

Going too Far? Exploring the Limits of Smoking Regulations.

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It is customary in my home country of Australia at the opening of conferences to invite representatives of the original Aboriginal owners of the land to welcome delegates. A common way of doing this is to perform a “smoking ceremony” where eucalyptus leaves are burned. This causes clouds of smoke to billow throughout the auditorium. These ceremonies are also performed outdoors, the site of a new frontier in some nations of efforts to outlaw public smoking.

The smell of burning eucalyptus always transports me to my childhood, growing up in a small country town where I would often sleep around campfires with friends, returning home with my clothes and hair thick with the smell of smoke. I have since learned that these adventures exposed my lungs to large volumes of smoke particles, the great majority of which are indistinguishable to those contained in secondhand cigarette smoke. Because I do not subscribe to a worldview that automatically places risks to health, however small, above every other consideration, I do not believe that sitting around campfires, nor lighting them in suitable locations, should be banned as a health hazard.

Many will have visited cosy country restaurants and resorts where open log fires create an ambiance which transports us back to childhood memories of winter comforts and a somehow more authentic world. Well-flued fires see most smoke go up the chimney, but as anyone entering a room where a log fire has burned the night before knows, considerable smoke also escapes into the room, impregnating carpets and furniture.

I commence with these images because they provide salutary perspective on the debate about secondhand tobacco smoke (hereafter, SHS) and our focus in this symposium on whether policy and advocacy for the regulation of SHS might sometimes go “too far”. Many people are comforted by the smell of camp and log fires, even seeking out such exposures. But the same people will sometimes become outraged by the occasional, fleeting exposure to tobacco smoke. While nearly identical in terms of their noxious content(1, 2), both forms of smoke have entirely different *meanings*. If radically different concerns about inhaling essentially the same zoo of noxious particles was all that mattered here, we would have to conclude that many people can be frankly irrational. But outrage about some forms of smoke and open acceptance of others is very explicable to sociologists of risk perception. Among the many key determinants of meaning and outrage(3) are whether a noxious agent is seen as voluntary or coerced; natural or artificial; and whether the risk has been amplified by lots of media attention. We don’t read much about the dangers of inhaling campfire smoke, smoke from incense or candles or cooking, but we read a lot about the dangers of secondhand cigarette smoke(4).

“Going too far” connotes several undesirable features in policy. It can imply a questionable departure from the evidence base, a loss of proportionality, and the

abandonment of important ethical principles in the development of public health policy. To say that a policy is “going too far” is pejorative because the evidence, principles and proportionality that are sacrificed are important, fair-minded and above all, ethical. A careless attitude to matters of such importance can have repercussions that will be regretted and which do not stand up to close ethical audit.

Prohibitions on personal behaviours like public smoking can be justified by two related ethical principles: John Stuart Mill’s famous articulation of the right to interfere with the liberty of people to harm to others(5) and the commonweal justification(6) whereby the protection of the welfare rights of a large number of people sometimes requires the abrogation of the liberties of a smaller number of people, as occurs for example with requirements that non-immunised children stay away from school during infectious disease outbreaks.

Paternalism can be ethically justifiable when enacted in the interests of those incapable by virtue of legal immaturity or mental incapacity to act in their own interests. But paternalism “is most odious when used as a justification for limiting the choices that adults make”(6) when they only put themselves at risk. Occasionally, paternalism is justified via the argument that the infringement of liberty involved is very trivial and the gains to health are very great, as is the case with mandatory seat-belt use.

In debates about banning smoking outdoors, paternalistic arguments are often evident but rarely explicit. Health care facilities which ban smoking outdoors often justify their actions in terms of normative role-modelling. This is ethically unproblematic when it comes to staff who are contractually obligated to observe their employers’ policies. But it represents ethically muddled thinking when it comes to patients and visitors to public hospitals. These are not somehow “owned and controlled” by health authorities, so if they are not harming others by smoking outdoors, they ought not be coerced into signing up to the normative health promotion values of a hospital simply because they require hospital care or are visiting someone who does.

Almost all smokers regret having taken up smoking(7) and many gratefully support paternalistically motivated policies designed to discourage their smoking. But we do not evaluate the ethics of public health by the willingness of people to give up their autonomy, nor with the efficiency or success of commandments to obey laws or directives. Morality is always inexorably about respect for the autonomy of individuals to act freely, providing their actions do not harm others.

