

Fluoridation : The Left Behind?

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In the past few years, anti-fluoridation scientists have launched a powerful new attack, criticizing the evidence used to claim that fluoridation actually works to reduce tooth decay. The two most important figures in this attack, applied mathematician Mark Diesendorf and former dental administrator John Colquhoun, used their statistical critique effectively at the first ever international scientific debate on fluoridation, held in Brazil in May 1988. The debate over fluoridation, which has been going strong since the late 1940s, shows no sign of abating.

To many it may seem controversial just to say that there is a real scientific debate over fluoridation. After all, fluoridation is one of those public health measures that most progressives have never had to think twice about. Presented as beneficial and safe, it seems the ideal solution to the problem of tooth decay, at least for anyone who believes that the state can play a beneficial role.

All that is required is putting enough fluoride in public water supplies to bring the concentration to about one part per million. Tasteless, odourless and said to be harmless, all children have to do is drink the water and the benefits of better teeth will be with them for a lifetime.¹

There are several reasons why fluoridation has long seemed to be a progressive's dream health measure. Perhaps most importantly, it serves all sectors of the population in a way that no alternative can. It requires no will-power or money to reap the benefits. The poor may not be able to afford as much personal dental treatment as the rich, but they can benefit just as much from fluoridation.

Fluoridation also came with the correct backers: the dental and medical professions, especially public health dentistry. Dentists who promoted complicated restorations or cosmetic treatments

can be criticized for creating a demand for their services and padding their pocketbooks. But dental profession support for fluoridation, which would dramatically reduce tooth decay and apparently could only reduce the demand for dental treatment, has seemed a true case of professional altruism.

Back in the 1940s, when the initial push for fluoridation occurred in the United States, the key promoters were from the state of Wisconsin, long known as the home of the progressive movement. The measure had the correct pedigree.

Fluoridation was endorsed by the US Public Health Service in 1950, and shortly after by the American Dental Association and the American Medical Association. During the 1950s many local communities in the United States, and later overseas, began to investigate and implement fluoridation for their water supplies. Eventually the measure was endorsed by the World Health Organization. Fluoridation has all the correct endorsements.²

Fluoridation then, added up to the progressive's perfect health measure: prevention rather than cure, serving all the population on public water supplies without prejudice, promoted by a group which apparently had nothing to gain from its implementation. The alternatives, especially fluoride tablets and fluoride treatments by dentists, required individual initiative, were relatively ineffective, and were more expensive. The only acknowledged physiological effect of fluoride, at one part per million, was the mottling (staining) of teeth in a small fraction of the population and of course reduction of tooth decay by about half.

Since the first attempts to implement fluoridation, there has been a vociferous popular opposition. The opponents have argued that the benefits of fluoridation have been exaggerated or unproven, that there are health risks to at least a fraction of the population, and that fluoridation is compulsory medication at an uncontrolled dose and hence a violation of individual rights.

The scientific case against fluoridation was well developed by the 1950s. When the US Public Health Service endorsed fluoridation in 1950, the controlled trials begun in 1945 (comparing fluoridated and unfluoridated cities) were not yet over. Philip Sutton carried out an impressive statistical demolition job on these trials, a critique which has never been properly answered.³ This scientific critique of the effectiveness of fluoridation has been resurrected and advanced in the 1980s by Diesendorf and Colquhoun.⁴

Opponents have claimed that fluoridation poses a number of

important health risks. Among the most important and best backed scientifically are allergic and intolerance reactions, skeletal fluorosis, and genetic effects including cancer. Physicians Frederic Exner and George Waldbott, among others, impressively documented the health risks in the 1950s.⁵ These risks have remained a central plank in the opposition case.⁶

The scientific arguments against fluoridation had little effect on the Left's support for fluoridation. There was a scientific case for fluoridation as well, and it was easy to ignore the opposition case. As well as science, value judgements and social policies were involved. Fluoridation wore the mantle of progressive science and progressive politics in the 1940s and 1950s.

This identification of fluoridation as socially progressive was solidified by the nature of the early opposition, which included the extreme right-wing. The John Birch Society and the Ku Klux Klan were among those who condemned fluoridation as a left-wing plot. Fluoridation was, after all, a government measure, and in the United States of the McCarthy era this was tantamount to socialism. In Australia, the League of Rights, a racist group, was prominent in the opposition to fluoridation in the early years. With these sorts of groups involved in the opposition, not to mention various suspect fringe health practitioners, it would have been difficult for any self-respecting leftist to even consider questioning fluoridation.

