Legislating abjection? Secondhand smoke, tobacco control policy and the public's health

Kirsten Bell

This is an Author's Accepted Manuscript of an article published in *Critical Public Health* [copyright Taylor & Francis], 2011, volume 21 issue 1, pages 49-62., available online at: http://www.tandfonline.com/ [DOI: 10.1080/09581596.2010.529419].

Abstract

Since the mid-1990s the position that 'no amount of secondhand smoke is safe' has achieved hegemonic status in the field of public health. This has bolstered efforts in the tobacco control community to advocate for smoke-free legislation and a variety of countries around the world have implemented indoor smoking bans, with many others presently following suit. Increasingly, tobacco control advocates and nonsmokers' rights groups have also successfully lobbied to extend the reach of smoke-free legislation into outdoor places and private spaces such as apartment buildings and cars. Yet, despite the absolute tone of public health messaging on secondhand smoke, a body of research suggests that evidence on the health effects of environmental tobacco smoke is overstated. This paper examines why secondhand smoke has been such a central focus in tobacco control and public health policy, despite the limitations of the available evidence base on its health impacts. I argue that public health responses to secondhand smoke can only be understood in relation to the liminal and transitive qualities of cigarette smoke and its capacity to dissolve the boundaries between bodies. My key goal is to illustrate the influence of cultural assessments about the nature of 'risk' on epidemiological standards of evidence. I contend that the subjectively experienced abjectness of cigarette smoke far more than the 'objectively' demonstrable harms to health it causes ultimately explain both popular and public health responses to the substance.

Introduction

Since the 1990s, tobacco control policy has been characterised by an overwhelming focus on the dangers of secondhand smoke and the need to protect the public from this health 'risk'. Smoke-free legislation has been implemented in an unprecedented number of countries (e.g., Scotland, England, Norway, New Zealand, Ireland, Northern Ireland), and provinces and states across the USA, Canada and Australia have also enacted comprehensive indoor smoking bans in public places. Even countries historically considered to be highly resistant to such legislation (e.g. France) have recently begun to follow suit.

The widespread implementation of indoor smoking bans has been followed by growing calls to enact outdoor smoking bans in public places (e.g. Bloch and Shopland 2000; Repace 2000; Walsh *et al.* 2008; Thomson *et al.* 2008). For example, at the time of writing, smoking bans have been proposed for Vancouver beaches and the neighbouring city of White Rock has already enacted a smoking ban at any outdoor gathering place, including parks, sports fields, playgrounds, beaches, etc (City of Whiterock 2008). Other

initiatives of note include efforts to ban smoking in quasi-private spaces such as cars carrying children (Canadian Press 2007; Vergakis 2006; The Age 2007) and apartment buildings (Kline 2000; CACBC 2008).

Such moves speak to the extraordinary transformation in public health and popular attitudes towards smoking over the past two decades, which has been recast from a socially acceptable practice into an intrinsically dangerous, irresponsible and selfish one. Key to the present vilification of smoking is the assumption that smokers harm not only themselves but also *put others at risk* via the polluting and dangerous secondhand smoke they expel from their bodies.

In this paper I am interested in exploring the cultural context of secondhand smoke as a public health issue. However, this is a task that has become increasingly delicate in the politically charged environment of tobacco research, where examinations that de-centre the 'truth' of scientific scholarship on secondhand smoke are immediately open to attack from the tobacco control community. As Sullum (1998, p. xiii) notes, 'anti-smoking activists and their allies have portrayed criticism of the case against secondhand smoke as a tobacco industry plot', and it is common practice to insinuate that researchers and observers critical of the science on secondhand smoke have financial ties with the tobacco industry.

As Mair and Kierans (2007) have highlighted, tobacco research is increasingly defined by a commitment to the goals of tobacco control. 'Legitimate' tobacco research explicitly aims to reduce the burden of tobacco-related disease and is defined in contrast to industry research aimed at promoting tobacco use. In this moralised framing there can be no interested observers and the mainstream view appears to be that 'if you're not with us, you're against us'. This growing polarity in tobacco scholarship is, in some ways, comparable to that which Gard (this series) describes in the field of obesity research, which is organised around the opposition between two broad camps: 'obesity alarmists' and 'obesity sceptics'. However, the polarity is even more pronounced in the case of tobacco research insofar as *any* research critical of tobacco control policies is often dismissed by public health officials and non-smokers' rights groups¹ as parroting the views of the tobacco industry.²

In this paper I do not intend to draw any conclusions about the 'truth' regarding secondhand smoke. Rather, I am interested in examining this 'issue' as a discursive formation (Foucault 1970): in particular, why secondhand smoke, also known as 'environmental tobacco smoke', 'passive smoking' and 'involuntary smoking', has become such a central focus in tobacco control and public health policy. I consider contemporary developments in tobacco control policy in relation to the available evidence base regarding the health impacts of secondhand smoke and its distinctive semiotic properties. My key goal is to demonstrate that the subjectively experienced abjectness of cigarette smoke far more than the 'objectively' demonstrable harms to health it causes ultimately explain both popular and public health responses to the substance.

