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Here's what you must think about nuclear power: grappling with the spiritual ground of children's judgement inside and outside Steiner Waldorf education

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The author has previously argued against 'early closure' – the tendency to close down children's curiosity through an over-zealous approach to issues-based education. Indoctrination might be a result but 'burn-out,' a potentially permanent attitude change that sets in before puberty, is more likely. This article is based on the author's recent work on a project on Steiner Schools in England, funded by the Department for Education and Skills (DfES), and is an examination of the apparent paradox of authority in the Steiner schools. There is a particular view that the teacher is the authority who mediates the world to 7–14-year-old pupils. However, the ultimate goal of Steiner education is freedom and autonomy. In Steiner's words 'our highest endeavour must be to develop free human beings who are able to impart freedom and direction to their lives.' The DfES research has suggested that pupils subjected to teacher authority in the Steiner tradition do so develop and that the spiritual dimension is significant. This requires further research. This article suggests that the preservation of childhood through a spiritually based developmental approach, true to Steiner's ideal of integrating the scientific, the artistic and the religious, may be worthy of attention.

Keywords: Steiner Waldorf; freedom; authority; nature; climate change; judgement; anthroposophy

Introduction

The widespread adoption of nuclear power as an alternative to fossil fuels is an example of the kind of issue on which school pupils are asked to give opinions without a full comprehension of the relevant science. Advocates of such a practice claim that this is a valuable and necessary part of citizenship education, part of 'citizen science' (Ratcliffe and Grace 2003). Recent opponents, such as the Incorporated Association of Preparatory Schools, which represents the elite private junior (4–13) schools in the United Kingdom, have claimed that such causes are 'fashionable' and that they often have 'disastrous effects upon standards of learning' (Marley 2007, 1).

Nuclear power is perhaps one of the most perennial of controversial issues debated by school pupils, but there are plenty of others that appeal to views about what is 'natural.' On the day I drafted this paper, US President George Bush used his personal veto to defy some 75% of the US population over the question of stem cell research. The ground of his value judgement is reportedly his sympathy with, or electoral dependence on, right wing Christian fundamentalism. If this is so, it would encapsulate the fundamental argument of this paper, which is structured around the concept of *early closure* – minds already made up on the basis of unexamined beliefs.

The connection with Steiner Waldorf education to be explored arises through the recent Department for Education and Studies (DfES)-funded study of Steiner schools in England, undertaken by myself and two colleagues (Woods, Ashley and Woods 2005). This paper allows me to

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develop in more depth a discussion that received only superficial treatment in the DfES publication, that of Steiner's views on pedagogical authority and how individual freedom is to be attained through spiritual development. It is probably a highly apposite argument, given the current context of surveillance, government control of personal data, and the proposal to introduce national identity cards. The irony of a government commissioning a report and then apparently looking only superficially at what Steiner had to say about such matters can hardly pass without acknowledgement.

As to nuclear power or indeed stem cell research, I remain (in this paper at least) entirely neutral on the question of what children, or any other group of people, should think. My conjecture is that the entire debate might look radically different if we understood what Steiner meant by freedom. Amongst many other things, it is the freedom to be unconstrained in one's judgements by naive beliefs. The DfES¹ funding allowed all twenty-three English Steiner Waldorf schools to be approached. Twenty-two out of the twenty-three schools agreed to participate in the study. Fifteen of them were visited by members of the research team, and I visited eight of these to conduct detailed case studies based on extended classroom observation and interviews with teachers. During that time I became thoroughly immersed in the anthroposophical view of child development, which is absolutely fundamental to the work of the schools. This paper does not constitute unqualified advocacy of the Steiner approach. It is best seen as an exemplification of an approach which holds out against early closure.

Early closure and its consequences

I have developed a detailed critique of early closure elsewhere (Ashley 2005). The meaning of this term is well illustrated in Ashley (1998, 173) where this 14-year-old 'victim' of environmentalist evangelism confidently explained:

I don't want to hear anything more about the environment because I learned everything I need to know at primary school.

The desire to have children 'signed up' as eco-warriors by the age of 11 was encouraged, it has to be said, by the Department for Education and Employment² own confused response to pressure such as that from the Sustainable Development Education Panel.

