2.21 Trainer, 1990

3.1 I am deeply grateful to Michael Ross of the ESRI in Dublin for drawing this information to my attention after one of our seminars on *Civic Culture in Ireland*. It was one of a small number of interventions which changed my thinking and life's work.

3.2 Some people argue that those who are living mainly or in part on state benefits are free to spend this money as they themselves choose, and not in a way determined by government. Many of the recipients, however, make it clear that the public servants dispensing the money mainly determine how it can be spent.

3.3 Janicke, 1990

3.4 Inkeles, 1981

3.5 Lane, 1991

3.6 Brandt Report, 1980

3.7 Brundtland Report, 1987

3.8 United Nations, 1985

3.9 See, for example, *The Economist*, October 8th, 1983; Raven, 1980.

3.10 As much as 50% of such services are actually provided by family members, friends and the general community. While this reinforces the argument presented here in that wealth is primarily in the public domain it also underlines the inadequacy of economic indicators as indices of the quality of life (wealth) and the inability of market mechanisms to deliver wealth. In pre-monetarised societies most of these services were provided by the community as a whole. One of the central problems we now face is to find alternative ways of orchestrating such community-based processes.

3.11 Although there has been a dramatic shift from "manufacturing" to "services" over the past 40 years, the proportion of the population employed in offering direct services to the public - as in park-keeping, medicine, etc. - has actually declined. Most of the increase is in services to industry and distribution - transportation of goods, accounting, development of computer software, etc.

3.12 Turnbull, 1975

3.13 Still less are they the main socio-economic forces driving the privatisation process.

3.14 Chapman, 1979

4.1 Originally, the issuer of "money" - e.g. cowhide tokens - was the owner of the real assets (cows) they represented. Even as late as the Middle Ages, money largely consisted of receipts issued by goldsmiths in return for valuables deposited. These receipts could be exchanged for other goods and services but their value remained directly linked to the value of the goods deposited. The control of early coins was vested in the monarch as a trustee for the nation. Currently governments do *not* act as trustees for nations in such a way as to curb misuse of the system for sectional benefit. That is, they do not act as Weights and Measures officers who insist on the maintenance of high standards.

4.2 Ekins, 1986; Roberts, A.E., 1984; George, 1988; Institute of Economic Democracy, 1982

4.3 In most Western countries and Japan the overall figure was about 9:1, but varied between activities. In Britain it has recently been revised so that business loans require 8%, real estate 5%, and government bonds zero. Not all the capacity for lending afforded by these figures was - or is - directly taken up. However, the process whereby loans return to banks as deposits which are then used to justify further lending makes the figure relatively meaningless. But even the official figure has been eroded. The Japanese have recently increased it 30:1, and the Bank for International Settlements is now recommending 12:1.

4.4 Ekins, 1986; George, 1988; Institute of Economic Democracy, 1982

4.5 Ekins, 1986; Roberts, A.E., 1984; Adelman, 1989

4.6 The (private) Bank of England was created in 1694 by William Paterson. It was designed to purchase Crown debt (bonds) and resell it to private investors. In return for the bonds, the Bank issued currency to the Crown and charged interest. Within two years the Bank had issued far more currency than it could redeem in gold. As Paterson wrote "The Bank hath benefit of interest on money which it hath created out of nothing". The Crown specifically excluded the Bank from the requirement to be able to redeem its notes in gold, thus legitimising debts which far exceeded assets - a situation which would, in any other business have constituted fraud. A monopoly was established which would not have been tolerated elsewhere.

4.7 Douglas, 1935/78a&b; Roberts, A.E., 1984

4.8 Roberts, A.E., 1984

- 4.9 Adelman, 1989
- 4.10 Douglas, 1935/78b
- 4.11 It is remarkable, or perhaps, given the evidence not surprising, and perhaps even supportive of a theory that there has been a conspiracy, that these texts have been altered so little to take account of the writings of C.H.Douglas in the 1930s (see for example Douglas, 1934, 1935/78a&b).
- 4.12 Ekins, 1986; Adelman, 1989; Daenhardt, 1994. The next step is also in their interests: The nominal debt will be used as an excuse for the Western banks, in the shape of the IMF, to intervene in the affairs of the "debtor" countries to make them "more efficient". They will do this by insisting, first, that public services are run down. (This will have the added advantage of making them less able to monitor the workings of the world economic system.) Second, by insisting that "inefficient" manufacturing industries are closed or, preferably, first sold to the TNCs and *then* subsidised "in order to preserve jobs". The net result will be that the countries concerned will be required to focus on exporting below-cost food and raw materials or, if that objective cannot be achieved, below-cost, labour-intensive, manufactured goods.
- 4.13 Douglas, 1924/79, 1934, 1935/78a&b, 1936
- 4.14 Douglas, 1934

