



Using “microlives” to communicate the effects of lifestyle risk factors

Public communication of chronic lifestyle risks is generally opaque and potentially misleading.

David Spiegelhalter suggests that “microlives” may improve comprehension

A recent study reported that consumption of an extra portion of red meat (85 g) a day was associated with a hazard ratio for all cause mortality of 1.13.¹ This was greeted in the popular media with exaggerated headlines and little comprehension—for example, “if people cut down the amount of red meat they eat... to less than half a serving a day, 10% of all deaths could be avoided” (*Daily Express* 4 Mar 2012).

Such relative risk terminology is known to communicate a greater size of risk than measures of absolute risk.² Current guidelines from the Association of the British Pharmaceutical Industry state that relative risks should not be used without absolute risks when reporting the results of clinical trials (clause 7.2). Absolute risks are sometimes provided in terms of the numbers of early deaths delayed: for example, the recent estimate that a 40% reduction in alcohol consumption to a median of 5 g/day would delay 4500 deaths a year in England.³

An alternative absolute measure is change in life expectancy, for example, an estimated average two year extension by reducing excessive sitting in the US population to less than three hours a day.⁴ Hazard ratios can be converted to changes in life expectancy if a lifelong effect from a specified age is assumed, so if the above hazard ratio for eating red meat is applied to UK life tables from, say, age 35, a lifetime habit of an extra portion of red meat per day is associated with a reduction in male life expectancy of around one year, from age 80 to 79.

This does not look very impressive, as people tend to dismiss effects that are perceived to lie in the distant future. As author Kingsley Amis said, “No pleasure is worth giving up for the sake of two more years in a geriatric home at Weston-super-Mare.” But the loss of one year over 45 years is 1/45th, which pro rata is roughly one week a year or half an hour per day. So an alternative, possibly more engaging, narrative is that a lifelong habit of eating burgers for lunch is, when averaged over the lifetimes of many people,



Burning up the microlives

“No pleasure is worth giving up for the sake of two more years in a geriatric home at Weston-super-Mare”—Kingsley Amis

associated with a loss of half an hour a day in life expectancy. Which is, unless you are a quite a slow eater, longer than it takes to eat the burger.

The microlife: a definition

A half hour of adult life expectancy can be termed a microlife as it is loosely equivalent to one millionth of life after 35. An average 35 year old man and woman in England has a life expectancy of 45 and 48 years respectively (394 000 and 420 000 hours) assuming current mortality rates. Since life expectancy has been increasing by three months a year for decades,⁵ a current 35 year old might realistically be expected to live another 55 years, which is 481 000 hours—or nearly a million half hours.

Specific hazard ratios can be converted to life expectancies using interim life tables for England and Wales,⁵ and the ratio of the effect on life expectancy to the life expectancy remaining gives a measure of the implicit change in the speed at which life is being led. The table illustrates the translation of selected hazard ratios into “speed of ageing.” A common hazard ratio is assumed for men and women unless separate estimates are available. These assessments are very approximate and based on numerous assumptions. The hazard ratios are primarily derived from recent meta-analyses, but inevitably they rely on published results that may be contentious, particularly in dietary studies.

Estimated effects of long term lifestyle and demographic risk factors on change in life expectancy for men and women aged 35 years, and corresponding change in microlives (30 minutes of life expectancy) per day of exposure.* See appendix 2 on bmj.com for studies on which these estimates are based