It [the school curriculum] should develop their [pupils'] awareness and understanding of, and respect for, the environments in which they live, and *secure their commitment to sustainable development* at a personal, local, national and global level. (DfEE 1999, 11; my emphasis)

This vague and ill-considered exhortation says nothing about the time scale over which such recruitment for the sustainable development cause is to occur. Neither does it acknowledge the problematic nature of sustainable development. I am deeply moved by the beauty of the natural world, profoundly committed to the flourishing of human and other forms of life and gravely alarmed at the prospect of catastrophic climate change resulting from human greed and ignorance. In spite of this, I remain firmly in the sceptic camp with regard to sustainable development along with prominent critics such as Jickling (2001), Bonnett (2004) or Scott (2003). The problem, it seems to me, is that too many people who ought to know better have found early closure a convenient cover for intellectual and moral sloppiness. Only through such early closure can anyone come to believe that the currently fashionable 'economic gain without cultural pain' kind of sustainable development is possible.

How might early closure be addressed? One approach I have described is in the liberal tradition of Hirst and Peters. This looked to 'the synthesis of ideas as an extended project' (Ashley 2005, 192). Drawing on Peters' (1966, 60) view that 'judgement ... is the final flower of much experience,' this proposed that judgement is learned under the tutelage of somebody who already

has it, and is imparted 'on the job,' rather than through lectures. Young people would develop wisdom through a long apprenticeship in the application of knowledge gained throughout their time at school. Unspecified in this conceptualisation, however, was the crucial mentor who would know the young people well, maintain their focus on the issues, respond to their adolescent angst and facilitate their meaningful synthesis of knowledge from disparate disciplines. The fragmented nature of the UK National Curriculum makes such an ideal a distant possibility.

The Hirst and Peters approach is also a rationalist one, aligned closely to positivist and realist conceptions of knowledge. Bonnett (2004) is eloquent, not only in his critique of sustainable development but equally in his critique of rationalism. He offers instead an existentialist approach that calls for a 'right relationship with nature.' This holds out the prospect of a spiritual grounding of children's judgements. A 'right relationship with nature' might look, for example, to a concept such as relational consciousness (Hay 2000). Young people, sustained in their early childhood consciousness of nature (Palmer 1993; Coles 1994) might develop the kind of values base that would lead to pro-nature interpretations of uncertain science and the adoption of a less materialistic, more socially responsible and life affirming lifestyle.

It seems to me that despite this, Bonnett has yet to address a number of questions. At a meta-physical level, how is the 'rightness' of the proposed relationship with nature to be established? On what kind of authority is it to be accorded public approval? At a practical level, how is the early alienation from nature of vast numbers of 'MacDonaldised' urban dwelling children to be addressed? How is the Western hegemony that equates good with increased economic activity to be persuaded that a contraction of gross domestic product, in favour of a better relationship with nature could be adopted as a national (ultimately global) goal?

My most recent treatment of the question (Ashley 2006) has looked at the potential of religion to ground an environmental ethic. The discussion in this paper centred on the anthropocentric fallacy, (i.e., illusion that mankind is above nature and the sole author of fate). The ecocentric critique of anthropocentrism received some favourable treatment in this paper, though was ultimately seen as bounded by an anthropomorphic naturalistic fallacy (the belief that nature has a moral quality and is amenable to contractual obligation). Theocentrism – the idea that nature is good because God created it, and awe and reverence for God's works requires an appropriate human response – looked attractive but was found to crumble as a result of the operation within religion itself of anthropocentric thinking. Hence the question remains open as a spiritual one, if by that is meant a world view based on relational consciousness and the subordination of self.

Waldorf, early closure and authority

It is important to reiterate that this paper is not presented as advocacy of the Steiner Waldorf approach. There are, nevertheless, certain distinctive features of Steiner's philosophy that merit exposition within the early closure/indoctrination debate. It is not easy for the outsider to understand Waldorf education and to interpret it without an understanding of Steiner's lectures and writings is to invite error. A significant paradox lies at the heart of the question discussed in this paper. Children in Steiner schools are generally subject to the authority of the teacher much more than would be the case in most equivalent mainstream schools. Yet the aspirations of Steiner education are clearly stated by Steiner himself. This quotation from Steiner's lectures to teachers is found prominently displayed in most if not all of the schools:

Our highest endeavour must be to develop free human beings, who are able out of their own initiative to impart purpose and direction to their lives.