- 5.1 Grossman and Adams, 1993
- 5.2 Pearce, 1993
- 5.3 Raven, H., Lang and Dumomteil, 1995
- 5.4 Bookchin, 1992

- 6.1 Thurow, 1983
- 6.2 Grossman and Adams, 1993
- 6.3 Chomsky, 1991, 1993; Ekins, 1992
- 6.4 Jencks, Perman and Rainwater, 1988; Yankelovich and Immerwhar, 1983
- 6.5 Lane, 1991. Studies reviewed include: Andrews and Withey, 1976; Campbell, 1981; Campbell, Converse and Rogers, 1976; Freedman, 1980.
- 6.6 Hardin, 1968
- 6.7 We will later see that citizen contribution to the management of society is among the most important contributions people can possibly make.
- 6.8 Raven, 1980; Scarr, 1988; Shipman, 1971; van der Eyken, 1979
- 6.9 Easterlin, 1973
- 6.10 Inkeles and Diamond, 1980
- 6.11 Block, 1985

- 7.1 However, the importance of dramatic US intervention in connection with the Korean War should not be overlooked.
- 7.2 Wolf, 1983
- 7.3 The same is also true of Switzerland, whose businesses are playing an ever-increasing role in Europe.
- 7.4 See *Note* 1.12.
- 7.5 Wolf, 1983
- 7.6 e.g. Counter Information Services, 1976-1984
- 7.7 Toffler, 1980

- 8.1 *The Economist*, October 8th, 1983
- 8.2 Roberts, A.E., 1984
- 8.3 McClelland, 1961
- 8.4 Rogers, 1962/1983
- 8.5 Roberts, A.E., 1984
- 8.6 Inkeles, 1990; Rose, 1980
- 8.7 Lane, 1979, 1986, 1991
- 8.8 Benton, 1986, 1990
- 8.9 Inkeles, 1990
- 8.10 Lindblom, 1982

- 9.1 Hope, 1984
- 9.2 Jencks et al., 1973
- 9.3 Chomsky, 1987
- 9.4 Nuttgens, 1988
- 9.5 Hogan, 1990, 1991; Hogan, Raskin and Fazzini, 1990
- 9.6 Miller, 1992
- 9.7 Hogan, 1990; Sutherland, 1949; Counter Information Services, 1976-1984
- 9.8 Chapman, 1979
- 9.9 Bellini, 1980
- 9.10 Something which has been noticeable in the UK, but which may not be so characteristic of the USA, is that when large firms get into financial difficulties the State buys them at a low price, sets about modernising them, and when they are viable sells them back into private ownership.
- 9.11 Alvey Committee, 1982
- 9.12 European Strategic Programme for Research and Development in Information Technology (ESPRIT)
- 9.13 McClelland, 1961; Rogers, 1962/83; Taylor and Baron, 1963; MacKinnon, 1962; Torrance, 1965; Crockett, 1966
- 9.14 Hogan, 1990; Raven and Dolphin, 1978
- 9.15 Roberts, E.B., 1967
- 9.16 Cannon, 1991
- 9.17 Zimet, 1989
- 9.18 Klein, 1980

- 10.1 One implication of this is that, if Turnbull (1993) is to succeed in his aim of enhancing freedom by diffusing ownership, it will be necessary to introduce procedures to monitor what is happening.
- 10.2 Schor, 1992
- 10.3 In reality, it would be necessary to make separate calculations for: paid work as part of the official workforce, paid, black-economy work, voluntary, formal work, unpaid work around the house, including DIY, by all members of the family, before one could come to valid conclusions about the nature and effects of changes over time.
- 10.4 Raven, H. et al., 1995
- 10.5 Raven, H. et al., 1995

- 11.1 Waddell, 1978
- 11.2 Jencks et al., 1973
- 11.3 I.C.E. Report, 1975
- 11.4 Scottish Education Department, 1989
- 11.5 Popkewitz et al., 1982
- 11.6 The importance of these qualities, the procedures required to nurture them, and the assessment methods required to give students credit for having developed them are described in Raven (1994).
- 11.7 Raven, 1994
- 11.8 Working toward goals which do not show up in examinations would take time away from mastering material which would determine one's life chances. As a result, students and teachers generally decline to work toward goals which are not assessed - however important those goals may be from a personal development or societal point of view.
- 11.9 Robinson, 1983
- 11.10 Graham and Tyler, 1993
- 11.11 Roberts, A.E., 1984; Dodd, 1976/94
- 11.12 Douglas, 1924/79, 1934, 1935/78a&b, 1936
- 11.13 Roberts, A.E., 1984
- 11.14 Rackus and Judge, 1993, 1994
- 11.15 Bell, 1984
- 11.16 Dodd, 1976/94
- 11.17 Daehnhardt, 1994
- 11.18 Daehnhardt, 1994
- 11.19 Roberts, A.E., 1984
- 11.20 Douglas, 1924/79, 1934, 1935/78a&b, 1936
- 11.21 Adelman, 1989