To me, “going too far” in SHS policy means efforts premised on reducing harm to others, which ban smoking in outdoor settings such as ships’ decks, parks, golf courses, beaches, outdoor parking lots, hospital gardens(8) and streets. It is also the introduction of misguided policies allowing employers to refuse to hire smokers, including those who obey proscriptions on smoking indoors while at work.

I emphasise that I am very supportive of preventing smoking in crowded, confined outdoor settings such as sports stadia, in most outdoor dining sections of (particularly small) restaurants and in unblocking the entrances to buildings by having smokers move further away. In outdoor stadia, the concentration of smokers and their sardine-can proximity to others can result in significant prolonged SHS exposure over many

hours. Moreover, a great many people find it unpleasant to sit beside a smoker for many hours, so I support banning smoking in stadia as a way of preventing a public nuisance, even before matters of health risk are considered. I apply the same reasoning to my support of not allowing smokers to colonise the high demand outdoor sections of restaurants. Policies meaningfully segregating smokers from others is a reasonable civil society response to the unpleasantness of being enveloped in SHS while eating outdoors.

Risks arise from chronic exposure

The evidence used to justify restricting smoking in public settings has always rested on a bedrock of studies concerning the relationship of chronic diseases like lung cancer, respiratory and cardiovascular disease to prolonged and repeated exposures in domestic and indoor occupational settings, generally over many years (although much less time with infants). Added to this, are studies which show that even brief exposures to SHS can produce measurable changes in coronary flow velocity(9-11) and distensibility of the aorta(12), to name just two. However, these studies of acute exposure, most recently reviewed by the US Surgeon General(13), typically define “brief” exposure to SHS as lasting between 15 to 30 minutes – considerably more than the typical encounter with SHS in a park, beach or street-- and were all conducted in indoor environments designed to replicate typical indoor exposure conditions. These effects are also considered to be partially reversible.(14)

Of course, potentially harmful chronic exposure consists of a multitude of acute exposures. These can range from the sort of “acute” heavy exposure that a bar worker would get throughout an 8 hour shift all the way through to the fleeting exposure lasting a second or so that one might get when walking past a smoker in a park. In an increasing number of nations, public policy has moved to outlaw all indoor occupational exposures, where the implication is that the exposure is both prolonged and involuntary. So the question we face today is whether it is reasonable to outlaw involuntary, fleeting outdoor exposure.

A recent paper by Klepeis and others(15) providing data on outdoor exposures in places like sidewalk café tables, pub patios and park benches has caused much excitement among supporters of outdoor smoking bans. The study reported what commonsense would predict: that SHS in outdoor settings is rapidly attenuated. However, it also concluded that in situations where there are multiple smokers, for those within half a meter of them “between 8 and 20 cigarettes smoked sequentially could cause an incremental 24-hour particle exposure greater than ... the 24-hour EPA health-based standard for fine particles.”

The authors refer to bar patios and outdoor café tables as where this might happen, but they also state that “sitting next to a smoker on a park bench” might occasion such exposure, despite one paragraph earlier stating that “multiple smokers” are required to get particle exposures to levels that challenge the EPA standard. “Multiple smokers” are rarely seated on park benches next to non-smokers for the time it would take to smoke 8-20 cigarettes. The paper says nothing about exposure to people on beaches, golf courses, relaxing on the grass in a park, or smoking in an outdoor car park. I would invite reflection on the number of occasions that anyone in any of these situations is *ever* involuntarily closer than half a meter to a group of smokers

consuming 8-20 cigarettes. Yet we are being asked to embrace policies premised on the idea that smoking in such settings poses a danger to others.

Is tobacco smoke any more toxic than smoke from other sources of burnt biomass?

As I stated earlier, while tobacco smoke has its own range of recognisable smells, there are few differences between the physics and chemistry of tobacco smoke and smoke generated by the incomplete combustion of any biomass, whether it be eucalyptus leaves, campfire logs, gasoline, or meat on a barbeque. Secondhand smoke is not so uniquely noxious that it justifies extraordinary controls of such stringency that zero tolerance outdoors is the only acceptable policy.