Steiner saw freedom as the consequence of individual freedom, not the freedom of nations that was such an issue in the aftermath of the First World War:

Culture, in order to thrive, requires freedom – not the freedom of nations, in whatever sense, but the freedom of the individual. (Steiner 1919, 3)

This view of individual freedom needs to be understood in the context of two of the most significant of all his works. In the *Philosophy of Freedom* (Steiner 1919) it is clear that Steiner views freedom as a spiritual quality. He claimed to speak from direct knowledge of the spiritual world but this is open to much misinterpretation and misrepresentation. It is not a religious statement. Neither is it a statement dependent on the apprehension of supernatural powers. It is a statement about how any individual might gain access, through disciplined study, to a consciousness of humanity that is ultimately within. This is fundamentally what Steiner meant by ‘spiritual science’ and each child’s spirit has to be seen as absolutely sovereign in this respect.

This sovereignty can only thrive when the conditions of what Steiner called a threefold social order are in place. In *Basic Issues of the Social Question* (Steiner 1919), he sets out his proposals for the threefold social order, often referred to as social threefolding. He was clearly influenced by the upsurge of Marxist philosophy at the time and drew attention to its many shortcomings, including the scientistic alienation of the proletariat from soul life. In social threefolding, the three realms of polity, economy and culture must be kept separate. In simple terms, this means that government must not interfere with the work of teachers, still less with the spirit of the child. Teachers operate within the cultural realm which is said to include all that enters human society through the unfettered exercising of human activity such as thinking, moral judgment and creativity in all the arts, scientific research, religion, education, invention and enterprise. Steiner explained the social difficulties of his age in terms of the cross contamination of one sphere or realm by another.

It is probable that he would view some current ideas on children’s rights in similar terms. It is important that the sovereignty of the child’s spirit must not be confused with contemporary notions of individualism grounded in declarations of rights that emphasise a child’s right to choose. The undeveloped spirit for Steiner is not free. The inner life of the individual is subject to deterministic mental forces which must be overcome through a protracted period of striving. The anthroposophical view of child development that underpins Waldorf education guides the schools to take a long term view of this. It is not something that can be attained by the age of eleven or fourteen, hence the possibility that Waldorf education has something to say about early closure.

It is quite impossible to explain this in one short article, though some further exposition is given in the discussion below. For the present, two points need to be reiterated and appreciated:

- Steiner’s views on spirituality and freedom are not the same as the conventional ‘awe and wonder’ definitions that attract OFSTED [Office for Standards in Education, the UK Schools inspectorate] (for example ‘gasps of wonder accompanying the uncovering of an ostrich’s egg in science’ [OFSTED 1995, 62]);
- Freedom cannot be the result of a declaration of human rights (still less the rights of the child). Each individual must strive for it, and the process is protracted.

The individual’s striving for spiritual freedom takes a long time. The anthroposophical view of child development would see the years 0–21 as the foundation of it. The result that is hoped for is an unusually free thinking but socially and culturally connected individual who may be disposed to challenge prevailing orthodoxies, particularly if these are the result of proletarian interpretations of scientism (Steiner 1919). This freedom arises, not out of a declaration of the rights of the child, but out of the teacher as an authority figure undertaking the sacred task of guiding the child’s spirit on its journey. Steiner’s own words confirm that authority is to be understood as part of a loving respect for the child’s own being:

It is most important that devotion and admiration for the teacher and love for the teacher should come about as of itself. Otherwise it is of no value. Any devotion which is forced or which is based upon

the rules and laws of the school is of no value for the development of the human being. It can be experienced quite positively when children are educated in accordance with their own being they are most likely to be devoted to their teacher. (cited in Calgren 1972, 77)

Steiner Waldorf education has strong links to movements for the preservation of childhood, such as the Alliance for Childhood (<http://www.allianceforchildhood.org/>). It is in general based on a philosophy that would preserve and extend childhood, seeing a protracted period of preparation for adult life as compatible with the sophistication of the species. The deep-seated need is, as in most other models, for security. During the early years, children develop security through fundamentally learning that the world is good. This is done in Steiner schools through imitation of the teacher which is equated with *willing* – learning to control the limbs. Constant imitative and purposeful motion dominates. A start at this stage on formal, book learning would be regarded as out of touch with the child's nature. Above all, the Waldorf early-years teacher must be an authority who is good and children must imitate good actions.

