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Silencing science: partisanship and the career of a publication disputing the dangers of secondhand smoke

Sheldon Ungar and Dennis Bray

This paper examines the silencing of science, that is, efforts to prevent the making of specific scientific claims in any *or* all of the arenas in which these claims are typically reported or circulated. Those trying to mute the reporting or circulation of scientific claims are termed “partisans.” The paper examines silencing through a systematic examination of the “rapid responses” to a smoking study published in the *British Medical Journal* claiming that secondhand smoke is not as dangerous as conventionally believed. Media coverage of the smoking study is also examined, as is the question of whether there is self-silencing by the media regarding doubts about the negative effects of passive smoke. The results suggest that the public consensus about the negative effects of passive smoke is so strong that it has become part of a regime of truth that cannot be intelligibly questioned.

1. Introduction

Thanks for turning back the clock on public health decades or more. We don't need this kind of negligence from what used to be a professional medical publication. I seriously wonder who got paid off at *BMJ* to publish this utter garbage.

Dale Jackman

Seriously Annoyed

I won't dignify this rag with my credentials¹

This quotation is from the “rapid responses” to a paper on secondhand smoke (hereafter the smoking article) by Enstrom and Kabat (2003) published in the *British Medical Journal* (*BMJ*). Other rapid responses castigate the *BMJ* for its “tabloid style journalism” and suggest that it is seeking publicity and controversy in publishing this paper that presents results suggesting that passive smoking is far less dangerous than often believed. The editor of the *BMJ* speaks of going “From hero to pariah in one easy jump,” as others seek a retraction or an apology.

This does not sound like standard scientific discourse to us. Something is different—and seemingly awry. Editors are not ordinarily whipping boys, subject to harassment by “outsiders” who are not scientific specialists in the domain of interest and are acting on

extra-scientific agendas. But our concern is not to judge this discourse so much as to identify, define, and develop its characteristics and implications for scientific publication, reporting, and policy usage. We refer to these activities as silencing science; those who engage in the silencing efforts are termed partisans.

2. Conventional scientific norms as an ideal type

Efforts to silence health researchers are not new. Pierre Louis, for example, was vilified nearly two centuries ago for suggesting that bloodletting was an ineffectual therapy (Donnay et al., 1997). This occurred, of course, before science was professionalized, and recent research indicates that scientists typically tolerate competing ideas and rely on claims of superior knowledge and a positivist epistemology in seeking to adjudicate differences and—more or less—achieve closure (Martin and Richards, 1995). The “more or less” is critical here, since closure is not a conventional scientific norm and, if applied too vigorously, undermines the possibility of science.

Science is different from other pursuits of knowledge, though it is not easy to identify what demarcates it from other ways of knowing. If one looks at the practice of scientists, it can be argued that the notion of any universal criteria is rendered problematic by contextualized diversities (Taylor, 1996). Here we suggest looking at ideal scientific norms not as something invariable, but as normative values that scientists espouse and by and large *aspire to* and try to *render visible* in their (public) activities. Whereas the details are messy and the execution often faulty or eccentric, it is in the larger view over the longer run that *efforts* to display normative compliance are by and large actualized in the scientific process.

Consider the central normative complex related to *openness*—open access to data and findings, to new (or controversial) ideas, procedures and evidence, and to revision and renewal; in other words, the converse of secrecy and closure. Perhaps the most egregious violation of this normative complex was initiated by T.D. Lysenko (1898–1976), a Soviet scientist who rejected the dominant genetic understanding of evolution and postulated instead that hereditary changes could be induced by environmental influences (Soyfer, 1994). Insisting that his ideas corresponded to Marxism, he attracted official support from the Communist Party, which wanted biology, like all sciences, to be recast in terms of dialectical materialism. This led to a silencing of genetic evolutionists, with witch-hunts and the persecution of conventional geneticists as “enemies of the Soviet people.” Lysenkoism was only possible due to political interference in science, and it was repudiated shortly after the death of Stalin. The upshot was backwardness in Soviet biological science, though this proved to be self-correcting over the long run in a highly repressive, ideological environment. In other words, the “creative Darwinism” that promised unheard-of varieties of wheat proved to be a disaster for Soviet agriculture.