Risk factor and definitions of daily exposure	Men			Women		
	Hazard ratio	Change in life expectancy (years)	Microlives per day	Hazard ratio	Change in life expectancy (years)	Microlives per day
Behaviours						
Smoking ^{w1} :						
Smoking 15-24 cigarettes	2.17	-7.7	-10	2.17	-7.3	-9
Alcohol intake ^{w2} :						
First drink (of 10 g alcohol)	0.90	1.1	1	0.90	0.9	1
Each subsequent drink (up to 6)	1.06	-0.7	-½	1.12	-0.6	-½
Obesity ^{w3} :						
Per 5 units above body mass index 22.5	1.29	-2.5	-3	1.29	-2.4	-3
Per 5 kg above optimum weight for average height	1.09	-0.8	-1	1.10	-0.9	-1
Sedentary behaviour ^{w4} :						
2 hours watching television	1.08	-0.7	-1	1.08	-0.8	-1
Diet:						
Red meat, 1 portion (85 g, 3 oz) ^{w5}	1.13	-1.2	-1	1.13	-1.2	-1
Fruit and vegetable intake, ≥5 servings (blood vitamin C >50 nmol/L) ^{w6}	0.66	4.3	4	0.75	3.8	4
Coffee intake ^{w7} :						
2-3 cups	0.90	1.1	1	0.87	0.9	1
Physical activity ^{w8} :						
First 20 minutes of moderate exercise	0.81	2.2	2	0.81	1.9	2
Subsequent 40 minutes of moderate exercise	0.94	0.7	1	0.94	0.5	½
Statins ^{w9} :						
Taking a statin	0.91	1	1	0.91	0.8	1
Air pollution ^{w10} :						
Living in Mexico City v London		0.6	-½		0.6	-½
Demography						
Sex ^{w11} :						
Being male v female		-3.7	-4		-	-
Geography ^{w12} :						
Resident of Sweden v Russia		-14.1	-21		-7.6	-9
Era ^{w12} :						
Living in 2010 v 1910		13.5	15		15.2	15
Living in 2010 v 1980		7.5	8		5.2	5

*Estimates based on assuming a constant hazard ratio from a lifetime exposure, with comparisons relative to most frequent category.

Smoking works out at about 10 microlives for every 20 cigarettes smoked, around 15 minutes per cigarette (a previous basic analysis⁶ estimated 11 minutes pro rata loss in life expectancy per cigarette). The table shows that, averaged over a lifetime habit, a microlife can be “lost” from smoking two cigarettes, being 5 kg overweight, having the second and third alcoholic drink of the day, watching two hours of television, or eating a burger. On the other hand microlives can be “gained” by drinking coffee, eating fruit and vegetables, exercising, and taking statins. Air pollution has been placed under “behaviour” since exposure is, in principle, optional.

The table also shows the effects of demographic factors. Thus, the survival penalty of being male is roughly equivalent to smoking eight cigarettes a day, living in Russia rather than Sweden is equivalent to smoking 40 cigarettes a day for a man and 20 a day for

a woman, while living in 1910 or 1980 as opposed to the present is equivalent to around 30 or 10 cigarettes a day respectively.

The idea of microlives encourages a metaphor of “accelerated ageing” due to harmful exposures: for example, smoking 20 cigarettes a day (10 microlives) is as if you are rushing towards your death at 29 hours a day instead of 24. Similarly, the idea of “heart age” (the age of an average person who has the same cardiovascular risk profile as yourself) is becoming widely used,⁷ while communicating “lung age” has been effective in promoting smoking cessation.⁸

Conclusions

The metaphor of speed of ageing and use of the term microlife are intended for popular rather than scientific consumption, but they could also be useful for health professionals. They could perhaps best be communicated with phrases such as “When averaged over a lifetime habit of

many people, it is as if each burger were taking 30 minutes off their life.” These quantities bring long term effects into the present and help counter temporal discounting, in which future events are considered of diminishing importance.¹²

Despite the limitations (listed on bmj.com), a reasonable idea of the comparative absolute risks associated with chronic exposures can be vividly communicated in terms of the speed at which one is living one’s life. Of course, evaluation studies would be needed to quantify any effect on behaviour, but one does not need a study to conclude that people do not generally like the idea of getting older faster.

David Spiegelhalter professor of biostatistics and Winton professor for the public understanding of risk, Statistical Laboratory, University of Cambridge, Cambridge CB3 0WB, UK
dspiegelhalter@statslab.cam.ac.uk

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The corporate capture of public health

Jennifer Mindell and colleagues describe how the UK government is increasingly handing over its role of health policy maker to private corporations

Society has changed fundamentally over the past 30 years. Citizens have become consumers with status proportional to purchasing power, and former public spaces have been enclosed and transformed into private malls for shopping as recreation or “therapy.” Step by step, private companies, dedicated to enriching their owners, take over the core functions of the state. This process, which has profound implications for health policy,¹ is promoted by politicians proclaiming an “ideology” of shrinking the state to the absolute minimum.

These politicians envisage replacing almost all public service provision through outsourcing and other forms of privatisation such as “right to provide” management buyouts.² This ambition extends far beyond health and social care, reaching even to policing and the armed forces.