The deeply spiritual nature of teaching requires the teachers to know their children really well. Communication is an intimate human act that is easily disrupted by devices such as computers, or even books. Thus, children aged between the ages of 7 and 14, although taught subjects by a range of specialists, retain the same class teacher over an eight year period for the 2-hour 'main lesson' each morning. During these years the sense of value is developed through *feeling* – an aesthetic phase during which pedagogy is dominated by artistic approaches to learning. The child should learn through this to practise beauty, that the world is beautiful and to develop intimate and lasting connections with those structures, beings and representations that make it so. The child is not yet ready to confront the ugliness and brutality that is environmental degradation and inhumanity. The teacher remains as an authority to interpret the world for the children who are not yet sufficiently fledged to use the media of mass-information without mediation.

From 14 upwards, class guardians who remain with the group throughout upper school assume the mentoring role, thus supplying the essential continuity that may not always be present when teachers change more frequently. ICT would be more likely to be found in the final ≥ 14 phase when *thinking* becomes the dominant force. Scientific rationality dawns and begins to layer new meanings and questions over previous feelings and impressions. Steiner did not specify that the main learning task here is that the world is threatened, but the rational interpretation of the overwhelming scientific evidence of climate change might well result in such a conclusion being reached by today's young people. It would be naive to imagine that Steiner educated children would be encountering this for the first time, but they would possibly encounter it with a freshness of mind unavailable to children exposed too early to complex science and the woes of the world.

Crucially, there is a transition in the role of teacher authority. Steiner suggested that children who had begun puberty would challenge teacher authority and teachers in Steiner upper-schools need to be authorities on their subject rather than authorities in themselves. Teachers with inadequate subject knowledge will soon be found out by these increasingly free thinking and questioning young people.

Though there are the three distinct phases of willing, feeling and thinking, these are only phases of dominant growth. The three activities coexist and the claim would be that a thinking teenager remains a feeling one. This is reflected in the Waldorf curriculum itself. Young people study the full range of subjects up to leaving school at eighteen or nineteen. The arts and humanities are considered to be essential, but so equally is a scientific worldview. The approach is a spiral one, and a combination of the class teacher's authority and the collegiate activity of teachers in pedagogical meetings works to keep the curriculum from fragmentation. The 2-hour 'main lesson' block, which is a continuous through to the end of upper school, provides children and young people with the opportunity to explore meaning.

Woods, Ashley and Woods (2005) cite a number of examples of curriculum content that indicate the kind of relationship with nature that might be developed through the Waldorf curriculum. This is by no means a sentimental one rooted in idealised or sanitized vicarious experiences of nature. The permeating theme is that of how man works through nature to make the world a fit place for human habitation. This assumes importance in class 3 (age nine years) when Steiner suggested that children begin to experience themselves as separate from nature and discard the animism of earlier years in which the 'Earth, Sun plants and animals must speak to each other as if they were human beings' (Calgren 1972, 98). The nine-year-old becomes insecure through this realisation and mounts the first significant challenge to teacher authority as a result.

The curriculum at this stage is dominated by a range of activities centred on farming and building. Children might typically design and construct a hen house and keep some hens in it. Nine year old pupils in the Woods, Ashley and Woods (2005, 55) study spent a week camping on a biodynamic farm in East Sussex after undertaking a practice camp in Epping Forest. The same age group of pupils at another school were observed during their outdoor work sessions. Here they worked over a period of several weeks to create a complete village community in a local copse. The work included clearing sites for where they would build their shelters and creating a series of 'streets' that would link the various different shelters together by clearing the undergrowth (Woods, Ashley and Woods 2005, 52). This kind of activity, working with and through nature to create a better habitation for mankind probably promotes a different kind of relational consciousness than an emphasis on a nature that is 'out there' and in need of conservation.

A renewed challenge to authority at ages 11–12 is described by Steiner. In this case, it is the dawning of rational thought and intellect that is said to be responsible. The class teacher has another three years with the children ahead of him or her at this stage. Not all cope well with the transition to the teenager's egoism and desire to control and influence the world (Woods, Ashley and Woods 2005, 95). This transition is reflected in the curriculum where, for example, the study of Roman law is considered appropriate. Most significantly, 'the child wants to ally his or her will forces with science and technology to shape the world and this is reflected in the introduction of woodwork and the study of minerals' (Woods, Ashley and Woods 2005, 76). This is not an ecocentric or deep ecological outlook.