Many cities around the world ban coal and wood fuel fires and backyard incinerators in urban areas. These are deemed to be so anti-social in their contribution to urban air pollution that they are now often totally outlawed. Similarly, restaurants are required to meet expensive standards for the indoor ventilation of smoke caused by cooking. However, outdoor commercial cooking such as beer garden barbeques and fund-raising hot dog and steak sizzles of the sort run in every second shopping centre on Saturday mornings have so far not attracted any attention. Neither have park facilities for barbequing, for what I would suggest is the very obvious reason that the amounts of smoke involved are trivial.

While control of industrial and vehicle carbon emissions have attracted immense regulatory controls, there is universal willingness to trade off continuing emissions from industry and motor vehicles for the sake of the massive utility that both bring society. The benzene we all breathe from car exhaust is the same as the benzene in SHS. We hear many calls for car exhaust abatement and reduction but we hear no serious calls for the banning of cars, which continue to contribute tonnes of benzene to the atmosphere each year. So when it comes to restricting smoking as a public risk to others, a sense of proportionality would seem to have many precedents. Against such considerations, arguments for zero tolerance of *any* tobacco smoke in outdoor public settings requires interrogation of the assumptions and values driving such demands. In my experience, these are nakedly paternalistic, with heroic rearguard efforts being made to appropriate science in justification.

What problems would arise for public health policy if an absolute zero tolerance policy were adopted for secondhand smoke?

Outdoor smoking bans imply zero tolerance for exposure to SHS. In 2005, the WHO announced that it would no longer employ smokers in any capacity (not just in its tobacco control division). Presumably, it would not matter to the WHO if the world's most potent health workers in, for example, malaria, HIV/AIDS or the prevention of injury smoked: they would no longer be welcome inside the world's peak health agency. The WHO policy came under heated debate on an international tobacco control listserv. Several participants -- also advocates for outdoor smoking bans -- supported the WHO policy. They advanced a bizarre argument relevant to the debate on zero tolerance for SHS exposure.

They argued correctly that smokers, after smoking outdoors, returned indoors and “off-gassed” SHS smoke particles including volatile organics like benzene and styrene in their exhaled breath(16) and from their clothing. This, they argued, was a further consideration for why workplaces might justifiably refuse to employ smokers. However in 2007, Invernizzi et al showed that the mean time it took for a smoker to stop exhaling residual tobacco smoke particles after finishing a cigarette was 58.6 seconds, corresponding to about 9 subsequent breathings. The authors concluded that asking smokers to wait two minutes before returning indoors after smoking would eliminate measurable particle dispersal from their breath(17). No one has yet bothered to quantify the amount of smoke particle shedding that smokers emit from their hair and clothing but the levels would be almost homeopathic.

Those who were animated about the need to stop smokers “polluting” workplaces like this, were in effect so intolerant of smokers, that they argued if we can smell smoke on their breath or clothes, that they should be denied employment in indoor occupations. The *reductio ad absurdum* of such a position would involve truly frightening policy obligations. We should not also allow smokers to attend cinemas or theatres, travel on public transport, stand in queues, attend sporting matches, or perhaps even walk past us in the street because some non-smokers might find the experience of being near them intolerable.

We might also require employees to declare that they will no longer associate with smokers, because they might then come to work with trace levels of smoke in their clothing. Perhaps WHO employees should be asked to divorce their smoking spouses, agree to send their smoking children to approved smoking cessation programs and agree to not associate with smokers because these people might cause their parents to turn up to work at WHO smelling of smoke.

It is instructive to consider another common behaviour that holds implications for the health of others. Many people are allergic to the fine hair continually shed by pets such as dogs and cats. For example, in the USA, 17% of the population are allergic to cats(18). A European study concluded that people with cat allergy who do not own cats “may be exposed to high levels of cat allergen ... if they live in communities with high levels of cat ownership”. (19)

People with cat allergies quickly learn to not own cats or pat them, and will often avoid going into the houses of people who own cats because of the profusion of dander in such locations. But given that exposure to cats is higher in communities where cats are prevalent and that clothing and hair are key vehicles for exposing the allergens to those allergic to the sebaceous secretions of cats(20), by the same logic that seeks to protect non-smokers from SHS, why should we not also forbid cat ownership, or force cat owners to shower and have a complete change of clothing before entering any public space?