The rise of secondhand smoke as a public health issue

While the late twentieth and early twenty-first century can be characterised by an extreme preoccupation with secondhand smoke, objections to such smoke are longstanding and first appeared in tandem with the emergence of widespread tobacco use in Europe in the late sixteenth century. For example, in 1604, King James VI of Scotland wrote an antismoking pamphlet, *A Counterblaste to Tobacco*, in which he attacked both tobacco use and secondhand smoke, noting:

And for the vanities committed in this filthy custom, is it not both great vanity and uncleanness that at the table, a place of respect, of cleanliness, of modesty men should not be ashamed to sit tossing of tobacco pipes and puffing of the smoke of tobacco one to another making the *filthy smoke and stink thereof to exhale athwart the dishes and infect the air* when very often men that abhor it are at their repast (emphasis added).

Annoyance about exposure to tobacco smoke was also significant element in the antismoking movement of the nineteenth century (Sullum 1998). For example, an image from 1886 titled 'The smoke nuisance' shows a man smoking in a train carriage and subjecting its occupants to copious fumes (see figure 1). A man is depicted opening a window and a little boy cries plaintively 'Mama! I am so sick'. The mother is holding a handkerchief and says 'Oh! What a horrible smell'.



Figure 1. 1886 engraving on secondhand smoke (image available from National Library of Medicine - no copyright restrictions)

Interesting are connections made even in this early period between smoke, sickness and contamination. Such connections were made even more explicitly in 1911 when Charles Pease argued that 'The right of each person to breathe and enjoy fresh and pure air—air uncontaminated by unhealthful or disagreeable odours and fumes—is a constitutional right, and cannot be taken away by legislatures and courts, much less by individuals pursuing their own thoughtless or selfish indulgence' (in Sullum 1998, p. 33, emphasis added).

Although these arguments prefigure contemporary assertions of non-smokers' rights, it was not until the 1970s that the secondhand smoke 'issue' emerged as a central platform

of the anti-tobacco lobby (Sullum 1998; Berridge 1999). However, this shift in focus proved highly successful as it allowed the anti-smoking lobby to further its agenda whilst sidestepping accusations of paternalism (Bayer and Colgrove 2002; Kagan and Vogel 1993). As Kagan and Vogel (1993, p. 39) note,

Although the activists' underlying goals may be paternalistic—to induce inconvenienced smokers to quit, to delegitimate smoking and thereby discourage smokers and potential smokers—their arguments could now take a classically libertarian form: 'your freedom to choose to smoke ends where my airspace, and my right to breathe unhazardous air, begins.'

This allowed tobacco control advocates to push for changes that would have been politically unpalatable if they had been pursued directly (Bayer and Colgrove 2002, p. 953).

Such efforts to lobby for the regulation of smoking occurred within a context of scientific uncertainty about the nature of the harms of secondhand exposure to tobacco smoke (Zimring 1993; Sullum 1998; Brandt 1998; Berridge 1999; Bayer and Colgrove 2002). Examinations of the historical context of tobacco control policies in the United Kingdom (Berridge 1999), the USA (Sullum 1998) and Canada (Asbridge 2004) have shown that moves to restrict smoking were based less on scientific research than the issue of non-smokers' rights and the pressure placed on local municipalities by advocacy groups. However, the medical legitimacy provided by research findings about the health impacts of secondhand smoke allowed tobacco control advocates to redefine passive smoking from a moral and rights-based issue into a medical and scientific one – although 'this was a scientific issue where self-regulation and individual morality were still central' (Berridge 1999, p. 1192).

The science of secondhand smoke: Standards of evidence and public health action

As Gusfield (1981: 3) has noted in relation to drink driving, "objective" conditions are seldom so compelling and so clear in their form that they spontaneously generate a "true" consciousness'. Similarly, the rise of secondhand smoke as a public health 'problem' cannot be understood as a natural consequence of the 'objective' dangers it poses (Jackson 1994; Berridge 1999; Sullum 1998). Unlike the research on smoking and lung cancer, studies on the health impacts of secondhand smoke were not prompted by unexplained increases in disease (Gostin 1997; Sullum 1998). Rather, the construction of passive smoking as a health issue required that epidemiology infiltrate the spaces and connections between the visible body of the smoker and the invisible body of the passive smoker (Jackson 1994). Although these links are understood to have been rendered progressively more visible by technical developments and increasing medical insight, Jackson (1994) convincingly demonstrates the ways these links were actively produced by a particular logic.