Steiner wrote of the alienation of the worker from the cultural traditions that allowed him to take sustenance from spiritual sources (1919, 3), astutely observing how the higher classes had avoided this fate through appropriating art to themselves. Thus there is the need for art to play such a fundamental role in the curriculum for all. However, he clearly regarded an informed understanding of science as essential for the proletariat to overcome their lack of freedom with regard to the mechanical age that determined their lifestyle and social dependence. This was noted in the Woods, Ashley and Woods study, where a class 12 (ages 17–8) was observed during a lesson on stem cell research. This was not a group of pupils who had opted for science A level, but the whole year cohort who were continuing to study all subjects of the curriculum.

Importantly, the teacher explained that Steiner had indicated that this was an appropriate age for pupils to begin to make judgements on the basis of the analysis of rational evidence. He described the way in which science was made accessible to all pupils, including those who had not done the General Certificate of Secondary Education (GCSE) (Woods, Ashley and Woods 2005, 52). This would be a good example of holding out against early closure and a clear statement that debating stem cell research or nuclear power is not believed to be suitable activity for the under 16s. This final episode is in many ways the most remarkable. Given the great difficulties that mainstream science education has got itself into (House of Commons Science and Technology Select Committee, July 2002; Wellcome Trust 2002) and the fact that it has taken until now (September 2006) for the University of York Science Education Group to finally address the problem through a new style GCSE,³ Steiner might be seen as being many years ahead of his time.

In summary, this section has shown that Steiner Waldorf education offers alternatives to a number of deeply embedded structural or ideological constraints:

- A grounding in the values of neo-liberalism, individualism and economic growth as self-evidently good and an end in itself;
- The spirit of the child ceasing to be the primary concern of education, which is no longer attentive to child development as a guide to the appropriateness of the curriculum;
- Young people treated primarily as future units of economic production rather than uniquely valuable spiritual beings in need of social and cultural fulfilment;
- A fragmented curriculum from which it is hard for young people to obtain a sense of higher meaning or purpose;
- Young people's experience of academic mentoring as frequently fragmented and discontinuous;
- Science education in disarray and increasingly rejected by young people; and
- The arts and humanities regarded as frivolous in comparison to subjects associated with economic utility, such as ICT.

There might, through the answers offered to these difficulties, be a challenge to materialism, alienation from nature and the illusion that indefinite growth is possible. The question is, does it work?

Discussion: Does it 'work'?

The quotation marks, of course, refer to the idea of evidence-based practice ('what works'), currently a key feature of neo-liberal thinking. This approach, which has for some time now been favoured by government, is by no means short of critics (Hammersley 2001; Simkins 2005). Doubtless it is founded on a view of what is best for young people but it is a view that Steiner would surely dispute, given the extent to which it transgresses the principles of social threefolding.

A significant difficulty to be faced, of course, is that of where Steiner himself derived his own authority. Steiner was against telling people what to think, but there has to come a point of regression when we reach questions about the source of authority for such fundamental precepts as social threefolding. We might look to an empirical approach. Is Waldorf education resulting in free thinking individuals who make wise judgements? It is difficult to know. In this discussion I explore some of the epistemological difficulties that relate to the government treatment of knowledge (through DfES and its successor, DCSF) and the uncertainty that is inevitable if matters are not closed down early.

The policy context of the DfES study was that of choice and diversity. A comforting rhetoric of schools that will 'contribute to the family of schools and to the development of the education system' (DfES 2001, paras 1.6 and 5.17) justifies the entry of new providers, such as Academies which 'can benefit pupils by bringing fresh ideas and perspectives and particular skills and expertise to schools' (DfES 2001, para 5.22). Thus a proposal for a state funded Steiner academy in the United Kingdom is now well advanced. As Alexander (2004) points out, however, the DfES are masters of comforting rhetoric bolstered by seductive images of smiling children. Behind this façade lies an iron policy agenda which puts Steiner education on a head-on collision course with DfES policy.