Science of course does not operate in a vacuum, and social constructivists have tried to show how cultural, political, social, military, and other factors affect the acceptance and reporting of scientific ideas (Jasanoff and Wynne, 1998). The review process in particular must afford room for novel ideas and approaches, presumably with various institutional mechanisms in place to help promote openness.² Thus it is critical to have sufficient openness so that maverick scientists are not ignored but find opportunities to publish and gain attention for their work (Dearing, 1995). Reviewers and editors must *strive* to attain a level of impartiality such that they are amenable to new and controversial ideas and findings, even if contrary to their own beliefs. Striving is not realization, and researchers do develop

commitments to ideas and approaches, often with reputations and funding deeply implicated.

If constructivist ideas were once contentious, they have been rendered more transparent by recent developments, including the growth of “big science” along with the commercial exploitation of science, expanded media coverage of research, growing public concern with risks, and the greater harnessing of science to social goals and policy (Horton, 2004). A clear example that encompasses all of these developments arises from the funding of drug trials by large pharmaceutical firms. Such funding has given rise to controversy over conflict of interests and the full revelation of research findings. This came to a head and garnered tremendous media attention when Apotex Inc. tried to prevent Dr. Nancy Olivieri, a clinician at the Toronto Hospital for Sick Children and member of the medical faculty at the University of Toronto, from publishing negative findings from her research on the Apotex drug deferiprone (Bloch-Nevidte, 1996). This, and other high-profile “silencing cases” directed against defiant researchers willing to publicly challenge pharmaceutical firms, led the editors of a dozen leading medical journals to issue a warning to the pharmaceutical industry to publish all research data (de Sousa, 2001). In terms of our ideal type, scientists prize openness but have been compelled by external developments to formulate compromises—such as declaring “competing interests” when funding sources are suspect or individuals stand to gain financially from their research—that ultimately weaken efforts to uphold full disclosure of research findings.

As a result of these recent developments, and abetted by new technology such as the Internet, there has been an amplification of scientific controversy that fosters an increasingly intense and acrimonious scrutiny of methods, results and even personal integrity by competing scientists, the media and various interest groups (Donnay et al., 1997). If one specifically looks for the most intense and intractable scientific controversies, they are typically framed in terms of moral or religious absolutes (Nelkin, 1995). Here we see efforts to block or “keep out” specific scientific developments or applications that are deemed *inherently* wrong: animal experimentation, fetal research, and some forms of genetic engineering. But now extreme conflicts have gone beyond these moral bounds. In place of what were once jousts in obscurity over arcane matters, many scientific disputes now overflow into different public arenas and involve uncivil efforts to silence researchers for political, ideological, social or even economic reasons. Accusations of junk science, cherry picking and stacked committees have become strikingly commonplace (see below).

3. Partisans and the silencing of science

The silencing of science is not so much a state of affairs as an endeavor. It entails efforts to prevent the making of specific scientific claims in any *or* all of the arenas in which these claims are typically reported or circulated. Arenas range from scientific journals, through Web sites, government panels, hearings and reports, the mass media, popular science programs and pamphlets, and so on. To illustrate, numerous accusations have been made against the Bush administration for trying to silence science. A report prepared by the minority staff of the House Committee on Government Reform, as well as open letters by 20 Nobel laureates and the Union of Concerned Scientists claim that the political and ideological concerns of the Bush administration have led to misleading statements, inaccurate responses to Congress, altered public Web sites, suppressed agency reports, and the

gagging of scientists (Agres, 2003; Glanz, 2004). The most recent controversy involves the top Food and Drug Administration (FDA) officials barring the agency's top expert from testifying at public hearings about his findings that antidepressants cause children to become suicidal (Harris, 2004a).

We use the term partisan to describe those trying to mute the reporting or circulation of scientific claims. Partisan is a felicitous metaphor, as it encompasses two levels—ideas and actions. At the first level, a partisan is a firm adherent to a belief or cause; the partisan tends to have an unreasoned allegiance to this, and *not* to truth. This contravenes, of course, the normative complex surrounding openness in science.

At the second level, a partisan is a member of a military unit or guerrilla band harassing an enemy. For our purposes then, partisanship involves not only a dogmatic adherence to a belief, but also the use of a wide range of tactics to silence opponents of that belief in any arena in which it is presented, reported or used. Partisans seek not only to authoritatively lay down their (scientific) position, but to shield it by engaging in silencing skirmishes that can include, among other things, intimidation, slander and discredit, gagging, budget cuts, and the removal of opponents.