Central to the scientific literature on secondhand smoke is a preoccupation with the constituents of the smoke itself: cigarette smoke was quickly reduced to its chemical components (e.g. carbon monoxide, tar, ammonia, benzene, etc), which were then classified in relation to their likely impact on health (Jackson 1994). However, while medical science could measure the carbon monoxide concentration of cigarette smoke, it

was ill equipped to conceptualise the risk of exposure to such substances by the disease-free, and therefore *invisible*, passive smoker (Jackson 1994, p. 434).

As Jackson notes, scientific precision disappears when the actual effects of this smoke are discussed. Thus, a 1986 article by Peto and Doll states: 'it is *generally* accepted that safe thresholds are *unlikely* to exist for most carcinogens... exposure to ambient smoke must be *assumed* to cause lung cancer in non-smokers' (cited in Jackson 1994, p. 436; emphasis in original). In light of these intrinsic uncertainties, Jackson points to the critical role played by biomarkers, particularly cotinine, in legitimising the links between the visible smoker and the invisible passive smoker. Although cotinine is a metabolite of nicotine, which is not in itself carcinogenic, its importance resides in its presumed indexical relationship with other less visible constituents. 'These remain hidden in the human body and yet can be revealed by way of discursive associations' (Jackson 1994, p. 439).

Although a considerable amount of research has been conducted into the toxicology of secondhand tobacco smoke since the publication of Jackson's paper, his basic observations remain pertinent. Thus, when considering the mechanisms through which secondhand smoke leads to health impacts, the latest Surgeon General's report (USDHHS 2006) notes, 'the mechanisms by which secondhand smoke causes lung cancer are *probably similar* to those observed in smokers' (USDHHS 2006, p. 46). Yet, despite ongoing uncertainty about the exact mechanisms through which secondhand smoke leads to disease, over the last thirty years the wording of the Surgeon General's reports has become strikingly absolute in tone. For example, the 1972 Surgeon's General's report concluded that: 'the effect of exposure to carbon monoxide may on occasion, depending upon the length of exposure, be sufficient to be harmful to the health of an exposed person' (USDHHS 1972, p. 7). Contrast this with the wording of the 2006 report, which concludes:

Exposure of adults to secondhand smoke has *immediate* adverse effects on the cardiovascular system and *causes* coronary heart disease and lung cancer... The scientific evidence indicates that there is *no risk-free level of exposure* to secondhand smoke (USDHHS 2006, p. 9, emphasis added).

So what exactly are the established risks of secondhand smoke exposure? According to the 2006 Surgeon General's report (USDHHS 2006), the pooled evidence indicates a 20 to 30 percent increase in the risk of lung cancer and a 25 to 30 percent increase in the risk of coronary heart disease associated with living with a smoker (USDHHS 2006, p. 15). The relative risk is therefore between 1.20-1.30 in the majority of studies (USDHHS 2006) – a reasonably weak relationship in epidemiological terms. Moreover, as Gostin (1997) points out, the Surgeon General's more recent scientific conclusions regarding the causal link between secondhand smoke and disease lack the rigour of earlier reports, failing to clearly state the conditions required in order for significant health risks to occur. As Gostin asks: 'At what level of exposure does the risk occur? How serious a risk exists compared with other environmental risks, such as automobile emissions? What kinds of involuntary smoking or what settings pose the risks?' (p. 347).

The conclusions drawn by the Surgeon General also pose a considerable contrast to those regarding other identified health hazards with similarly established levels of risk. For example, over the past twenty years, there has been considerable debate in the epidemiological literature about the relationship between alcohol use in women and breast cancer risk (e.g., Steinberg and Goodwin 1991; Ellison *et al.* 2001; Nagata *et al.* 2007). Early reviews of the alcohol-breast cancer link were highly equivocal, failing to find support for a clear causal relationship between alcohol and breast cancer based on the low relative risks found and the high percentage of studies that failed to find evidence of a significant effect (e.g., Steinberg and Goodwin 1991).

More recent reviews have been slightly less tentative in their conclusions. Thus, Key *et al.* (2006), in a meta-analysis of 98 studies, found an excess risk associated with alcohol drinking of 22%, with each additional 10 g ethanol/day associated with a 10% increase in risk. They conclude:

Taking account of shortcomings in the study base and methodological concerns, we confirm the alcohol-breast cancer association. We compared our results to those of an individual patient data analysis, with similar findings. We conclude that the association between alcohol and breast cancer may be causal (p. 759, emphasis added).