An immediate arena of conflict is over assessment. Steiner education is fundamentally opposed to such practices as testing and league tables because these are the instruments of governance, not the attributes of human spiritual activity. A teacher quoted in Woods, Ashley and Woods would appear to be speaking out of social threefolding when they emphasise that 'Education belongs to the spiritual/cultural realm and should be free of politics entirely' (2005, 113). The degree to which political ideologies such as neo-liberalism and state control of curricula and examinations represent

a transgression of this principle is clear, and the only reasonable conclusion would seem to be that Steiner would judge the social organism to be currently in quite a poor state of health.

In *Social Issues, meditative thinking and the threefold social order*, Steiner observes that,

To look at our society and economy as they really are is to see that we must put an end to the currently prevailing chaos of everyone wanting to acquire things out of egoism without taking into consideration the relationship between our own individual production and that of society as a whole (Steiner 1991, 103)

There is a clear identification here of individualist consumerism that might please many within current day environmentalist movements who yearn for sustainable development. However, Steiner's description of the economic realm as 'transformation of the products of nature into products suitable for use by human beings' (Heaf 1999) might raise the hackles of the died-in-the-wool deep ecologist (particularly with the thrown in references to mining and hunting). The Waldorf curriculum does require children to be taught about an economic sphere that is said to mean the transformation of the products of nature into products suitable for use by human beings. Everything from the acquisition of the products of nature (e.g. mining, hunting) to farming, manufacturing, trade and end use (consumption) is part of this sphere.

Social threefolding was conceived in an era when Marxism rather than climate change was the principal demon to be conquered. We have to ask whether a curriculum in which references to the steam locomotive can still be found is adequate for the twenty-first century and thus find a new set of tensions between the loyalty of Waldorf teachers to the curriculum as it came to be devised through Steiner's lectures and the attempts of the DfES and its successors to devise a curriculum responsive to the science of global climate change and stem cell research.

An empirical approach to the nuclear power question is one that would require us to build, operate and decommission a new generation of nuclear stations and examine the world's climate in sixty years' time. The difficulties in knowing whether we have the 'right relationship with nature' here should be obvious. Is clear moral judgement drawing on art, scientific research and religion disentangled from governance and economics possible? Is such judgement a viable means of arriving at the 'right relationship with nature'? The fundamental difficulty here is that, not only do we not know whether Steiner Waldorf education 'works' in terms of creating the 'right relationship with nature,' we do not even know what the 'right relationship with nature' really is.

Conclusion

DCSF (i.e., government) policy does seem to be predicated on the assumption that the answers to all difficult questions (from whether synthetic phonics works to whether a pedagogy driven by the Scholastic Aptitude Test regime is good for children and society) are known. It is arguable then that the DCSF, in keeping with a spectrum of ideologies ranging from neo-liberalism to religious fundamentalism, effectively operates its own form of early closure. Careful study of Woods, Ashley and Woods should leave the reader in little doubt that the question of 'what works' is framed by government within the narrow confines of test and examination results which are thought to be the form of educational currency on which the free market can operate (Lawton 1992). There could hardly be a greater violation of the threefold social order than that.

However, when such matters as nuclear power and the stability of the world's climate are at risk, are we to place faith in the alternative epistemologies offered by Steiner? The spiritual freedom that might result from education grounded in anthroposophy could be described as 'dangerous freedom' – a term attributable to Giroux (1983). It is dangerous because we cannot know what will be the will of the free thinking individuals that Steiner education will have nurtured into the world. It is certainly dangerous for any ruling political elite, whose power base

rests on imposed limitations to popular participation in critical cultural life. It is dangerous also to those who feel that they have the answer to global problems such as climate change for it curbs their power to indoctrinate their views.

Waldorf education clearly does not align itself with ecocentrism. Its outlook on 'right relationships with nature' probably falls somewhere between the anthropocentric and the theocentric (Ashley 2006), though neither concept does adequate justice to the anthroposophical view. What can be stated with some confidence is that the hope is for spiritual freedom to exercise a will with regard to nuclear power out of something other than narrow self-interest justified by the ignorance that comes through early closure. This, I have to state on a personal note, I find attractive.