Superficially, a case can be made for privatisation. Economic theorists argue that the creative energy of private companies will unlock innovation. Freed from state bureaucracy they will find new, clever ways of doing things better and cheaper. Yet the reality is often different. They appear more “efficient” than the public sector providers they replace, but they achieve this efficiency only by cutting wages or by failing to deliver what they promise. The list of failures grows daily, from the very public failure of the security services company G4S at the 2012 Olympics to the local problems of Serco’s out of hours general practitioner service in Cornwall.³

KEY MESSAGES

Current public policy in the United Kingdom is dominated by an ideology of personal greed, leading to the transfer of public services to private corporations

Corporate interests have subverted even a minimalist state role by, for example, promoting ineffective voluntary agreements; putting forward spurious technical or economic arguments; and marketing of disinformation

The government has handed over its role of policy maker to the private sector through outsourcing deals funded by taxpayers

These developments have profound and, so far, inadequately appreciated, implications for health



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Coca-Cola and McDonald's at the London Olympics: part of the problem, not the solution

So how is it that this new model, which often costs more (when all costs are considered) but delivers less, is allowed to persist? One obvious reason is political support. In part, this is ideological, but the ideology is encouraged and sustained by the temptations arising when politicians and senior civil servants know they will be offered safe and profitable retirement sinecures from which they can promote the interests of their new employers.

While calling for a minimalist state in public, less visibly they encourage the role and the spending of the state to expand—whether in protecting their property interests (and increasingly what they claim as intellectual property), subsidising with benefits the low wages of their employees or bailing them out when things go wrong—because they have become “too big to fail.”

Yet the contradictions extend to the heart of the relationship between the state and business. The state is charged with advancing the welfare of its citizens; a company’s purpose is to increase its owners’ wealth, as enshrined in law (for example, the UK Companies Act, section 172). Crucially, despite claims made for corporate social responsibility and “public-private partnership,” any duty on directors to “have regard to” their company’s impact on the environment, society, and staff is subordinated to their obligation to maximise profits.

To maintain these contradictions, companies must write the rules of the game, aided by their collaborators in government. Remarkably, they are being allowed to do so. The following examples show the consequences of these contradictions for public health.

Resisting regulation through “voluntary cooperation”

Companies, understandably, seek a regulatory environment that allows them to thrive. As the basis for much regulation is to protect employees or the general public (whether from dangers at work, hazardous products, or mis-selling of financial products), a key goal for business is to shift responsibility from the company to the individual and then be seen rather as a partner in helping those individuals to make good choices than a threat to their health. The obesity epidemic is portrayed not as a consequence of aggressive marketing of cars and energy dense, nutrient poor food but rather as the idleness of gluttonous consumers who refuse to take enough exercise.⁴

Smoking is presented as a matter of individual choice, totally divorced from the millions spent on promoting cigarettes in ways designed to attract, and promote addiction in, the next generation of smokers. The tobacco companies say they want to prevent young people from smoking, while funding youth antismoking campaigns in the full knowledge

that by portraying smoking as “adult” they will actually increase initiation.⁵

In these ways, companies seek to control the health promotion agenda. However, this will happen only if companies maintain a veto over policy. And for this to happen, the regulatory regime must be voluntary rather than statutory. In this they have succeeded, even though there is now a wealth of evidence that voluntary agreements are generally ineffective. This is exemplified by the history of tobacco control in the United Kingdom: those voluntary measures advocated by the tobacco industry and supported by previous UK governments achieved little.⁶ As Daube has noted: “Manufacturers know better than anyone that tobacco control legislation is designed to succeed, but voluntary agreements are designed to fail, and in that they succeed brilliantly.”⁷

Resisting regulation on technical or economic grounds

If governments do adopt legal regulations, it is important for companies to minimise the impact of these on profits. One argument they often use is that the proposed regulation will be either technically unfeasible or too expensive. The availability of “reduced ignition propensity” cigarettes (designed to extinguish themselves if not being actively smoked) is now mandatory throughout the European Union, despite the industry long arguing that it faced “insuperable technical difficulties,” a position it maintained even after New York state had successfully issued a mandate for such cigarettes to be available.¹⁰

The food industry claimed that to ban food that contained trans fat would be too difficult and costly,^{11–12} even though some European countries and US cities and states have shown it to be entirely feasible.¹³ The industry’s claims often invoke the spectre of job losses, yet previous claims that pub, restaurant, tobaccoist, and manufacturing jobs would be threatened by smoke-free legislation and bans on tobacco advertising have proved groundless.¹⁴ Indeed, the only studies seeming to show job losses are sponsored by the tobacco industry.¹⁵ Similar claims have been made for “traffic light” labelling on packaged food.¹⁶