Boyle and Boffetta (2009) take a stronger stance on the causality of the link between alcohol and breast cancer but still acknowledge the risk to be 'quite small', with a 'gradient of increasing risk of breast cancer associated with increasing levels of alcohol consumption' (p. S5). Bearing in mind the similar relative cancer risks that alcohol consumption and secondhand smoke exposure entail, and the dose-response relationship evident in each case, the Surgeon General's conclusion that there is 'no risk-free level' of secondhand smoke exposure seems strikingly intemperate in comparison.

The radically different assessment of risk levels that are 'objectively' similar bears out Brandt's (1998) point that thresholds for public regulation and intervention are sociopolitical phenomena. As he notes:

They vary not only by the ability of epidemiology to specify a given risk, at a given level, but rather by the cultural process of how a given risk is publicly perceived and understood. Where and how is the risk generated? Are there reasons for tolerating a particular risk, or not? Who is responsible for generating the risk and what is their social status? What are the available mechanisms for regulation and enforcement? Finally, who is at risk? Are they actors in the risk, or are they passive victims? Are they innocent? (p. 171).

Thus, while alcohol use and exposure to tobacco smoke may carry similar cancer 'risks', one risk is seen to result from voluntary exposure and the other from involuntary exposure. Most importantly, the 'victims' of secondhand smoke are 'innocents' – adorable infants and children are a staple of smoke-free campaign imagery (see figure 2).



Figure 2. Tobacco prevention poster (Reprinted with the permission of State of Health)

It was the identification of harms to 'innocent victims', primarily children and women, which cemented the validity of the secondhand smoke issue (Kagan and Vogel 1993; Brandt 1998; Berridge 1999; Bayer and Colgrove 2002). As Brandt (1998, p. 170) asks: 'How persuasive did the data on passive smoking need to be, when the harms that were identified were typically inflicted on 'non-consenting' women and children?'

Thus, despite the limitations of the available evidence base beyond the context of intensive, long-term exposure, the position that 'no amount of secondhand smoke is safe' has achieved hegemonic status in the field of public health (see USDHHS 2006). For example, a poster from the US Centres for Disease Control and Prevention (CDC) informs the public of the dangers of 'sitting in a 'no smoking' section, even if it doesn't smell smoky' and 'being in a house where people are smoking, even if you're in another room' (figure 3). In this framework, all exposures are treated as equivalent: secondhand smoke 'hurts you. It doesn't take much. It doesn't take long'. It is therefore unsurprising that outdoor smoking bans are gaining traction, despite the fact that the established risks associated with such exposure are virtually non-existent (Chapman 2000, 2008).

Invasion and the dissipation of bodily boundaries

Tobacco smoke itself forms a prominent and fetishised visual feature of tobacco control imagery. The fetishistic nature of secondhand smoke is particularly evident in figure 4, a poster from State of Health, an organisation that creates tobacco prevention and other health promotion materials aimed primarily at school children. Despite the more lurid B-movie imagery of the second poster, the message in both is virtually identical: secondhand smoke is an uncontainable, invasive 'killer'.

As Dennis (2006) has previously noted,⁵ the frame of invasion is integral to depictions of smoking in tobacco control campaigns: cigarette smoke refuses to be contained. In anthropological terms, cigarette smoke is a liminal substance (Turner 1967): powerful 'matter out of place' (Douglas 1996[1966]; see also Manderson 1995). It is precisely

these qualities that made tobacco smoke a central component of religious rituals amongst both North and South American Indians, who esteemed it for its sacred, protective and purificatory powers (see Wilbert 1987; Winter 2000). Moreover, as Klein (1993) and Dennis (2006 and this series) have argued, such transgressive qualities are also intimately connected with the contemporary pleasures of smoking.

Although smoke is intrinsically transitive, a distinctive feature of cigarette smoke is its connection with the human body. Chapman (2000, 2008) has observed the very different reactions cigarette smoke and smoky campfires or barbeques evoke, despite the similar range and volume of carcinogenic particulates and gases both expel. He attributes this to the perceived romance of the smoky campfire in contrast to the perception of secondhand smoke as a 'quintessential imposed risk' linked with the possibility of feared outcomes such as lung cancer (2000, p. 95). However, in my view the most fundamental difference between assessments of these two types of smoke is that one is connected with organic matter and the other is connected with *the human body*. As Brandt (1998, p. 168) notes, the term 'secondhand smoke' itself contains the ominous implication that someone else has used it first.