As can be gleaned from the discussion throughout this paper, partisans are not a unitary group but can be composed of state officials, large firms or sponsorship organizations, scientists, interest groups, and/or members of the public. The underlying coherency lies in the goal of silencing specific scientific claims, with partisans making use of silencing skirmishes to control what passes for the truth. For the most part, they will employ the least extreme method necessary to silence those who dispute the scientific beliefs they seek to uphold. Thus the Olivieri case revealed that pharmaceutical firms sought compliant scientists who would adhere to contracts giving firms proprietary control over research data (de Sousa, 2001). Refuseniks like Olivieri provoke very public and often nasty clashes.

While the notion of “scientific war” gained a brief currency, it, like partisanship in science, is an inherently problematic idea (Ross, 1996). “Political partisanship” is widely used and fully understandable (and almost redundant). But “scientific partisanship” borders on the oxymoronic. If fully realized, scientific partisanship entails, as noted above, closure, intimidation, and silencing, rendering science impossible. This is a radical disjuncture from the normative complex of openness, and goes far beyond Foucault's use of power and regimes of truth. According to Foucault (1980: 131),

Each society has its regime of truth, its “general politic” of truth: that is, the types of discourse which it accepts and makes function as true; the mechanisms and instances which enable one to distinguish true and false statements, the means by which each is sanctioned; the techniques and procedures accorded value in the acquisition of truth; the status of those who are charged with saying what counts as true.

Furthermore, “‘Truth’ is linked in a circular relation with systems of power which produce and sustain it, and to effects of power which it induces and which extends it” (Foucault, 1980: 132). Here power is diffuse, largely invisible (this provides the revelatory aspect of the analysis), and more than simply repressive. With the partisan silencing of science, power is often repressive and exercised transparently. Truth by decree or command is displacing a discursive formation sustaining a regime of truth. For Foucault (1980: 132) “‘Truth’ is centred on the form of scientific discourse and the institutions which produce it,” while the partisan use of science can subvert conventional forms like peer review.

Given the normative complex of openness coupled with a generalized preference to

minimize overt conflict, it follows that partisans will generally employ the least extreme methods possible to silence science. Indeed, the ideal form of silencing approaches Foucault's concept of truth regimes: specifically, "self-silencing," which is likely to occur when forms of discourse seem so patently obvious and sanctioned by leading institutions that they are presented as givens and are difficult or impossible to challenge. Here competing ideas are ignored because they are not only unbelievable, but they do not fit with the prevailing forms of talk institutionalized in the speech community. Later we will suggest that closure and self-silencing can be found in *some* public arenas around the issue of the dangers of secondhand smoke. Sensible talk can deal with the processes and mechanisms for the protecting of people from this smoke, but the prior question about the *need* for such protection seemingly falls outside the realm of legitimate discourse in these arenas.

Beyond the general tendency to avoid extreme methods, silencing tactics further depend on the kinds of partisans involved. Scientists themselves, especially those who are experts in the area of research under question, are likely to use the least extreme tactics. Not only will experts in the field have the knowledge and tools to mount a conventional scientific attack on the offending ideas, but they will have sufficiently imbibed the norms of openness that they will tend to recognize or tolerate deviant ideas (Nelkin, 1995). Those with some knowledge of the field, whether holders of some scientific knowledge (e.g., physicians), or practitioners applying knowledge in that realm, have less expertise to formulate criticisms and are likely to be less restrained by norms of openness and the informal controls extant in the specific research domain. Outsiders, or the lay public, are expected to be the least restrained of all partisans. Not only do they lack training in the area, but they have the least to lose and are involved in the domain as a result of personal beliefs or choice. Hence they are most likely to engage in personal abuse, intimidation, and open calls for silencing.