Subverting regulation by spreading disinformation

Growing cynicism about certain industries has obliged these industries to find others to promulgate their messages. This involves “third party advocacy”—often by “independent” organisations that are fronted by “the public” or “independent experts,” who advance pro-

OVERSEEING THE REVOLVING DOOR

Corporations can exert influence on ministers, civil servants, and special advisers while they are in post by holding out the possibility of employing them once they are no longer in post, and can benefit from their insider knowledge once they have stopped working for the government. This highly unsatisfactory situation should be rectified by the code of conduct overseen by the Advisory Committee on Business Appointments, from which those in senior positions in government should seek advice if they take up any new appointment within two years. However, as described in detail by the House of Commons Public Administration Committee,⁴⁴ this process is not working. The system is described as opaque and confusing, and its voluntary nature creates scope for abuse. The Public Administration Committee calls for a system of clear, statutory regulation, with enforceable penalties, overseen by an independent ethics commissioner with the power to initiate his or her own investigations, similar to the model in place in Canada.

industry arguments. Increasingly industries are supported by manufactured “grass-roots” campaigning, now termed astroturfing. The organisation FOREST (whose stated mission is “to protect the interests of adults who choose to smoke or consume tobacco” but which is funded principally by the tobacco industry), the National Federation of Retail Newsagents, and the Tobacco Retailers Alliance all campaign against smoke-free legislation and promotional bans using industry funding. The Taxpayers Alliance uses its substantial corporate funding to oppose tobacco control and support the interests of the oil and automobile industry.¹⁷

The neoliberal think tank Reform, which has actively propagated private sector involvement in the NHS,¹⁸ receives financial support from management consultancies benefiting from the NHS reforms;¹⁹ companies such as G4S and Serco (that is, companies to which public service organisations contract out their services), and the City of London Corporation. All these organisations would benefit greatly if Reform’s vision of an NHS based on private health insurers and providers were realised. The interests of the drug industry are advanced by the patient groups that it supports and by doctors willing to promote its products. Elsewhere, influence may be more subtle. The boards of the health policy think tanks—the King’s Fund and the Nuffield Trust—include individuals from the City of London Corporation, management consultancies McKinsey and KPMG, and until recently the insurance company UnitedHealth.

Having created such vehicles, these industries then used them to communicate their corporate messages. Tactics refined by the tobacco industry have been adopted by, among others, food and alcohol producers seeking either to counter independent research findings or, more often, to sow confusion about their validity. These tactics are now well understood and have given rise to the term denialism.²¹

They include cherry-picking the evidence, moving the goal posts by setting impossible standards of proof, paying false experts, and promoting logical fallacies. Thus, studies funded by industry often reach systematically different conclusions from independent research^{22–23} or suppress unfavourable findings.²⁴ Studies on secondhand smoke undertaken by the cigarette industry were 88 times more likely than independent research to report it as harmless.²⁵ For many years the tobacco industry argued erroneously that better ventilation was the solution to secondhand smoke rather than banning smoking in public places.²⁶

The sums spent by industries in spreading their corporate messages are enormous. Car manufacturers report spending 2.5–3.5% of their revenue on advertising, while spirits manufacturers allocate 5.5–7.5%.²⁷ However, this is only the start. Industry lavishes money on lobbyists and on entertaining policy makers.^{28–29} The food industry spent €1bn (£836m; \$1.4bn) on lobbying the EU against traffic light labelling on food.²⁷ Tobacco industry lobbyists successfully influenced the adoption of an impact assessment procedure by the EU that emphasised economic impacts but paid scant attention to health impacts, thus benefiting their products.³⁰ The drug industry spent \$116m on lobbying in the United States in 2011,³¹ with €40m declared in the EU: there is reason to consider the second figure was a substantial underestimate.³²

Corporate “capture” of regulators

If regulations are to be implemented, the industries they are regulating will, if at all possible, hijack or “capture” the regulatory process. Problems are inevitable where the regulators rely on those industries for their funding, something that has caused considerable concern in the US, where the Food and Drug Administration (FDA) receives much of its income from drug manufacturers.³³ Concerns have also been voiced about the relationship between the pharmaceutical industry and the European Medicines Agency, which, Ben Goldacre has shown, has sometimes placed the interests of the industry above public safety.³⁴ The Chinese



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government was sufficiently concerned about covert industrial influence on pharmaceutical regulation that when the head of China's Food and Drug Administration was caught receiving bribes, he was executed—to enhance his colleagues' respect for the regulatory process.³⁵

Corporate capture of policy making

The ultimate prize for industry is to determine government policy. It has achieved this in England with the Department of Health's "Public Health Responsibility Deal," in which committees dominated by industry agree programmes ostensibly intended to tackle the health problems arising from the products they manufacture or distribute. Some organisations, such as the Royal College of Physicians, have withdrawn from this discredited process, but others cling to the hope, against the evidence, that they might play a positive role.