11.22 Roberts, A.E., 1984

11.23 Adelman, 1989

11.24 Romer, 1988

11.25 Roberts, A.E., 1984

11.26 du Berrier, 1994

11.27 Eringer (undated).

11.28 Pacheco, 1994

11.29 Keppe, 1985

11.30 Raven and Dolphin, 1978; Hogan, 1990; Winter, 1973

11.31 Wolf, 1983

12.1 Hayek, 1948

12.2 Romer, 1988

13.1 Flanagan, 1978, 1983; Flanagan and Russ-Eft, 1975; Raven, 1980

13.2 The notion that the private sector gets rid of the incompetent more quickly is vastly over-played. In most large organisations people are able to survive for years without pulling their weight, and Hogan (1990, 1991) has demonstrated that the base rate for serious managerial incompetence among American managers is no less than 60%. His findings in some ways confirm the operation of the *Peter Principle* (whereby people are promoted to, and then remain at, their level of incompetence) in *both* the private and public sectors. More importantly, they point to the absence of effective ways of *assessing* and *deploying* competence effectively in all organisations.

13.3 Etzioni, 1985

13.4 Heald, 1983

13.5 Walberg, 1984

13.6 Ponting was prosecuted for having revealed what all the world - who, unlike the British, had seen the Falklands War on their television screens - knew about the sinking of the Belgrano despite Mrs. Thatcher's denial. The law was subsequently changed to prevent any public servant ever again speaking out in the public interest. Ponting's own account of the affair will be found in his book, published in 1985. Hancock (1991) has described the ways in which his efforts to expose the World Bank were deliberately frustrated.

14.1 Raven, 1967; Stone, 1961a&b

14.2 Raven, 1988, 1989

14.3 Newsom (1963) which was a particularly illogical report.

14.4 Plowden Report, 1966. Bernstein (1975) has charged that the words in which this were couched were particularly obscurantist and deceptive.

14.5 Munn Report, see SED, 1977a.

14.6 Dunning Report, see SED, 1977b.

14.7 Sneddon Report, 1978

14.8 Schon, 1983

14.9 Adams, Robbins and Stephens, 1981

14.10 The reasons for this have been discussed by Raven (1985) and Schon (1983).

14.11 Raven, 1985; Schon, 1983

14.12 The reader will by now be familiar with what is implied by the term "systems processes" which may be biological or physical. These are nicely captured by the way Gaia maintains herself as a living organism. But they may also be sociological. For example, a network of feedback - fueled among other things by the sociological imperative that the educational system legitimise the hierarchical allocation of jobs and rewards - maintaining the current system in being. Heavy and "jargonistic" though it is, it has therefore been found necessary to continue to use the phrase "sociological systems processes".

14.13 For a fuller discussion see Searle (1985) and Raven (1994).

14.14 Schwarz, P.A., 1985

14.16 For a fuller account of this enquiry and an evaluation of one attempt to follow through on its recommendations, see Raven (1987a&b).

14.16 John Major, 11 January 1993

14.17 Although the workings of the Inter-Cert Committee were described in a previous chapter, some readers may appreciate the following fuller account. In Ireland, the Intermediate Certificate examination is taken at around age 15. Some schools and their representatives and some members of the Department (Ministry) of Education were aware of the serious constrictions which the examination had on the ability of secondary schools to meet pupils' needs. Unfortunately, (a) those who recognised the importance of certifying other outcomes did not know how to assess progress toward them, (b) some members of the Committee were utterly opposed to a change toward certifying higher level outcomes either because they would have to work harder to achieve them or because they recognised that changing the assessments would interfere with the way in which the educational system contributed to the maintenance and perpetuation of the social order, and (c) there was considerable unease about certifying qualities like "initiative" because it was apparent that these were somehow linked to values and there was no way of handling the moral dilemmas which this posed. The net result was that all members of the Committee recognised that it would take a long time to do anything, and some hoped that nothing would ever happen.

