Antifluoridation propaganda material — the tricks of the trade

R. J. Lowry¹

This article deconstructs material used in anti-fluoridation propaganda (organised dissemination of information to assist the cause of a movement). By highlighting the devices used it should help supporters of water fluoridation to expose anti-fluoridation propaganda when they come across it, and improve their power to lobby successfully for more water fluoridation schemes (and help defend existing ones)

Supporters of water fluoridation have a slot to put up with. Firstly there is the low priority given to dental health by society. Secondly, there has been so little recent progress in extending water fluoridation in the United Kingdom. Thirdly, there is anti-fluoridation propaganda.

Anti-fluoridation propaganda has an insidious effect. Undoubtedly it frightens some people off water fluoridation, including those in positions of power (local authority members, water company board members). Admittedly, people who succumb to anti-fluoridation lobbying usually have their minds set against water fluoridation before being exposed to the propaganda — at best, it exposes unspoken or unresolved personal doubts. Nevertheless its existence has a negative effect on water fluoridation progress.

For those with professional know-how, anti-fluoridation propaganda is easy to spot. But health professionals also have a difficult time rebutting the propaganda because they do not have the tools to expose its flaws. They 'know it when they see it' but falter when a detailed demolition job is required. Thus, anti-fluoridation propaganda often goes unchallenged, thereby allowing it to go on doing its pernicious work.

Tricks of the Trade: Main Types

When considering anti-fluoridation propa-

ganda, there are three main types of faults or problems that occur in the material: problems with truth, argument or emotion.

I will now look at these propaganda tricks in more detail, using examples from everyday life and widely available anti-fluoridation material.

Truth Problems

This set of problems stems from the use of data. Either the data are flawed or facts are used incorrectly. Truth problems include the use of straightforward lies, or evidence/testimony that is flawed; failing to discriminate between argument and assertion, fact and opinion; bias (selectivity and card-stacking); and terminological high jinks.

The straightforward lie (our first truth problem) commonly occurs in anti-fluoridation propaganda material. Examples of anti-fluoridation untruths include 'fluoride does not have a significant impact on tooth decay', and 'it may even be a factor in AIDS, diabetes, ME, genetic damage, MS and immune system breakdown'. This compares with the everyday untruth that 'the Earth is flat'.

The next truth problem (quoting flawed evidence or testimony) is, if anything, more frequently found in anti-fluoridation propaganda than lies. An everyday example of

For those with professional know-how, anti-fluoridation propaganda is easy to spot. But health professionals also have a difficult time rebutting the propaganda because they do not have the tools to expose its flaws.

this tactic is 'Professor Jimmy Edwards says the Earth is flat' ('Prof' Edwards was a well known comedian). 'Fluoride is a potent inhibitor of human immune cells' is an anti-fluoridation example. Here the author is citing laboratory experiments which have been shown to be badly conducted, poorly extrapolated and of no relevance to fluoride at the concentrations found in drinking water.

The third truth problem (failure of discrimination between argument/assertion, facts/opinions) leads the propagandist to state 'fluoride is more toxic than lead and slightly less toxic than arsenic' which equates in everyday terms with the statement 'The Earth is flat because Professor Jimmy Edwards says it is.' This is an assertion rather than an argument. No evidence is provided, merely the assertion.

Bias may be used in anti-fluoridation propaganda and it can be divided into two types: selectivity and card-stacking. Selectivity means presenting the evidence only to support or refute a case, no matter how strong or how much evidence there is supporting the opposite view. So the flat-earthist would say 'Studies have shown that the Earth is flat.' In fact, none of the studies

Truth Problems

- The use of straightforward lies or evidence/testimony that is flawed.
- Failing to discriminate between argument and assertion, fact and opinion.
- Bias (selectivity and card-stacking).
- Terminological high jinks.

¹Consultant in Public Health Medicine/Senior Lecturer in Dental Public Health.

*Correspondence to: Department of Child Dental Health, Dental School, Framlington Place, Newcastle On Tyne NE2 4BW

REFEREED PAPER

Received 08.08.96; Accepted 11.10.00

© British Dental Journal 2000; 189: 528–529.

were done this century.

The anti-fluoridationist says 'All recent large-scale surveys have shown minimal benefit to teeth from water fluoridation.' In fact over many years, the vast majority of large-scale surveys have consistently shown that water fluoridation gives demonstrable benefits to the health of teeth. The propaganda case is supported by selecting only those few studies which support the case.