Figure 3. CDC secondhand smoke poster (Reprinted with the permission of the CDC)



Figure 4. Tobacco prevention poster (Reprinted with the permission of State of Health)

Few scholars have explicitly attempted to theorise these dimensions of cigarette smoke, although notable exceptions include the work of Poland (2000) and Dennis (2006). Poland (2000) argues that contemporary reactions to secondhand smoke need to be contextualised in relation to the growing importance of etiquette and bodily control to middle class sensibilities since the eighteenth century. He argues that increasing individualisation has heightened awareness of personal space and violations of such space. He writes:

Environmental tobacco smoke invades the most intimate reaches of the body of physically copresent non-smokers, allowing for the violation of personal space by others at a physical distance in indoor environments. The social class dynamics underlying these 'sensibilities', as well as the social class distribution of smoking, sheds new light on why regulations on smoking have been most swiftly applied to environments with a preponderance of middle and upper classes (Poland 2000, p. 8).

Using a phenomenological lens, Dennis (2006) similarly notes that cigarette smoke makes connections between bodies. While some of these connections may be desirable – such as with the post-coital cigarettes enjoyed by two lovers,⁷ other connections may be highly undesirable and unwanted. As Dennis (2006) argues, by making connections between bodies, cigarette smoke dissolves the boundaries between them. 'The smoke that goes in is not the same as the smoke that comes out; tasting smoke makes the smoke part of us, and makes us part of smoke' (p. 48).

Thus, while cigarette smoke crosses boundaries in general, I would argue that it is the dissolution of *bodily boundaries* in particular that make it so uniquely positioned within contemporary public health discourse. As Mary Douglas has famously noted: 'all margins are dangerous... Matter issuing from them is marginal stuff of the most obvious kind. Spittle, blood, milk, urine, faeces or tears by simply issuing forth have traversed the boundary of the body' (Douglas 1996, p. 122). So, too, has secondhand smoke. In the language of Julia Kristeva (1982), secondhand smoke is abject: an in-between, ambiguous, composite substance that destroys the boundaries between what is 'me' and what is 'not me'. As Kristeva (1982, p. 4; emphasis added) writes, 'It is thus *not lack of cleanliness or health* that causes abjection but what disturbs identity, system, order. What does not respect borders, positions.'

The abject nature of cigarette smoke is starkly highlighted in the language of disgust that non-smokers and ex-smokers (and occasionally smokers themselves) use to describe it. For example, Ann, a middle-aged general physician interviewed as part of my research into smokers' and GPs' interactions about smoking, stated in no uncertain terms: 'I think it's *disgusting*. I *hate* the smell of it'. Ex-smokers were often equally damning. Jackie, a woman in her twenties, described her newly acquired repugnance of cigarette smoke using similarly strong words: 'especially after you quit it smells *disgusting*'. As an emotion, disgust tends to embody ideas about contamination (Nussbaum 2004), with its attendant imagery of borders under attack.

As these accounts suggest, central to the abject, contaminating qualities of secondhand smoke is its smell. Although such smoke is also signified visually, its most powerful

referent is olfactory: smoke is often smelled long before it is seen and long after the smoke itself (and the cigarette that produced it) has been extinguished. It is smoke's 'tell tale' trace. Jack, a retired GP, described the ways in which the smell of smoke made it impossible for the smokers amongst his patients to hide their smoking status from him: 'when someone comes in and they smoke, I mean, not only do they look like they smoke but you can smell smoke on them'.

Marks (2002) argues that smell is the most mimetic of the senses: it acts on our bodies before we are conscious of it. Moreover, we cannot actively avoid smells or guard ourselves from the bodily invasion they entail. As Le Guérer (1991, p. 175) notes:

The smell that enters the lungs establishes a contact "even more intimate" that the one between taste and the receptor cavities of mouth and throat. Furthermore, unlike oral absorption, which is a deliberate act, olfactory perception is almost always involuntary. A smell is unavoidable, for it cannot be either voided or avoided through a rejective process like vomiting.

Thus, it is the smell of secondhand smoke as well as the visible signs that accompany it that are integral to present assessments of the health risks it poses. Indeed, it is precisely the mimetic, embodied effects of smoke's odour that appear to be driving recent research into the health impacts of 'thirdhand smoke': residual tobacco smoke 'contamination' (see Winickoff *et al.* 2009).

These embodied effects are also central to the ready acceptance of the science of secondhand smoke amongst the public. For example, Malone, Boyd and Bero (2002), in their analysis of newspaper coverage of passive smoking, have found that 'evidence' regarding the harmfulness of secondhand smoke tended to appeal to phenomenological arguments over scientific evidence. Thus, smelly clothes and watery eyes were used as experiential evidence to support scientific claims. As the authors note: 'In the end, the science of passive smoking was used to confirm what "everyone" already *knew through everyday experience*, and to establish socially legitimated "facts" that provided official justification for subsequent action' (Malone, Boyd & Bero 2000: 719, emphasis added).