The more progressive members of the Committee then developed an action plan to deal with the more reactionary. The latter were approached in the bar and plied with alcohol by the others who arrived in a pre-determined sequence. What was to be achieved was agreement on the establishment of a *Moderation and Educational Assessment Service* which would have a staff of researchers and others concerned with curriculum development and be empowered to establish a network of collaborating teachers to develop new curricula and ways of assessing them. But then came a twist that resulted in an exactly contrary outcome. The Department (Ministry) of Education declined to make any substantial funding available for the wider work. It was therefore agreed *by the Committee* that the unit would "initially" focus on "improving" what was already being done. This, of course, meant that the fundamental work which was required to find ways of achieving and assessing the broader goals would get no attention at all, and that all attention would focus on improving the reliability and "academic" predictive validity - but not the construct validity - of the assessments which were already being made. No provision was even made for schools to insist on something that had been at the heart of the proposals - namely the development of tools which would make it possible for them to have their pupils' certificates based on what they were good at. The final report faithfully acknowledged the major problems inherent in the current system of examinations, was replete with phrases alluding to vitally important educational and assessment issues, gave the impression of being forward-looking and thorough but, at the same time realistic and reasonable, recognising the need to proceed in a step-wise rather than revolutionary manner, but in practice made recommendations which could, and did, have the *opposite* effect to that intended by the more progressive members of the Committee. While it is true to say that the reactionaries won, it would not be true to say that they did so by employing Machiavellian tactics. The progressives were defeated by systems processes which the public servants concerned failed to understand and tackle. But it was a senior public servant who tried to get the Committee to consider the social functions of education and how to come to terms with them. At the end of the day, it was we who failed him. In a sense, this book is a very real attempt to compensate for this.

14.18 Waddell Report (1978)

14.19 Almost exactly parallel observations to those we have made about the Irish and English examinations committees could be made about the Munn (1977) and Dunning (1977) Committees which dealt with much the same topics in Scotland. Their reports are in some ways more coherent and forward-looking than the English and Irish ones, but they are seriously flawed in that they perpetuate the divide the Schools Council for Curriculum and Examinations in England and Wales was set up to bridge (but had never in fact succeeded in bridging) between curriculum and assessment. While the Munn Report, like both the Waddell Report in England and Wales and the Irish Intercert Report, acknowledged the developments needed in assessment to facilitate essential developments in curricula, it neither recommended the range of research and development activities, nor the developments in managerial arrangements, which would be required to move forward.

14.20 Arrow, 1963

14.21 Miller, 1992

14.22 For a selective review of the vast literature dealing with *Headstart, Homestart, and Follow Through*, see Raven (1981).

14.23 Graham and Tyler, 1993

14.24 See Marris and Rein, 1972.

14.25 Lazar, 1979

14.26 Schweinhart and Weikart, 1977; Weikart et al., 1978; Love et al., 1976

14.27 See also Hope (1984) and Raven (1980).

14.28 e.g. Ekins, 1986; George, 1988; Ghandi, 1991.
14.29 Hancock, 1991
14.30 Burgess and Pratt, 1970
14.31 Foster, 1967
14.32 Thompson and Warburton, 1985
14.33 Reason, 1987

15.1 Day and Klein, 1987
15.2 Simey, 1985
15.3. Raven, 1974
15.4 Dixon and Welch, 1991; Klein, 1992; Hunter, 1993
15.5 Price, Taylor et al., 1971
15.6 This would not have been the issue in Oregon where the whole scheme applied only to a small sector of the population, but it is of major importance in other countries and in other areas of policy.
15.7 Raven and Dolphin, 1978
15.8 Drucker, 1959
15.9 Seashore and Taber, 1976
15.10 Walberg, 1974
15.11 Broadbent and Aston, 1978
15.12 Thompson and Warburton, 1985
15.13 See Raven, 1985; Donnison, 1972; Cherns, 1970.
15.14 It is of some interest to compare the different approaches which have been adopted in public management, UK education and agriculture. In the educational system there has been no recognition of the need to create a pervasive climate of innovation involving multiple changes, systemic intervention, and sophisticated evaluation. By contrast, the management of European agriculture depends to a much greater extent on the creation of such a climate. There are huge research and development institutes, and networks to seek out, sift, and disseminate information (such as the *Agricultural Advisory Service*). But beyond that there are feedback mechanisms and multiple providers of alternative services. Central authorities systematically manipulate prices, taxes, grants, and levies - and buy into intervention - to achieve desired ends. Land reform is imposed or induced. Networks of suppliers are set up to get tools, seeds, and information to firms and marketing arrangements are made to get products to the customers. Nevertheless considerable local discretion is retained: The networks reveal the mountains to be climbed, release energy and imagination, but leave the final decision to the agent.