Supporters of the WHO policy also argue correctly that smokefree workplaces can act as incentives to cessation(21). This paternalism in wanting to stop smokers from harming themselves is presumably benevolently motivated: it is for smokers' own good. Let us therefore assume that such benevolence extends to all avoidable causes of death, not just those caused by smoking (because if this was not the case, the WHO

policy advocates would be nothing but single-issue moralists who cared about a cancer death from smoking, but not a cancer death from, say, sun exposure).

On the basis of this assumption, should we encourage the WHO to also refuse to hire tanned Caucasians (for sending the wrong message about skin cancer risk); people who rode motorcycles (hugely risky as attested by insurance premiums); anyone who chose to participate in extreme sports (eg: mountaineering, lone ocean sailing, base jumping where again the risks are immense); anyone who was overweight or obese; anyone who made a virtue out of not exercising; anyone who drank excessively after hours? The list could go on.

Psychogenic explanations of claimed harms from low-level SHS exposures?

Advocates for smokefree outdoor areas include those who passionately attest to being severely affected by even the smallest exposure to SHS. A compassionate attitude to such claims would be to uncritically accept them at face value and to not subject them to any scientific scrutiny. But if public health policy is to be evidence based, such claims need to be subjected to scientific assessment. Here, such individuals may have much in common with those who suffer from what was formerly known as multiple chemical sensitivity (MCS), now known as Idiopathic Environmental Intolerance (IEI). A systematic review of research into chemical provocation studies conducted with people suffering from MCS, concluded that the “mechanism of action is not specific to the chemical itself and might be related to expectations and prior beliefs”(22). Three studies for example, used olfactory masking agents to conceal stimuli, and none of these found associations between provocations and response.

Two recent reviews examined the evidence for both the toxicogenic hypothesis(23) (ie: that susceptibility or intolerance of low levels of any environmental agent such as SHS explains multi-system symptoms either through toxicodynamic pathways or by sensitising neural pathways) and the psychogenic hypothesis (that IEI is a culturally learned phenomenon characterised by an overvalued idea of toxic harm explained by psychological, psychosocial and psychophysiological processes (24). The reviews concluded that none of the Bradford-Hill criteria for causation were satisfied by the toxicogenic theory, but that all of the criteria were met for the psychogenic theory.

There are many dimensions of antipathy to public smoking. Some are affronted by the mere sight of smoking (although JS Mill was emphatic that “mere offence” did not count as harm). Others have an evangelical mission to use “tough love” to help others to reduce and quit. Communities often introduce standards on the conduct of citizens which relate to reducing nuisance and improving amenity, regardless of whether these issues impact on health. Neighbourhood building (aesthetic) approvals, dress codes, and noise rules are three broad examples. These standards reflect values that differ between communities, but do not seek refuge in claims about health. Public health research is debased when it lends bogus credibility to what are essentially matters of community preference. If local governments wish to stop people smoking on beaches because of the intractable butt littering that occurs, they should frame their actions in terms of litter reduction, not public health. If landlords want to prevent smokers from renting apartments because of the likelihood of complaints about smoke drift from other residents, they should be at liberty to do so, but need not invoke public health justifications in the process.

My final concern about the current excesses in secondhand smoke policy is that we risk undermining the much needed case for smokefree indoor policies in most parts of the world where smoking remains a normal, unremarkable and unregulated activity. Health workers in those nations are today desperate to convince governments of how reasonable it should be to remove involuntary exposure from SHS in occupational and indoor public settings. They marshal evidence about disease caused by long-term exposure and staunchly defend the credibility of that evidence from the predations of the tobacco and hospitality industries(25), intent on exposing those risks as trivial.

Opponents of clean indoor air will be able to point to dubious “endgame” advocacy in nations which have successfully introduced indoor smoking bans, and invoke slippery slope precedents that advocates actually want to ban smoking “everywhere”. This may unfairly brand tobacco control advocates as clandestine extremists with agendas which abandon all proportionality in the formulation of policy. Such views are likely to undermine the credibility of advocacy for evidence-based policies(26) to the great detriment of perhaps hundreds of millions of citizens.

The 2006 US Surgeon General’s report on involuntary exposure to tobacco smoke(13) made no recommendations and reviewed no evidence in its 709 pages on the dangers of outdoor exposure or the public health importance of controlling it. There should be a lesson in this for all of us.

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