I would suggest that the mimetic, affective and abject qualities of secondhand smoke have helped to naturalise and disguise the symbolically constructed nature of the association between smoke and disease, and its 'dangerous' and 'unhealthy' qualities have now become self-evident. This explains why in the space of less than two decades, social and legal attitudes towards secondhand smoke have been so fundamentally transformed: the powerful mimetic and embodied response secondhand smoke produces has been successfully harnessed by the anti-tobacco lobby for instrumental purposes. To paraphrase Marks (2002),¹⁰ in this framework the experiential aspects of secondhand smoke have been co-opted in service of a socio-political movement.

Conclusion

Clearly, the science of secondhand smoke cannot be divorced from the cultural context central to its emergence as a public health issue. Whilst objections to secondhand smoke are longstanding, it is only in the past two decades that it has been singled out for uniform attack as a dangerous and polluting substance. On the basis of the relatively minor

established health risks secondhand smoke exposure poses – risks that are most concrete in the context of long-term and intensive exposure – strikingly absolute legislation has been enacted to remove all traces of secondhand smoke from indoor public places and, increasingly, outdoor public spaces as well.

I have tried to demonstrate that public health responses to secondhand smoke cannot be divorced from the abject and mimetic effects of this smoke. Smoke dissipates bodily boundaries and undermines the separation between self and other in ways highly problematic in the context of late industrial capitalist life. Its powerful mimetic effects disguise the highly artificial medicalised meanings secondhand smoke has come to hold over the past twenty-five years. Thus, the intrinsic 'risk' it poses, regardless of intensity of exposure, has become apparently self-evident: a cultural and medical 'fact' requiring little explication.

Notes

- ¹ Although anti-smoking organizations and public health agencies are not synonymous, there is a close connection between them. For example, most of the members of the Framework Convention Alliance (FCA), the organisation responsible for implementing the WHO Framework Convention on Tobacco Control treaty, are anti-smoking organizations and the head office of FCA is the US branch of ASH (Action on Smoking and Health) a strident non-smokers' rights organisation.
- ² For example, following the publication of a recent paper of mine critical of tobacco denormalization policies and their impact on smokers (Bell *et al.* 2010), the Canadian Non-Smokers Rights Association immediately responded by calling the research 'shoddy' and accused it of 'parrot[ing] the tobacco industry's attempt to portray antismoking efforts as an attack on individuals' (see Blackwell 2010).
- ³ As Brandt (1998) has noted, each of these terms has particular social and political implications. For example, 'involuntary' smoking emphasises the 'voluntary' and intentional nature of smoking, while 'environmental tobacco smoke' invites public concern about smoking as an environmental hazard. According to Brandt (1998, p. 168), 'each of these terms had alternate and reinforcing qualities in spurring this second antitobacco revolution'. I have chosen to use the term 'secondhand smoke' because this is the one most commonly used by the public health agencies I examine in this paper. As I go on to discuss, this term emphasizes the 'used' nature of this smoke, which I believe is central to its contemporary status as physically and symbolically defiling.
- ⁴ It is worth noting that the documented risks of active smoking exponentially outweigh the risks associated with passive smoking (USDHHS 2006). The relative risks associated with long-term, heavy smoking are between 12.7 and 23.3 an 1100 to 2200% increase in risk (ACS 2008). Tobacco control campaigns on secondhand smoke have worked so well there is some evidence that the public now overestimate the risks of secondhand smoke exposure in relation to active smoking (e.g., Halpern-Felsher and Rubinstein 2005). The iatrogenic consequences (Castel 1991) of such overestimates have been little explored.
- ⁵ Dennis (2006) primarily focuses on the frame of internal invasion depicted in tobacco prevention images of the internal organs of the body being encompassed and ultimately

- destroyed by tobacco. However, the frame of external invasion is equally integral to tobacco control campaigns connected with secondhand smoke.
- ⁶ Although a distinction is made between mainstream smoke (smoke exhaled by the smoker) and sidestream smoke (smoke directly from the cigarette itself), and sidestream stroke is the more toxic of the two (USDHHS 2006), as the term 'secondhand' smoke itself suggests, it is the smoke exhaled by the smoker that is the primary focus of attention.
- ⁷ The desirability of such smoky connections may help to explain the high degree of resistance to smoking bans in bars and nightclubs (vs. offices and restaurants) venues where connections between bodies are actively sought out.
- ⁸ This research examined the impact of social denormalisation strategies on interactions between smokers and GPs about smoking. Twenty-five smokers and ten GPs were interviewed between 2008-2009. The study was funded by the Canadian Institutes of Health Research.
- ⁹ Although the abjectness of such smoke was de-emphasised in mainstream discourse on smoking for much of the twentieth century (perhaps because smells, despite their liminal qualities, are habituating), it is certainly present in anti-smoking propaganda throughout history, with its focus on 'filthy' and 'contaminating' fumes.
- ¹⁰ Marks (2002) is referring to the commercial applications of smell as a marketing tool, despite its affective and mimetic qualities.