16.1 Jaques, 1976
16.2 Douglas, 1934
16.3 McClelland et al., 1958; Winter and McClelland, 1963; Winter, 1973; McClelland, 1975
16.4 The Noberto Keppe Foundation, recognising the centrality of this problem, has carried out some extremely important experimentation with alternative management arrangements in small, and not so small, organisations and promoted Forums to clarify the alternative organisational arrangements required at national and international levels. They also produce Newsletters with a view to promoting more widespread recognition of the behaviour of some business and political leaders and encouraging people to act on their consciences in relation to a wide range of political and social issues.
16.5 Chomsky, 1991
16.6 Although we have now seen endless problems with democracy, it may still be argued that Western "democratic" institutions are the best of the available options. Actually this is not the case. Delight at the demise of "communism" is unwarranted for two reasons:
a) It takes no account of the reigns of terror, death, extermination, suppression of free speech, denial of human rights, exploitation of resources, and poverty and disease which Western capitalist states forced on their network of satellites - which is far larger than that of the USSR. These satellites were subject not only to "economic" pressure (e.g. through the IMF and the World Bank) but, as Chomsky (1987, 1991) has shown, to military force directly and openly applied with the aid of propaganda and deception (as in Vietnam and the Persian Gulf), directly but clandestinely inflicted (as in Cambodia), directly orchestrated but inflicted through puppet regimes in the countries concerned (as in Nicaragua, Grenada, and Honduras) and directly inflicted through adjacent local governments (as in East Timor). The regimes of Eastern Europe were, at least in the post-Stalin era, a great deal more humanistic than those of the West. They imprisoned dissidents instead of shooting them - and then, utterly remarkable from a Western perspective, *gave them back their jobs* when they were released as the regime changed. Thus, while the deadliness and

destructiveness of Stalin's regime can hardly be over-estimated, there is little doubt that the post-Stalinist regimes were, *taken as a whole*, a great deal *less* destructive of human life than the Western capitalist system.

b) The poor people who formed part of that system were a great deal better off than the poor in America - never mind the poor in the beleaguered countries which form part of the Western capitalist system.

Environmental destruction there was too ... but it was "at home" and not on the other side of the globe and it was more visible and less carefully concealed with less attention being directed toward what are, in comparison with fuel emissions, social disintegration, etc. more peripheral issues like cigarette smoking.

16.7 Chomsky (1989, 1991) has shown how the combined forces of "democratic" government and a "free" investigative press failed to compel exposure of crimes and conspiracies against humanity by the US governmental/military/industrial complex. He has also provided detailed accounts of the way in which they failed to prevent the media promoting the correct political line, without examination, to support the wars in Vietnam and the Persian Gulf. They failed to prevent the media from accepting and promoting myths, indeed actually working up hysteria, which helped to destroy democratically elected governments which were inclined to act in the interest of their general population instead of capitalists - and which could therefore be portrayed as leaning toward communism and thus automatically a "threat to America". They proved unable to prevent the media encouraging such feelings of despair and impotence on the one hand, and belief that only government action could solve the problems facing the globe on the other, that people do not even try to do anything about serious problems.

He has shown that abuses of civil rights and campaigns of death and oppression in other countries were systematically engineered by US governments, and supported to promote arms sales and the subsequent flow of below-cost minerals and agricultural products. Oppression was ignored altogether if it posed no threat to, or intervention posed no advantage to, the United States.

16.8 Graham and Tyler, 1993

16.9 Giroux, 1992

16.10 Day and Klein, 1987

16.11 Janicke, 1990

16.12 George, 1988

16.13 Etzioni, 1985

16.14 Galbraith, 1991

16.15 Douglas, 1935/78a

16.16 Roberts, A.E., 1984

16.17 Adelman, 1989

16.18 Daehnhardt, 1994

16.19 Sorensen, 1994

16.20 Korten, 1995

16.21 MacMurray, 1943

16.22 Miller, 1992

16.23 Arrow, 1963

16.24 Toffler, 1980

16.25 See e.g. Goldsmith (1992) and Emery (1974). Emery has laid particular stress on the use of sortition - choosing representatives at random as distinct from through election. Elections inevitably result in the election of people who have very different concerns and priorities from those who elect them. Inevitably they are more power hungry people, who are adept at manipulating human systems and who act in socially dysfunctional ways when they gain positions of power. Sortition offers a better way of obtaining decisions which reflect the concerns of the general population.

16.26 Parris, 1961

16.27 Schon, 1973

16.28 Kanter, 1985

16.29 Revans, 1971, 1980

17.1 We *can* see ways of further reforming money to yield a set of ticket systems which work within very much more delimited areas of the economy, but this is a more radical re-formulation than has been envisaged by any of those who advocate reform of money and market processes.