The alternative to early closure inevitably involves risk taking, sometimes as in the cases of nuclear power or human stem cells, on a very grand scale. The argument I would conclude with is that the 'certainty' of early closure is perhaps the bigger risk. We have only to look at the history of education to see how readily government departments have discarded old certainties in favour of new research naively imagined to provide new certainties. The ultimate question is then, which is the more dangerous, early closure or spiritual freedom? The 'dangerous freedom' of Steiner Waldorf education at least needs to be investigated further.

Notes

1. Subsequently renamed the Department for Children, Schools and Families.
2. A former term for the DfES. The UK government reorganises its education department frequently, and many alternative acronyms thus arise.
3. University of York Science Education Group. 2002. *Twenty-first Century Science*, Oxford: Oxford University Press.

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References

- Alexander, R. 2004. Still no pedagogy? Principle, pragmatism and compliance in primary education. *Cambridge Journal of Education* 34, no. 1: 7–33.
- Ashley, M. 1998. Economics and the loss of innocence. In *Children as citizens*, ed. C. Holden and N. Clough, 176–182. London: Jessica Kingsley.
- . 2005. Tensions between indoctrination and the development of judgement: the case against early closure *Environmental Education Research* 11, no. 2: 187–197.
- . 2006. Finding the right kind of awe and wonder: the metaphysical potential of religion to ground an environmental ethic. *Canadian Journal of Environmental Education* 11: 88–99.
- Bonnett, M. 2004. *Retrieving nature: education for a post-humanist age*. Oxford: Blackwell.
- Calgren, F. 1972. *Education towards freedom*. East Grinstead: Lanthorn Press.
- Coles, R. 1994. *The geography of childhood: why children need wild places*. New York: Farrar, Strauss and Giroux.
- DfEE. 1999. *The National Curriculum: handbook for teachers in England and Wales*. London: DfEE/QCA.
- DfES. 2001. *Schools – achieving success*. White Paper. London: DfES.
- Giroux, H. 1983. *Theory and resistance in education: a pedagogy for opposition*. London: Heinemann.

- Hammersley, M. 2001. Some questions about evidence-based practice in education. Paper presented at the British Educational Research Association Annual Conference, 13–15 Sept. 2001.
- Hay, D. 2000. Spirituality versus individualism: why we should nurture relational consciousness. *International Journal of Children's Spirituality* 2, no. 1: 38–48.
- Heaf, D., 1999. Homepage of Threefolding the Social Organism. www.threefolding.freeuk.com/intro.htm (accessed 14 July 2006).
- Jickling, B. 2001. Environmental thought, the language of sustainability, and digital watches. *Environmental Education Research* 7, no. 2: 167–180.
- Lawton, D. 1992. *Education and politics in the 1990s: conflict or consensus?* London: Falmer.
- Marley, D. 2007. 'Trendy' lessons to be ditched. *Times Educational Supplement*, 16 Nov., available online at http://www.tes.co.uk/search/story_id=2463263 (last accessed 8 January 2008).
- OFSTED. 1995. *Framework for the inspection of schools*. London: HMSO.
- Palmer, J. 1993. Development of concern for the environment and formative experiences of educators. *Journal of Environmental Education* 24, no. 3: 26–30.
- Peters, R. 1966. *Ethics and education*. London: Allen and Unwin.
- Ratcliffe, M., and M. Grace. 2003. *Science education for citizenship: teaching socio-scientific issues*. Maidenhead: Open University Press.
- Scott, W. 2003. *Sustainable development and learning*. London: Routledge Falmer.
- Simkins, T. 2005. 'What works' or 'What makes sense?' *Educational Management Administration and Leadership* 33, no. 1: 9–26.
- Steiner, R. 1919. *Basic issues of the social question*. Herndon, VA: Anthroposophic Press.
- . 1920. *Social issues meditative thinking and the threefold social order: 11 lectures by Rudolf Steiner*, trans. J. Reuter. Herndon, VA: Anthroposophic Press.
- . 1991. *Social issues: meditative thinking and the threefold social order*, trans. J. Reuter. Herndon, VA: Anthroposophic Press.
- Wellcome Trust. 2002. The House of Commons Select Inquiry into Science Education. Available online at www.wellcome.ac.uk/assets/wtx022398.pdf (last accessed 5 January 2008).
- Woods, P., M. Ashley, and G. Woods. 2005. *Steiner schools in England*. London: DfES.