Another example is 'Research worker Danielson found evidence that fluoridation of water supply to one part per million was associated with an increase in the rate of hip fracture in men and women'. What the author failed to mention was that the article from which this quotation was culled was also the subject of an editorial review. In that, the editor states that current studies are unable to establish 'a direct cause and effect relationship between water fluoridation programmes and hip fracture prevalence'. The editor goes on to advise that readers should 'recognise the limitations of studies that focus on but one aspect of the pathogenesis of hip fractures.'

Card stacking (a special form of selectivity) means presenting numerically distorted data, for example by recalculating data in a selective way. An everyday example of card stacking is, 'One in five people surveyed do not believe the Earth is round.' It could be that one in five people questioned did not answer or were 'do not knows'.

An anti-fluoridation propaganda example is 'Weaver noted that infant mortality was higher in the fluoridated area compared with the non-fluoridated area'. What the author of this example of stacking failed to mention was that infant mortality was higher but perinatal mortality was lower so that the overall difference between deaths of children in the fluoridated and non-fluoridated areas was nil. The original author 'Weaver' alluded to other more plausible causes of differences in mortality of children between the areas studied.

Another example of anti-fluoridation propaganda is 'age dependence of cancer mortality related to water fluoridation'. The authors used crude death rates rather than (normally used) standardised death rates to

impeach water fluoridation. Standardised rates are normally used in cancer studies because they take into account, for example, the fact that cancer is predominantly a disease of old age, so communities with many old people have had more cancer — due to the age make-up and nothing else. This is a typical card stacking trick used by anti-fluoridation propaganda.

The final truth problem in anti-fluoridation propaganda material is terminological high-jinks, which plays on the precise meaning of words. So in the following propaganda 'fluoride is a poison' and 'fluoride is more toxic than lead'. While the author realises that the terms are being used in the context of a highly concentrated form of the substances being considered, the reader is left to assume that all fluoride is poisonous/toxic. The truth is that the terms poison and toxic are here being defined quite differently (and deliberately) by author and reader. It is the author that is engaging in the high jinks, not the reader.

The give away words here are 'given that': other words to look out for are remember, point out, see and remind.

What exactly does the author mean by 'poison' and 'toxic'? Just about anything you care to mention could be described as these things if you look hard enough (for example, 'a round Earth is a dangerous world'). What do we mean here by 'dangerous'?

Argument problems

So far, the tricks used in anti-fluoridation propaganda have been based on flawed fact or interpretation of facts. Argument problems are more concerned with the way an argument is put together for the reader.

Argument Problems

- Flawed logic
- Begging the question
- Rash generalisations
- Sophistry
- The crafty conflation/transfer.

They include flawed logic, begging the question, rash generalisations, sophistry and the crafty conflation/transfer.

Arguments based on logic (deductive or inductive arguments) rely on certain relationships between words and phrases. Flawed logic, for example, breaks these rules. The following pseudo-deductive anti-fluoridation argument breaks the rules and is thus flawed: 'over the past 20 to 30 years, there have been a substantial rise in asthma, auto-immune disease and post viral syndrome. The common factor in all these is an altered immune system. Fluoride is a potent inhibitor of human immune cells.'

The deduction (falsely) made here is that fluoride (in water) has caused all these ill-effects. The logic breaks down when the deductive argument is stretched too thinly. Thus the immune system is presented as the only common factor (there must be other common factors — for example common agents in the cause of these conditions, increasing reporting of these conditions, more accurate diagnosis and so on). Yet the author asserts that because fluoride has been shown to effect the immune system, therefore fluoride has caused all these illnesses. This is flawed logic and shows no such thing (why is not the concentration of fluoride that inhibits the immune system in the laboratory not emphasised and contrasted with the concentration of fluoride in the water drinking population in whom this rise in illness has occurred?)

An everyday version says 'This map is flat. This map is a true representation of the Earth. Therefore the Earth is flat.'