17.2 Sampson, 1989

17.3 Ekins, 1986

17.4 Bellini, 1980

- 17.5 Thurow, 1983
- 17.6 See especially, Lane, 1979, 1986.
- 17.7 See especially, Lane, 1979, 1986.
- 17.8 If further evidence on this point is required see Easterlin (1973).
- 17.9 See especially, Lane, 1979, 1986.
- 17.10 Robertson, 1985
- 17.11 Taylor Nelson Monitor, see Large, 1986.
- 17.12 Yankelovitch et al., 1983
- 17.13 e.g. see Jowell and Topf, 1988.
- 17.14 Milbrath, 1989
- 17.15 Robb, 1989, 1991
- 17.16 Taylor Nelson Monitor, see Large, 1986.
- 17.17 Yankelovitch et al., 1983
- 17.18 Graham and Raven, 1987

- 18.1 Bahro, 1986
- 18.2 Milbrath, 1989
- 18.3 Sale, 1991
- 18.4 Goldsmith, 1992
- 18.5 McClelland, 1961
- 18.6 Schumacher, 1974. See also McRobie, 1982. Despite worldwide endorsement, the writings of some authors (for example Janicke, 1990), seem to amount to little more than grasping at a straw for the lack of any articulate alternative.
- 18.7 Dammann, 1979, 1984
- 18.8 Robertson, 1985; Dauncy, 1988
- 18.9 P.M., 1985
- 18.10 Morgan, 1986
- 18.11 Binswanger et al, 1990
- 18.12 Ekins, 1986
- 18.13 Douglas, 1935/78b
- 18.14 Robertson, 1985
- 18.15 Basic Income Research Group
- 18.16 See especially, Chapter 8 of Ekins (1986).
- 18.17 Robertson, 1985
- 18.18 Douglas, 1935/78b. Douglas knew all about the nebulous nature of money, control of the financial system by international bankers, the generation and dissemination of mis-information by that community in order to manipulate both public and governments, the lack of connection between money, wealth, and quality of life, and the possibilities of intervening in the system without generating inflation by injecting newly created money in an appropriate way and/or moving toward systems of exchange explicitly based on tickets instead of a system misleadingly presented as "money". He developed a more fundamental argument to legitimise a high, guaranteed, basic income than any put forward by modern authors. The emphasis in his writing does, however, differ from them in that the seriousness of the environmental problems which the energy-consumptive machine age has generated were not then apparent. As a result, he is much more inclined to advocate wider use of machines. Likewise, there is more unquestioned acceptance of the importance of eliminating work (or acceptance that work is a curse) and a failure to acknowledge the contribution that working life makes to quality of life.
- 18.19 Bookchin, 1992

- 19.1 Deming, 1982, 1993
- 19.2 Raven, 1984
- 19.3 Deming, 1982, 1993; Dore and Sako, 1989; Graham and Raven, 1987; Jaques, 1989; Kanter, 1985; Klemp, Munger and Spencer, 1977; Raven, 1984, 1990
- 19.4 For evidence and a fuller discussion see McClelland (1961), Milbrath (1989), and Revans (1980).
- 19.5 The actual value of such networks in turning round the operation of an irrigation scheme has been documented by Korten and Siy (1989).
- 19.6 Chubb, 1963; Miller, 1992
- 19.7 Thompson, 1979

- 19.8 Kanter, 1985; Roberts, E.B., 1968; Rogers, 1962/83
- 19.9 Kanter, 1985
- 19.10 Graham and Raven, 1987; Raven, 1984
- 19.11 Howard, 1980
- 19.12 Walberg, 1979
- 19.13 Raven, 1984; Graham and Raven, 1987; McClelland et al, 1958; McClelland, 1961
- 19.14 Jaques, 1989
- 19.15 Klein, 1980
- 19.16 Lane, 1979, 1986
- 19.17 Rawls, 1971
- 19.18 Rothschild, 1982
- 19.19 Raven, 1977, 1994
- 19.20 Etzioni, 1985
- 19.21 Spearman, 1927
- 19.22 Maistriaux, 1959
- 19.23 Thompsom, 1979