Such examples, where industry influence on policy is brought into the open, are rare. More often it takes place behind closed doors. This is what is believed to have happened with the 2012 Health and Social Care Act, which promotes the commercial interests of the insurance, pharmaceutical, healthcare, and financial services industries.³⁷ The Department of Health's draft Operating Framework for 2012-13 for the NHS in England even sets a target, PHF09, to raise the proportion of the NHS budget that funds non-public sector healthcare providers. The government's claims, disputed from the outset, that its legislation would support healthcare provision by charities and social enterprises, are now seen to be false as these smaller organisations cannot compete against the large corporations, many of which contribute generously to political coffers.

The centrality of US consultancy company McKinsey to the Department of Health's policy illustrates the interweaving of commercial agendas and health policy making: the Department of Health has hired McKinsey repeatedly since 1970,²⁹ enabling it to advertise inside knowledge to clients seeking to enter the emerging English healthcare industry.³⁷

Conclusion

Evidence based health legislation is much more effective than voluntary agreements with industry,⁷ but it faces stiff opposition. Recent disclosures about the "revolving door" between senior civil service posts, ministerial briefs, and corporate sinecures³⁷ demonstrate wholesale commercial contamination of the making of health policy. As the World Health Organization has noted: "there are areas, such as public health policy-making and regulatory approval, where the concept of partnership with for-profit enterprise is not appropriate."⁴² It is inevitable that the resulting policies maximise benefit to shareholders rather than the public. Patient information, leading to informed choice, has been the government's mantra.

Clinicians have more day to day contact with patients than do politicians. They traditionally keep away from politics in their consultations but have been vocal about policies that affect health, such as availability of tobacco and alcohol. Perhaps it is time to tell patients exactly how government and profit making businesses are affecting their health and healthcare. At the same time, it may be time for public health professionals to go back to their roots, consider all the determinants of health, and challenge the prevailing wisdom.⁴³

Appointing the fox to guard the hen house by delegating policy making and regulation to commercial interests represents a dereliction of government responsibility that will inevitably raise suspicions of undue influence.

Jennifer S Mindell clinical senior lecturer, Epidemiology and Public Health, University College London, London WC1E 6BT, UK, j.mindell@ucl.ac.uk

Lucy Reynolds research fellow, London School of Hygiene and Tropical Medicine, London WC1E 7HT, UK

David L Cohen consultant physician, Northwick Park Hospital, Harrow HA1 3UJ, UK

Martin McKee professor of European public health, ECOHOST, London School of Hygiene and Tropical Medicine, London WC1E 7HT, UK

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Learning from the abolitionists, the first social movement

The British movement to abolish slavery has much to teach us about how to get the world to respond to seemingly intractable problems, argues

Richard Smith

Social movements are fashionable in health. Frustrated by the inability of governments and other authorities to make change happen from the top, those wanting to change the world hope for social movements that will make change happen from the bottom. George Alleyne, the former director general of the Pan American Health Organisation, thinks that a social movement is needed to get the world to respond adequately to the pandemic of non-communicable disease. Those who want to improve quality in healthcare aspire to be a social movement. But can you create a social movement and can they change the world? We can learn much from what many have called the first social movement, the British movement to abolish slavery.

What is a social movement?

There is no universally agreed definition of a social movement, but here is a reasonable one from Wikipedia (itself a sort of social movement): “They are large informal groupings of individuals and/or organizations focused on specific political or social issues, in other words, on carrying out, resisting or undoing a social change.” Charles Tilley, an American professor of social science, defines a social movement as having three components: a campaign, a sustained, organised public effort making collective claims on target authorities; a repertoire of activities like public meetings, petitions, boycotts, statements to the media, and pamphleteering; and what he calls

WUNC (worthiness, unity, numbers, and commitment).¹

The civil rights movement and the women’s movement are classic modern examples of social movements, and within healthcare the movements to both promote and restrict abortion rights and the global activities against tobacco might be seen as social movements.