The second argument problem is begging the question. This usually means where something questionable is taken for granted (or where an argument is offered in which the conclusions to be argued is already stated in the question). So that 'you will remember that the Earth is flat' is every bit

Those who write material promoting water fluoridation must avoid using these and other devices which are the hallmarks of propaganda.

as much begging the question as is 'given that so much evidence against fluoride...' The give away words here are 'given that': other words to look out for are remember, point out, see and remind. If we remind, point out etc to someone or take something for granted, we make an assumption that the reader agrees with the premise all along. Phrases in common use that may forewarn of rash generalisations (the next argument problem) include 'everyone knows that' and 'many people would argue that'. So we are already on our guard for a rash anti-fluoridation generalisation when we read 'it is common knowledge that all dentists are brain-washed over water fluoridation at dental school'.

Sophistry is a subtle argument problem. Essentially it is using a clever, convoluted and inductive type of argument to confuse a reader into accepting an untruth. A good (or bad depending on your point of view) anti-fluoridation example runs as follows: 'above all else water fluoridation is an attack on freedom of choice. True freedom of choice includes being able to drink water free from fluoride. In a truly free society, fluoride free water should be available to all — those who want fluoride can add it themselves. Forcing everyone to drink it whether they want it or not is the thin end of the wedge (what next, bromide?), mass medication and antidemocratic.' Here, on the grounds of freedom of choice, water fluoridation is portrayed as against choice (but there is a choice argument for water fluoridation — especially for those who

benefit most). The argument is further clouded by the 'adding it themselves' element, which neatly ignores the fact that those most in need of water fluoridation are precisely those that will never be able to exercise the adding-it-themselves option.

The final argument problems (crafty conflation/transfer) are similar. They rely on placing damaging words close to other (target) words so that the target words are tarnished by association. Everyday example: 'What a dangerous thing would be a round earth. Anti-fluoridation example: putting the word 'fluoride' near 'industrial waste', 'alzheimer disease', and 'toxic'. By putting these words close to each other, some of the nastiness rubs off onto fluoride. That is transfer. A crafty conflation in this context would be worded 'ladies and gentlemen, I give you one of the most toxic substances known to man, fluoride'. The crafty conflation and transfer are sometimes difficult to distinguish. A further example is 'Substances used in the fluoridation of public water supplies are used primarily as insecticides and rodenticides'.

Emotional problems

Emotional problems in propaganda material include persuader words, emotive language, name-calling, bandwagon, plain folks, flag-waving and you-won't-believe-this amongst others.

Persuader words are common in anti-fluoridation propaganda material ('contrary to popular belief') as is the use of emotive language ('toxic', 'spanner in the works', and 'cover up'). 'Are they (dentists) mad or bad?' is an example of name-calling. The propagandist also loves the bandwagon - 'Over 4,000 people have written to one water company objecting to a new (water

fluoridation) scheme.'

Other emotive ploys include plain folks ('How can we the public make informed choices when we are given one-sided information (on fluoridation) by health authorities?'), flag-waving ('It is time the British people stood up and said no to water fluoridation.') and you-won't believe-this ('Believe it or not, despite the mounting evidence that fluoride is harmful, dentists are still calling for more').

Practical applications of this knowledge

Given the propaganda tricks, how should one deconstruct propaganda when you see it (in letters to your local paper, in leaflets sent to your water company or local authority)? I suggest the following routine:

- 1 Look first for emotion problems.
- 2 Next look for argument problems.
- 3 Ask an expert for help with truth problems.
- 4 Do not allow yourself to be overcome by the negative tone of the piece.

In an editorial in the *BDJ*, Mike Grace¹ wondered if he and his dental colleagues could have been doing more to increase the supply of water fluoridation to people in the United Kingdom over the years. One of the things we can be doing is to take every opportunity to counter anti-fluoridation propaganda. But many health professionals feel frustrated because they do not know how to do that, other than to cry 'foul'. Many just give up trying, which is a pity because given their inside knowledge they could do so much. I hope this exposé of the anti-fluoridation propaganda trade will help all those colleagues to renew their enthusiasm. We need their help and support.

I would like to add one final comment. Those who write material promoting water fluoridation must avoid using these and other devices which are the hallmarks of propaganda. The case for water fluoridation is strong enough without. Indeed, the use of propaganda techniques could undermine that case severely.

1 Grace M. A Feeling of Guilt. *Br Dent J* 1995; 178: 43.

Emotional Problems

- Persuader words
- Emotive language
- Name-calling
- Bandwagon
- Plain folks
- Flag-waving
- You-won't-believe-this