- 20.1 Morgan, 1986

- 21.1 McClelland, 1961, 1962; Oeser and Emery, 1958; Pelz and Andrews, 1966; Roberts, E.B., 1968; Rogers, 1962/83; Taylor and Barron, 1963
- 21.2 Jaques, 1976
- 21.3 Rothschild, 1982
- 21.4 Pearson, 1945
- 21.5 Thompson, 1979
- 21.6 Kanter, 1985
- 21.7 Raven, 1984
- 21.8 McClelland et al., 1958; McClelland, 1978
- 21.9 Klemp et al., 1977
- 21.10 Rogers, 1962/83
- 21.11 Gardner (1987) has termed these "cultures of intelligence" and provided a revealing discussion of what is involved.
- 21.12 Roberts, E.B., 1968, 1969; Rogers, 1962/1983; Schon, 1973
- 21.13 Rogers, 1962/83; but see Raven (1985) for a discussion of the misunderstandings of these terms in education.
- 21.14 Revans, 1971, 1980, 1988
- 21.15 Schon, 1973
- 21.16 Day and Klein, 1987
- 21.17 Adams and Burgess, 1989; Raven, 1994
- 21.18 Raven, 1984, 1994
- 21.19 Dore and Sako, 1989
- 21.20 Graham and Raven, 1987
- 21.21 Simon, 1976
- 21.22 Jaques, 1976, 1989
- 21.23 Kelton, 1991
- 21.24 Diesing, 1962
- 21.25 Bartlett, 1986
- 21.26 Klemp et al., 1977; Litwin and Siebrecht, 1967; McClelland et al., 1958; McClelland, 1978; Raven, 1994
- 21.27 Adams and Burgess, 1989
- 21.28 Raven, 1984
- 21.29 Klemp et al. (1977) have described the process among American Naval Officers. Jaques (1976, 1989), Deming (1980) and Dore and Sako (1989) have also contributed relevant work. A fuller discussion will be found in Raven (1984).
- 21.30 See Rogers, 1962/83.
- 21.31 Rogers, 1962/83
- 21.32 These fears are well founded (Raven, 1988, 1991). Adams et al. (1981) clearly demonstrate this effect in the polytechnic they studied, while much of our own research has documented the effects which "payment by results" has in education when very few of the most important outcomes show up

on the measures. A fuller discussion of the damaging effects of the limited range of formal evaluation procedures will be found in Raven (1984, 1985, 1991).

21.33 Harlen's (1984) research shows that this is indeed the case.

21.34 Raven and Varley, 1984

21.35 The assertion that there was no evidence that the pupils were doing these things is dependent on introducing and applying criteria that the teachers were *not* using (Johnstone & Raven, 1985; Raven, Johnstone & Varley, 1985).

21.36 Compare Raven, 1984, 1985, 1991.

21.37 The words "high-level" are intended to signal that the low-level measures of the kind produced by Walberg (1974) deflect attention away from the relevant issues.

21.38 Howard, 1980, 1982a,b&c; Moos, 1979, 1980; Walberg, 1974, 1985; Walberg and Haertel, 1980

21.39 Raven, 1980

21.40 Sneddon Report, 1978

21.41 *The Edinburgh Questionnaires* (Raven, 1983, Raven & Sime, 1994); Graham and Raven, 1987; Raven, 1984

22.1 Thompson and Warburton, 1985

22.2 Thompson suggests that one of the lenses which can be used to assist this process of clarification is to arrange the problem definitions, the data they suggest it is important to collect, and the facts to be publicised in such a way as to seek to expose the ends - and whose ends - they serve.

22.3 Howard, 1980, 1982a,b&c

22.4 See Raven (1982) for the problems in the evaluation of pilot programmes and a discussion of the stresses such experimentation can cause.

22.5 Day and Klein, 1987

22.6 Raven, 1994

22.7 Emery et al., 1974

22.8 As its name implies, the *Management by Objectives* movement sets about trying to improve their effectiveness by requiring managers to set clear objectives and monitor progress toward them, avoiding distraction into activities which are not among the objectives.

22.9 To generate new insights and understandings ("intelligence") through a military or industrial intelligence service it is necessary to make sense of confusing and incomplete information. Intelligence officers frequently cannot know beforehand what to observe and report. They depend on their *feelings* ("intuition") and on recognising an emerging pattern to tell them what is significant. The qualities required to make sense of the incoming information include the ability to seek out, collate, re-interpret, and piece together, scraps of unreliable and incomplete information in order to perceive something that has not been seen before and to use what is then perceived to tell them what to attend to and observe next and what to report. The qualities required to do well also include the ability to discern what further information would be required to test initial impressions and the determination to collect that information - perhaps through overt as well as mental "experiment".

But much more is involved. The qualities required to establish military intelligence also include the ability to prise information out of other people and the motivation and the ability to do such things as set up and manage networks of contacts to obtain information, the ability to make good judgments about who possesses the sensitivities and persistence to do well in the field, and the ability to supply those contacts with appropriate guidance concerning the kind of information to be sought. The ability to carry out such tasks clearly involves general intelligence as commonly understood. But it also involves many other motivational dispositions and abilities and the effective use of accumulated specialist knowledge of military operations, people, and systems.

22.10 Coleman, 1974, 1982

22.11 Olsen, 1983

23.1 Schwarz and Thompson, 1990

23.2 Polish Semjicks are open forums - involving the public, experts and counter-experts, administrators, and media personnel - oriented around single issues.