The origins of the abolition movement

On 22 May 1787 12 men, nine of them Quakers, met in a printing shop in 2 George Yard in the City of London determined to end slavery. It seemed impossible. At that time more people were slaves than were free, and the great empires of the world, not least those of Greece and Rome, had been built on slavery. The British economy depended on slavery, and sugar, coffee, and rum, which people loved, were produced by slaves. Many rich men and institutions, including the Church of England, owned plantations worked by slaves, and most members of parliament had close links to slavery. Yet by March 1807 slave trading was abolished in the British Empire, and within a lifetime of when the men first met in 1787 slavery itself was abolished in the empire. It cost the British 1.8% of their gross domestic product over 50 years.

The result, said Alexis de Tocqueville, was “absolutely without precedent . . . If you pore over the history of all peoples, I doubt that you will find anything more extraordinary.” Adam Hochschild, whose inspiring and highly readable

Fig 1 | *The Slave Ship* by J M W Turner. A representation of the Zong massacre

book *Bury the Chains* I have used extensively in writing this article, described it thus: “The men who successfully abolished slavery invented many of the techniques we now associate with campaigns: national organisations with local chapters, campaigns writing to political representatives, report cards on how those representatives have voted, investigative reporting, petitions, marches, badges, boycotts, logos, fliers, books of evidence with readings in book stores, newsletters, use of the media.”²

Slavery, of course, still exists, and the Americans fought a civil war over the issue more than half a century after the abolitionists began their work. Even to abolish slavery within the British Empire was a tortured journey full of false turns and interrupted by major events like the French revolution, but those who wanted to abolish slavery never lost their outrage and commitment. “The abolitionists succeeded,” writes Hochschild, “because they mastered one challenge that still faces anyone who . . . [wants to make major social change]: drawing connections between the near and the distant.”²

There had been protestors against slavery before 1787, particularly among Quakers, and the Zong trial of 1783 fired objections to slavery among some. Zong was a slave boat that took too long to cross the Atlantic from Africa to the slave markets of the new world. Many slaves

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Lessons for social movements from the abolitionists

- What seems impossible can be done—and in a comparatively short time
- The leaders and the followers need deep belief in the cause
- A connection between the issues and people's everyday lives is essential
- The course of the movement is unlikely to be smooth—and may well look hopeless at some point
- Powerful, first hand accounts of the issue are invaluable
- Cases that shock and capture the problem and the public's attention may be crucially important—even if swept to one side by the authorities
- Social movements should pick an achievable aim and be businesslike
- Evidence, lots of it and of high quality and impact, is important
- Performance (perhaps these days through television or social media) with stories and props is needed for success
- Successful movements have different sorts of leaders with different skills, but they must work together
- An important person, perhaps a politician, who “needs an issue for his or her own advancement” can be very useful
- Action must be constant and on many fronts
- Iconic pictures can be stunningly effective
- Evidence must be substantial, multifaceted, strong, clear, and speak for itself
- Boycotts can be powerful
- It's important to be tactically shrewd
- Success is unlikely to be complete



Fig 2 | Josiah Wedgwood's seal
“Am I not a man and a brother”

“Never doubt,” said the anthropologist Margaret Mead, “that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has”

died on most trips, and dead slaves were worthless. Slaves were, however, insured at £30 each, and if the ship ran out of water then slaves could legitimately be thrown overboard and insurance paid. The ship wasn't running out of water, but the captain threw 133 live slaves overboard and claimed on insurance. The insurers took a legal case against the ship owners but lost. Granville Sharp, a musician, friend of King George III, and eventual prominent abolitionist, then brought a case for murder, but he too lost. The case did, however, attract a lot of publicity and stimulate feeling against slavery. J M W Turner later painted the episode.

In 1785 stimulated by the Zong trial the vice chancellor of Cambridge University set a title for the prestigious annual Latin essay prize of *Anne liceat invitos in servitutem dare?*—Is it lawful to make slaves of others against their will? The prize was won by Thomas Clarkson, who when he entered the competition had little interest in slavery. But he found himself overwhelmed with horror: “In the day time I was uneasy. In the night I had little rest. I sometimes never closed my eyes for grief.” He became one of the main leaders of the abolitionists, and Hochschild thinks him more important than William Wilberforce, the abolitionist most remembered now. Samuel Taylor Coleridge described Clarkson as “a moral steam engine,” and his tireless touring of the country and collecting of evidence was fundamental to the abolitionists' case. Clarkson's prize winning essay was published by James Phillips,

the owner of the printing shop in George Yard, and Clarkson was one of the 12 men at that initial meeting.