This study investigates the silencing undertakings that developed around the smoking article that claimed secondhand smoke might not be as dangerous as usually believed. While defenders of smoking typically argue in terms of individual rights, smoking has become a realm of "medical policing" (Rabinow, 1991: 171), where it has been made the object of ongoing surveillance, analysis, intervention, and modification. Smoking, or advocating smoking, where others are exposed to the side-stream smoke is widely regarded as a risky behavior that is unacceptable and puts those who engage in it in moral jeopardy. Effectively, and akin to child molesters, they are disqualified as "fit and proper members of the social order" (Danaher et al., 2000: 61). The (activist) partisans who attack side-stream smoke as a life and death issue are generally not amenable to debate, but regard its hazards as uncontrovertibly established and use this (perceived) closure to try to silence (morally suspect) opponents. The partisans are aptly engaged in a war, with skirmishes that range from medical journals through tobacco advertising to the restaurants and pubs of the world.

The core of this study is a systematic analysis of the "rapid response" by partisans that followed the publication of the smoking article. It uses both quantitative and qualitative data to examine the silencing tactics employed by the different kinds of partisans. We then examine international media coverage of this study, based on searches of the Internet. The results of the Internet search, which indicate a high degree of self-silencing by the media, led us to extend the investigation to media coverage of smoking in general. Here the goal was to understand the discourse that exists around the topic, particularly to get a grasp on aspects of the issue that are taboo—i.e., that fall outside the domain of sensible and legitimate discourse.

4. The *BMJ* smoking article

In mid May 2003 the *BMJ* published the Enstrom and Kabat (2003) smoking article replete with an editorial and a press release. The *BMJ* headline on its cover page said, "Passive smoking may not kill," and this was a particular source of antagonism. At the same time, the editorial accompanying the article, by George Davey Smith (2003), a professor of clinical epidemiology, warns that the researchers "may overemphasize the negative nature of their findings." It also points out that they found an increase in chronic obstructive pulmonary disease associated with secondhand smoke.

The article is a prospective cohort study covering 39 years. The sample was 118,094 Californian adults who enrolled in late 1959 in the American Cancer Society cancer prevention study and were followed until 1998. Particular focus was on the 35,561 never smokers who had a spouse in the study with known smoking habits. The authors concluded that:

The results do not support a causal relation between environmental tobacco smoke and tobacco related mortality, although they do not rule out a small effect. The association between exposure to environmental tobacco smoke and coronary heart disease and lung cancer may be considerably weaker than generally believed. (Enstrom and Kabat, 2003: 1088)

The article immediately attracted *some* media coverage and a series of rapid responses on the journal's Web site devoted to it. Anyone with Web access can send a rapid response, and these are published on the Web site so long as they are deemed relevant to the research in question. (The range of rapid responses suggests that very little if any gatekeeping was exercised.) Here we first analyse the rapid responses in terms of how extreme they are and the kind of partisans that make them. We then examine the media coverage of the smoking article and the topic of smoking more generally.

Analysis of rapid responses

Figure 1 reveals that there were 134 rapid responses, with the bulk of these coming in the first two weeks.³ Many of these were so scathing that the editor of the *BMJ*, Richard Smith, also wrote a rapid response and then an editorial about the publication process. Because of these pressures, the journal took the exceptional step of putting a "prepublication history" on the Web site. This included the peer-reviewed comments, the report of the editorial advisory committee, and responses by the authors. Notably, all of these are usually not made public.

The *BMJ* rapid response form on the Web asks for author information, and these answers, as well as any details provided in the actual responses, were used to divide partisans into three expertise levels. The first was experts: those, such as medical epidemiologists, who had the professional skills and specialization to peer review articles on secondhand smoke. The second category was termed knowledgeable: it included respondents who had some professional stake or interest in the issue, including doctors, public health workers, members of pro- or anti-smoking lobbies, and so on. Since we are particularly interested in this category analytically, those whose credentials seemed borderline were classed as experts, avoiding the problem of inflating the numbers in the second category. The third category was termed laypersons: it included those who provided either non-related credentials (homemaker) or no credentials at all. As can be seen in the bottom row of Table 1, only 23 percent of respondents were experts, while 51 percent were