24.1 See House (1991) for an account of the need to get behind the bare data to discern the underlying and invisible structures and processes.

24.2 Kuhn, 1977

- 24.3 An account of the ways in which universities stifle innovative research will be found in Nisbett (1990).
- 24.4 For a discussion see Raven, J.C., Raven, J. and Court (1994).
- 24.5 Hamilton et al., 1977; House, 1991
- 24.6 It has been found that out of every thousand AERA (American Educational Research Association) publications only twenty contain *new* data and in only five of these is the data substantive; the rest are written to satisfy the "publish or perish" machine which characterises all research at the present time.
- 24.7 Cherns, 1970; Freeman, 1973; Roberts, E.B., 1968
- 24.8 Rothschild, 1971
- 24.9 Rothschild (1971) clearly recognised (i) that scientist-initiated basic research is of vital importance and needs to be well funded because only scientists can tell what is likely to succeed (and even then only with great uncertainty), and (ii) that even the development process requires sponsors to fund activities designed to try to find ways of doing things which no one knows how to do. Rothschild wanted 10% of the *total R&D budget* - an enormous sum of money - to be earmarked for scientist initiated research. His widely cited customer-contractor principle applied mainly to the *development* area. But even here it is clear that he recognised he was dealing with a high-risk activity saying that "the contractor does it *if he can*, and the customer pays. (And he did not mean that the customer only paid if the work was successful!) In a later report (Rothschild, 1982) he argued forcefully for a much greater research budget in the social sciences so that they could undertake the kind of large-scale project envisaged here in order to help society to engage with its urgent and pressing problems.
- 24.10 Scottish Council for Research in Education, 1977
- 24.11 Levenstein, 1975
- 24.12 McClelland, 1982
- 24.13 Sigel, 1985, 1986; Sigel and McGillicuddy, 1984
- 24.14 For an illustration of the non educational barriers to educational innovation see Schwartz (1985).
- 24.15 Day and Klein, 1987
- 24.16 For a fuller discussion see Raven (1991). The only way in which it is possible to throw light on the short and long-term, personal and societal, "intangible and hard-to-measure" consequences of changing processes is to adopt a variant of what Hamilton and his colleagues (1977) have termed "illuminative" evaluation. In this, personal observation, data collected through informal interviews, data obtained through the use of unobtrusive measures, and formal quantitative data are combined to yield an understanding of the processes involved. This is then used to generate an understanding of what the short and long-term outcomes of the process are likely to be. This process is heavily dependent on theory - but it is the only approach that has legitimacy in a situation in which there are no measures of the most important outcomes of the process (such as the effects on a student's ability to undertake complex and demanding activities), in which the most important effects (such as economic and social development) will take many years to show up, and in which the most important barriers to the effective operation of the system are deep-seated, non-obvious, and systemic. The approach is in flat contradiction to that advocated by the *Joint Committee on Standards for the Evaluation of Educational Programs and Policies* (Stufflebeam et al., 1981). It cuts across the qualitative/quantitative divide on which so much argument in the field of educational evaluation has focussed (Atkinson et al., 1988; Jacob, 1987, 1988), but it has found endorsement in the work of House (1991) and Salomon (1991).
- 24.17 The way in which the extraordinary requirements of effective evaluation can be approximated are hinted at in the previous footnote, and are discussed in Raven (1991). The problems which effective evaluation poses for evaluators and their deployment are discussed in several chapters in Searle (1985).
- 24.18 Cherns, 1970; Freeman, 1973; Roberts, E.B., 1968, 1969; Tizard, 1990

25.1 Kelton (1991) arrived at similar conclusions. He argued that, in dealing with large-scale situations involving complexity, uncertainty, unknown feedback loops and mutual interactions, delayed effects, and changing priorities, one cannot assess the quality of policy by reference to its accuracy. Certainly one should not think of evaluation as being primarily concerned with post-hoc evaluations of effectiveness. Rather, one needs to evaluate the quality of the *procedures* employed in its development. These need to acknowledge the importance of envisaging the potential relevance of different types of information, to stress the importance of collecting information, sifting and collating it carefully, acknowledge, anticipate and assess the seriousness of risks, result in actions which are both firm and cautious, include provision for monitoring and learning from the effects of action, and involve public debate.

26.1 It may be noted that one should NOT waste time trying to reform the capitalist press. To a degree it will reform itself - change its coverage - as it sees what its customers want.

26.2 Chomsky, 1993; Janicke, 1990; Daenhardt, 1994

26.3 See Adams, Robbins and Stephenson, 1981; Robbins, 1988