References

- ACS, 2008. Smoking and Cancer Mortality Table, American Cancer Society. Online.

 Available from:

 http://www.cancer.org/docroot/PED/content/PED 10 2X Smoking and Cancer

 Mortality Table.asp [Accessed 15 June 2009].
- The Age, 2007. Smoking ban for cars in force in SA, *The Age Online*. Available from: http://www.theage.com.au/news/National/Smoking-ban-for-cars-in-force-in-SA/2007/05/31/1180205402770.html [Accessed 23 July 2008].
- Asbridge, M., 2004. 'Public place restrictions on smoking in Canada: assessing the role of state, media, science and public health advocacy', *Social Science & Medicine*, 58: 13-24.
- Bayer, R. and Colgrove, J. (2004) Science, politics, and ideology in the campaign against environmental tobacco smoke. *American Journal of Public Health*, 92(6), 949-954.
- Bell, K., *et al.*, 2010. Smoking, stigma and tobacco 'denormalization': Further reflections on the use of stigma as a public health tool. *Social Science & Medicine*, 70, 795-799.
- Berridge, V., 1999. Passive smoking and its pre-history in Britain: policy speaks to science? *Social Science & Medicine*, 49, 1183-1195.
- Blackwell, T., 2010. 'Shaming' smokers makes it harder to quit: study. *National Post*. Available from: http://www.nationalpost.com/news/canada/story.html?id=2417574 [Accessed 4 April 2010].
- Bloch, M. and Shopland, D., 2000. Outdoor smoking bans: more than meets the eye. *Tobacco Control*, 9, 99.

- Borthwick, F., 2000. Olfaction and taste: Invasive odours and disappearing objects. *The Australian Journal of Anthropology*, 11, 127-140.
- Boyle, P. and Boffetta, P., 2009. Alcohol consumption and breast cancer risk. *Breast Cancer Research*, 11 (Suppl 3), S3-S6.
- Brandt, A.M., 1998. Blow some my way: passive smoking, risk and American culture. *In:* S. Lock, L.A. Reynolds and E.M. Tansey, eds. *Ashes to Ashes: the History of Smoking and Health*. Amsterdam: Rodopi, 164-187.
- CACBC, 2008. *Imagine! Campaign*, Clean Air Coalition of BC. Available from: http://www.cleanaircoalitionbc.com/imagine campaign.html [Accessed 16 June 2009].
- Canadian Press, 2007. MPP bill calls for smoking ban in cars with minors, *CTV.ca*. Available from: http://www.ctv.ca/servlet/ArticleNews/story/CTVNews/20071206/no-smoking-bi-11-071206 [Accessed 23 July 2008].
- Castel, R., 1991. From dangerousness to risk. *In:* G. Burchell, C. Gordon and P. Miller, eds. *The Foucault Effect: Studies in Governmentality*. Harvester Wheatsheaf: Hemel Hemstead, 281-298.
- Chapman, S., 2000. Banning smoking outdoors is seldom ethically justifiable. *Tobacco Control*, 9, 95-97.
- Chapman, S., 2008. Should smoking in outside public places be banned? No. *British Medical Journal*, 337, a2804.
- City of Vancouver, 2008. Health By-Law No. 9535. Vancouver: City of Vancouver.
- City of Whiterock, 2008. *The Corporation of the City of Whiterock Bylaw 1858*. Whiterock: City of Whiterock.
- Dennis, S., 2006. Four milligrams of phenomenology: an anthrophenomenological analysis of smoking cigarettes. *Popular Culture Review*, 15(4), 41-57.
- Douglas, M., 1996/1966. Purity and Danger: an Analysis of the Concepts of Pollution and Taboo. London: Routledge.
- Ellison, R.C., et al., 2001. Exploring the relation of alcohol consumption to risk of breast cancer. American Journal of Epidemiology, 154(8), 740-7.
- Foucault, M. 1970. The Order of Things. New York: Pantheon.
- Gostin, L., 1997. The legal regulation of smoking (and smokers): Public health or secular morality? *In:* A.M. Brandt and P. Rozin, eds. *Morality and Health: Interdisciplinary Perspectives*. Routledge: London, 331-358.
- Gusfield, J.R., 1981. The Culture of Public Problems: Drink-Driving and the Symbolic Order. Chicago: University of Chicago Press.
- Halpern-Felsher, B.L. and Rubinstein, M.L., 2005. Clear the air: adolescents' perceptions of the risks associated with secondhand smoke. *Preventive Medicine*, 41, 16-22.
- Jackson, P.W., 1994. Passive smoking and ill health: Practice and process in the production of medical knowledge. *Sociology of Health & Illness*, 16(4), 423-447.
- Kagan, R.A. and Vogel, D., 1993. The politics of smoking regulation: Canada, France, the United States. *In:* R.L. Rabin and S.D. Sugarman, eds. *Smoking policy: Law, politics and culture*. New York: Oxford University Press, 22-48.
- Key, J., et al., 2006. Meta-analysis of studies of alcohol and breast cancer with