Many sociologists, siding with the dental profession, have attempted to explain away the persistence of substantial public opposition to fluoridation. The opponents have been assessed as irrational, as uneducated, or as alienated from society and using fluoridation as the outlet for their emotions. They have also been assessed as confused by conflicting claims and, as a result, often voting for the status quo, namely no fluoridation.⁷

The image, developed in the 1950s, of the fluoridation opponent as a crank with possible right-wing inclinations remains with many people today. Yet the intervening years have seen many developments which call for a reconsideration.

First of all, the extreme right-wingers have long since faded from prominence in the fluoridation debate. Admittedly, support for individual rights and resistance to 'compulsory medication' still play a major role in the opposition, but the connection with racism and anti-socialism seems to have little salience. The issue is largely ignored by most contemporary conservatives, including the New Right.

The rise of environmental consciousness casts a new perspective

on fluoridation. Claims about intolerance reactions and possible genetic effects from even tiny doses of fluoride no longer seem so outlandish in the aftermath of Rachel Carson's *Silent Spring* and decades of concern about environmental chemicals. Environmentalists such as Diesendorf and Wendy Varney are prominent among the new critics of fluoridation.

The fate of fluoridation in Europe also gives cause for reflection. While most of the English-speaking countries are highly fluoridated (Australia 66 per cent, Canada 36 per cent, New Zealand 50 per cent, United States 49 per cent), less than 10 per cent of the population in the United Kingdom drinks water with added fluoride, while the figure for continental western Europe is less than 1 per cent. Among industrialized capitalist societies, those in which the state has the strongest role in the formation of medical policy have lower levels of fluoridation. It is in those English-speaking countries where medical services are the most privatized that fluoridation has been most successful. This difference is not due to differences in support by experts: dental researchers and dental professions have consistently supported fluoridation. The urgency of rampant tooth decay has been no less in Europe. European waters do not have higher levels of natural fluoride than waters elsewhere. Nor have anti-fluoridationists been better organized in Europe. The key decisions not to push harder for fluoridation in Europe have been made in precisely the sort of government bureaucracies which were the target of right-wing antagonism in the United States. Studies explaining European governments' rejection of fluoridation are yet to be carried out. Suffice it to say that the pattern of spread of fluoridation throws into question the automatic association between opposition and right-wing individualism.

The traditional view that professions are altruistic groups of practitioners dedicated solely to the public good has come under increasing attack since the 1970s. Claims that doctors are altruistic because they have supported the use of antibiotics are not persuasive to those who point out that there is still enough disease to keep the limited supply of practitioners busy, especially in a society which does not confront the social roots of disease in poverty, pollution and the promotion of unhealthy lifestyles by corporate interests such as tobacco companies. Yet the claim that dentists are altruistic because they support fluoridation has not been met with the same scepticism. Arguably, fluoridation, depending as it did on dental research and epidemiological assessment, provided dentistry with a symbol of its status as a science-based profession.

A final reason for reconsideration of the fluoridation issue is the existence of a fairly sophisticated analysis of the role of corporate interests in fluoridation. Wendy Varney's book *Fluoride in Australia* gives the most comprehensive account.⁸ The argument goes like this. Since the 1930s, the aluminium industry has been greatly concerned about public reaction against its massive volume of fluoride waste products. The industry has supported fluoridation as a partial solution to this problem. A vulgar analysis would point to the direct profit in being able to sell the waste for use in public water supplies, but this has little basis. The real advantage of fluoridation to the aluminium industry is that it sells fluoride to the public as a beneficial substance rather than a nasty poison. Fluoridation thus is of great symbolic value to the aluminium industry, in the same way that food irradiation is of symbolic value to the nuclear industry.

Fluoridation is also of symbolic value to the manufacturers of sugary foods. Sugar is admitted to be a prime cause of tooth decay; fluoride promises to make it possible to have better teeth without worrying about diet.

While there is some evidence of direct links between the aluminium and sugary food industries and the promotion of fluoridation, such links are not essential for this explanation to make sense. From the point of view of those dentists and public health officials concerned about tooth decay, there are several paths that could have been taken. An obvious one is to focus on diet and to tackle the interests promoting sweets, sugary foods and beverages and 'junk food' generally. A few dentists have indeed made long-term efforts in this direction, to seemingly little avail. It was much easier to avoid this confrontation with powerful corporate interests and to promote fluoridation. There were no corporate obstacles to fluoridation. The opposition came instead from health-food quacks, some religious minorities and right-wingers. The benevolent image of the dental profession was not harmed by confronting such opponents.