Advancing the cause

Clarkson became the secretary of the 12 and Granville Sharp the chairman. From the beginning they were businesslike, opening a bank account, hiring a lawyer, and drawing up long lists of potential supporters and funders. They decided that only three people were needed for a quorum, illustrating how they trusted each other. A crucial question was whether to aim for emancipation of slaves, which they all wanted, or the cessation of trading, which was more achievable and would ultimately end slavery because of the high death rate of slaves. As practical men all but Sharp opted for ending trading.

From June 1787 Clarkson began his long trips to gather evidence on the horrors of slavery, finding witnesses, and organising sympathisers. Working 16 hours a day, he visited both Bristol and Liverpool, cities that grew rich from the slave trade. He gathered stories from 20 000 seamen, and “the very paper seemed to smoke and burn with his outrage.” Slave ship doctors provided vital information.

Clarkson began to be not just an organiser but also a performer, speaking regularly in public against the slave trade. He collected “props” for his performance—handcuffs, shackles, thumb-screws, and a speculum oris, which was used for prising open the mouths of slaves who tried to

kill themselves by refusing to eat. In the autumn he reached Manchester, a city that tripled in size in the last quarter of the 18th century, was home to the industrial revolution, and abuzz with radical ideas. The people of Manchester supported Clarkson and sent an antislavery petition to parliament signed by 10 000 people, one of every five people in the city.

Enter William Wilberforce

Before starting on his journey Clarkson attended a London dinner party that included the writer James Boswell, the artist Joshua Reynolds, and William Wilberforce. Wilberforce was a member of parliament, a close friend of William Pitt, the prime minister, independently wealthy, and an evangelical Anglican.³ Described as “all soul and no body,” he was said with his mesmerising voice to have “the greatest natural eloquence in England.” Like all MPs he needed “an issue” on which to build his name, and by the end of the dinner after Clarkson had spoken on slavery Wilberforce said he would take up the issue “provided no person more proper could be found.” Clarkson, the agitator, needed Wilberforce, the insider. The point of social movements is to get the majority to change their views.

The movement began to develop momentum. The committee published a regular newsletter of 500-1000 copies for supporters and raised funds, including through what may have been the world's first direct mailing. The entrepreneur and potter Josiah Wedgwood produced the

famous seal “Am I not a man and a brother.” (fig 2) The image, said Benjamin Franklin, was “equal to that of the best written pamphlet.” John Newton, a former slave trader and the author of *Amazing Grace*, turned passionately antislavery, became a prominent Anglican minister, and published his pamphlet “Thoughts upon the African slave trade.” The pamphlet was sent to every MP.

Eventually the abolitionists generated enough pressure to ensure that the Privy Council started a hearing into the slave trade, but the slavers were a powerful lobby and managed to ensure that the first hearing was chaired by Lord Hawkesbury, who owned land in the West Indies. The hearings gathered lots of evidence and heard from the slave traders and owners how “nine out of 10 [slaves] rejoice at falling into our hands.” Clarkson scoured the country for more witnesses, and doctors who had worked on slave ships gave especially powerful stories. The Plymouth committee of the abolitionists found the famous picture of the *Brookes*, a slave ship showing how little room the slaves had on the slave ships (fig 3). The diagram began to appear everywhere in newspapers, books, and pamphlets; 7000 posters were printed and hung all around the country. Iconic images are very important to social movements.

Debates begin in parliament

On 12 May 1789 began what was to be a long series of debates in parliament on the slave trade. Wilberforce delivered what some think the greatest parliamentary speech ever. He spoke for three and a half hours, and Edmund Burke, himself a great speaker, said that the speech was “equal to anything . . . ever heard . . . in modern oratory; and perhaps . . . not excelled by anything to be met with in Demosthenes.” Wilberforce was polite, humble, and non-accusatory: “We ought,” he said, “all to plead guilty.”

But the abolitionists were outmanoeuvred by slave interests, who played for time and insisted that the House of Commons must have its own hearing into the slave trade.

Investigative journalism

So the abolitionists started on a “feverish collective editing marathon,” and the result was the 160 page abstract of *Evidence delivered before a select committee of the House of Commons in the years 1790 and 1791*, on the part of the petitioners for the abolition of the slave trade. It became the most widely read piece of non-fiction antislavery literature of all time, a masterpiece of force and clarity. It included statistics, documents, and sworn testimony by military officers, planters, sea captains, physicians, and businessmen and has been described as one of the first great works of investigative journalism.