- consideration of the methodological issues. *Cancer Causes & Control*, 17, 759-770.
- King James IV, 1604. *A Counterblaste to Tobacco*. Available from: http://www.jesus-is-lord.com/kjcounte.htm [Accessed 16 June 2009].
- Klein, R., 1993. Cigarettes are Sublime. Durham, NC: Duke University Press.
- Kristeva, J., 1982. *Powers of Horror: an Essay on Abjection*. New York: Columbia University Press.
- Le Guérer, A., 1990. Scent: the Essential and Mysterious Powers of Smell. New York: Kodansha International.
- Mair, M. and Kierans, C., 2007. Critical reflections on the field of tobacco research: the role of tobacco control in defining the tobacco research agenda. *Critical Public Health*, 17(2), 103-112.
- Malone, R.E., Boyd, E. and Bero, L.A., 2000. Science in the news: Journalists' constructions of passive smoking as a social problem. *Social Studies of Science*, 30, 713-735.
- Manderson, D. 1995. Metamorphoses: Clashing symbols in the social construction of drugs. *Journal of Drug Issues*, 25(4), 799-816.
- Marks, L.U., 2002. *Touch: Sensuous Theory and Multisensory Media*. Minneapolis: University of Minnesota Press.
- Nagata, C., et al., 2007. Alcohol drinking and breast cancer risk: an evaluation based on a systematic review of epidemiologic evidence among the Japanese population. *Japanese Journal of Clinical Oncology*, 37(8), 568-74.
- Nussbaum, M.C., 2004. *Hiding from Humanity: Disgust, Shame and the Law*. Princeton: Princeton University Press.
- Poland, B., 2000. The 'considerate' smoker in public space: the micro-politics and political economy of 'doing the right thing'. *Health & Place*, 6, 1-14.
- Repace, J., 2000. Banning outdoor smoking is scientifically justifiable. *Tobacco Control*, 9, 98.
- Steinberg, J. and Goodwin, P.J., 1991. Alcohol and breast cancer risk: putting the current controversy into perspective. *Breast Cancer Research & Treatment*, 19, 221-231.
- Sullum, J., 1998. For Your Own Good: the Anti-Smoking Crusade and the Tyranny of Public Health. New York: The Free Press.
- Thomson, G., et al., 2008. Should smoking in outside public places be banned? Yes. *British Medical Journal*, 337, a2806.
- Turner, V., 1967. *The Forest of Symbols: Aspects of Ndembu Ritual*. Ithaca: Cornell University Press.
- USDHHS, 1972. *The Health Consequences of Smoking*. Maryland, USA: Department of Health & Human Services.
- USDHHS, 2006. The Health Consequences of Involuntary Exposure to Tobacco Smoke: a Report of the Surgeon General. Maryland, USA: Department of Health & Human Services.
- Vergakis, B., 2006. Ban smoking in cars with kids? *Trib.com*. Available from: http://www.casperstartribune.net/articles/2006/04/22/news/regional/f9ff282f05db18848725715700558e2b.txt [Accessed 23 July 2008].

- Walsh, R.A., et al., 2008. Is government action out-of-step with public opinion on tobacco control? Results of a New South Wales population survey. Australian & New Zealand Journal of Public Health, 32(5), 482-8.
- Wilbert, J., 1987. *Tobacco and Shamanism in South America*. New Haven, CT: Yale University Press.
- Winickoff, J.P., *et al.*, 2009. Beliefs about the health effects of 'thirdhand' smoke and home smoking bans' *Pediatrics*, 123, e74-e79.
- Winter, J.C., ed., 2000. *Tobacco Use by Native North Americans: Sacred Tobacco, Silent Killer*. Oklahoma: University of Oklahoma Press.
- Zimring, F.E., 1993. Comparing cigarette policy and illicit drug and alcohol control. *In:* R.L. Rabin and S.D. Sugarman, eds. *Smoking Policy: Law, Politics and Culture*. New York: Oxford University Press, 95-109.