This left critique of the promotion of fluoridation is not without its shortcomings. It contains no explanation of the limited adoption of fluoridation in several state socialist countries, nor indeed of the failure of fluoridation to become established in capitalist western Europe.

Intriguingly, the claim that fluoridation was being promoted by capitalist interests has long been made by opponents, including many of the early right-wing opponents. But prior to Varney's book, I know of only one published left-wing critique of fluoridation.⁹

Why has fluoridation been treated as unproblematic by the Left? Apparently not because of any examination of the scientific evidence, nor even because of much examination of the social context. Rather, fluoridation arose in a period in which public health measures were seen as socially progressive and in which professions were trusted as socially progressive, at least when promoting public health measures. The opposition, developing in the depth of the Cold War, became associated with right-wing individualism. Leftists, especially scientists, could not become critics without severe repercussions for their reputations and their careers.

The relegation of anti-fluoridationism to untouchability for the Left was not simply a cultural phenomenon. The promoters of fluoridation, especially leading figures in the dental profession, have made systematic efforts to thwart and smear opponents. There have been many dentists and doctors who have opposed fluoridation over the years, but many potential opponents have kept quiet because they have seen what has happened to colleagues: vocal opponents have been cautioned, cold-shouldered and sometimes debarred from their dental associations. Researchers critical of fluoridation have been threatened with withdrawal of funds. The leading dental and medical journals have remained rock-solid in their support of fluoridation and in their refusal to publish opposition articles. The American Dental Association published a dossier on opponents, containing highly damaging quotes, which has been used to damn the more respectable critics through guilt by association, including association with the extreme right-wing.¹⁰

The fluoridation issue provides one more challenge to 'scientism on the Left', namely the Left's frequent uncritical acceptance of the claims of scientific experts.¹¹ It has been a long hard road for much of the Left to re-examine the issue of nuclear power. Much more than nuclear power, fluoridation has come to be identified as progressive and its opponents as reactionary. The challenge to the Left to look at the issues and not just the social alignments of the partisans, is correspondingly greater.

1. The case for fluoridation is given for example in Frank J. McClure, *Water Fluoridation: The Search and the Victory*, Bethesda, MD, US Department of Health, Education, and Welfare, 1970; John J. Murray & Andrew J. Rugg-Gunn, *Fluorides in Caries Prevention*, Bristol, Wright, 1982; National Health and Medical Research Council, *Report of the Working Party on Fluorides in the Control of Dental Caries*, Canberra, Australian Government Publishing Service, 1985.

2. The classic and readable account of the early promotion of and opposition to fluoridation, by a proponent, is Donald R. McNeil, *The Fight for Fluoridation*, New York, Oxford University Press, 1957.
3. Philip R. N. Sutton, *Fluoridation: Errors and Omissions in Experimental Trials*, Melbourne, Melbourne University Press, second edition, 1960.
4. John Colquhoun, 'Child dental health differences in New Zealand', *Community Health Studies* 11, 2, 1987, pp. 85-90; Mark Diesendorf, 'The mystery of declining tooth decay', *Nature* 322, 10 July 1986, pp. 125-9.
5. F. B. Exner & G. L. Waldbott, James Rorty ed., *The American Fluoridation Experiment*, New York, Devin-Adair, 1957.
6. George L. Waldbott with Albert W. Burgstahler & H. Lewis McKinney, *Fluoridation: The Great Dilemma*, Lawrence, Kansas, Coronado Press, 1978; John Yiamouyiannis, *Fluoride: The Aging Factor*, Delaware, OH, Health Action Press, second edition, 1986.
7. Robert L. Crain, Elihu Katz & Donald B. Rosenthal, *The Politics of Community Conflict: The Fluoridation Decision*, Indianapolis, Bobbs-Merrill, 1969; Brian Martin, 'The Sociology of the fluoridation controversy: a reexamination', *Sociological Quarterly* 30, 1, 1989, pp. 59-76.
8. Wendy Varney, *Fluoride in Australia: A Case to Answer*, Sydney, Hale and Iremonger, 1986.
9. M. Klerer, 'The fluoridation experiment', *Contemporary Issues* 7, 1956, pp. 119-67.
10. Brian Martin, 'Analyzing the fluoridation controversy: resources and structures', *Social Studies of Science* 18, 1988, pp. 331-63; Waldbott, *A Struggle with Titans*, New York, Carlton Press, 1965.
11. One of the major tasks of *Radical Science Journal* was to challenge scientism on the Left.