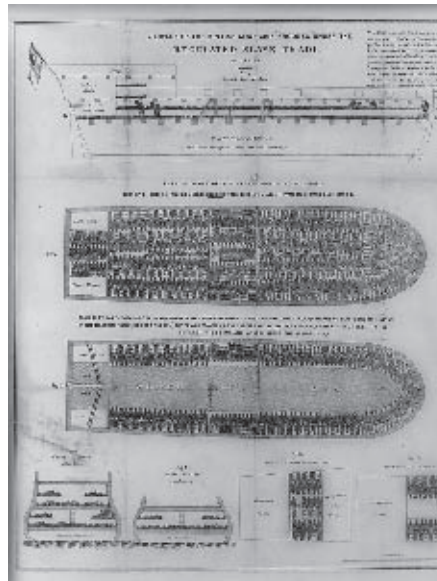


Fig 3 | The diagram of the slave ship *Brookes*

Next came a sugar boycott. Although the British loved sugar, half a million people joined the boycott. Sugar laid bare “the dramatic, direct connection between British daily life and that of slaves.” This was the first major boycott and allowed people who had no vote to express themselves politically.

There was another vote in the House of Commons in 1792, and by this time every town had an abolition movement that sent petitions and contributions and received books and pamphlets. The committees were run by clergymen, shopkeepers, merchants, skilled workers, and professionals. Parliament received petitions signed by 390 000 people, more people than could vote at that time. It received only four petitions favouring slavery. The debate on 2 April ran through the night. Henry Dundas, the home secretary who said he was in favour of abolition, proposed inserting the word “gradually” into the motion. The House of Commons voted in favour of the motion with “gradually” inserted, but the House of Lords talked out the bill.

A new leader and a breakthrough

Although they had a silver tongued parliamentarian, a moral steam engine, and a friend of the king as leaders, the abolitionists lacked a first rate thinker and strategist. But now James Stephen, a lawyer, writer, behind-the-scenes adviser, and conservative, became a leader in the cause. He had a visceral hate for slavery after living in the West Indies. To abolish slavery was the “central, driving passion of his life.” Stephen searched for a tool that could work and argued not for banning slave trading but for a bill that banned British subjects from participating in the slave trading of France and its allies. In the debate in parlia-

ment slave trading was barely mentioned, and Wilberforce didn’t speak. But it was impossible to argue against a bill stopping people supporting the country’s enemies. It was well understood by Stephen but unknown to most MPs that two thirds of the slave ships that sailed under the American (enemy) flag were actually British. The slave traders were split, and the bill passed.

In the parliamentary elections of 1806 slavery was a major issue, and in 1807 the bill to abolish slave trading in the British Empire was again debated. Military men were in favour because they had seen the horrors of slavery first hand, and powerful descriptions from an army doctor of atrocities he had seen were crucial in the debate. The bill passed, and on 25 March 1807 at noon was given royal assent.

The *Edinburgh Review* pointed out that the bill came not from the rulers but rather “the sense of the people has pressed abolition on our rulers.” This is what social movements can do.

The aftermath

Now that slave trading was abolished younger groups of abolitionists began to work for full emancipation, but progress was slow and there were splits in the movement. Eventually in the summer of 1833 after a three month debate an emancipation bill passed both houses. Wilberforce died three days after the bill was passed. This still wasn’t quite the end as slaves became “apprentices” working without pay for another six years.

Finally on 1 August 1838 nearly 800 000 black men, women, and children became free, and the occasion was marked in a Jamaican church with a coffin inscribed “Colonial Slavery, died July 31st 1838, aged 276 years.” The coffin contained an iron punishment collar, a whip, and chains.

Of the 12 men who met in the print shop in 1787 only Clarkson was alive.

Conclusion

The box shows some of the lessons that I have drawn from the inspiring story of the abolitionists, but the central lesson is that a small group of determined people can achieve what seems impossible. “Never doubt,” said the anthropologist Margaret Mead, “that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.” The British abolitionists show us that with the commitment, cunning, and tirelessness we can overcome seemingly intractable problems like climate disruption and global poverty.

Richard Smith editor of the *BMJ* until 2004 and director of the United Health Group’s chronic disease initiative richardswsmith@yahoo.co.uk

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