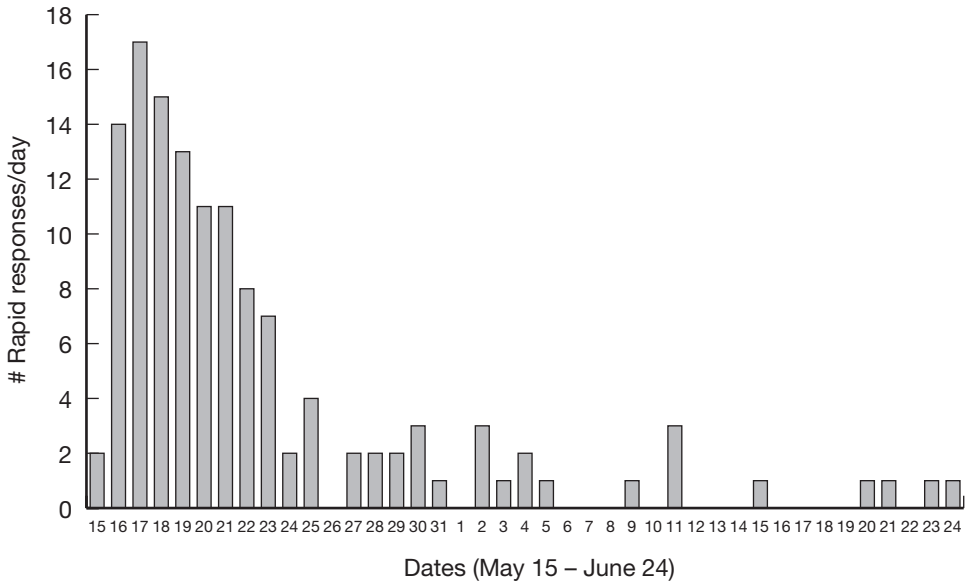


Figure 1. Number of rapid responses on the *BMJ* Website.

knowledgeable. This leaves 26 percent of responses from what is likely to be just the “public.”

Rapid responses were further categorized in terms of their assessment of the publication decision by the *BMJ*. Again, three categories were employed: positive evaluations, negative evaluations, and neutral evaluations. The last often just provided information (such as noting that the prepublication history would be posted) or were sidetracked on somewhat related issues but did not deal specifically with the smoking article. Negative evaluations immediately followed publication of the article, which was typically deemed sufficiently “flawed” and “irresponsible” that it should not have been published in the first place. Positive evaluations came in the wake of this attack and defended the decision to publish.

Table 1 shows the relationship between level of expertise and publication evaluations. Overall, 62 percent of responses are negative (this figure climbs to 75 percent if we ignore neutral responses). Differences across the different levels of expertise are minor and do not reveal any clear trends. There is a tendency for laypersons to be more positive than the other two categories (31 percent vs. 17 percent), but there is no way of determining the biases or affiliations of those who did not provide credentials.

While our main concern is with the negative rapid responses, a brief note on the positive ones is in order. For the most part, positive responses tend to applaud the *BMJ* for bucking

Table 1. Rapid responses by level of expertise and evaluation of the publication decision.

Evaluation of publication decision	Level of expertise			Total
	Expert	‘Knowledgeable’	Layperson	
Positive	5	12	11	28
Negative	20	44	19	83
Neutral	6	12	5	23
Total	31	68	35	144

what they perceive as the political correctness trend. At the same time, especially among those who belong to the smokers' rights lobbies, there is a tendency to see a conspiracy against smokers. One rapid response that provides a nice summary of many of the issues is as follows:

As publisher of the leading Australian medical online news service I feel quite embarrassed following the debate on this article. Many postings look more like a witch hunt than like a scientific debate. While I do understand that anti-smoking lobbyists . . . are very disappointed about this article, I cannot understand or accept many of the reasons that are given for this sentiment and for rejecting the article.

Effectively, this comment confronts the silencing elements of the debate.

Our main analysis entails a systematic examination of the 83 negative rapid responses. Before we turn to the data, consider a rapid response by a knowledgeable responder termed "Irresponsible Journalism":

I was genuinely shocked to see this splashed across the front page of this week's *BMJ*, tabloid-style. An industry-sponsored, methodologically flawed study with inconclusive results but with major potential public health implications especially once the press get hold of it. "Passive smoking may not kill." How much would the tobacco industry pay for such a soundbite in a major peer-reviewed journal? Since when did I pay my subscription so that you could do their dirty work for them?

This response, as with the one cited at the outset of this article, is typical, especially among the non-expert partisans. The negative rapid responses are largely silencing condemnations and, to reiterate, are anything but the "quiet" or "subtle" coercions that can be effective due to their invisibility (Rabinow, 1991: 137). Silencing is based on intimidation, as partisans employ a strident tone full of sarcasm and moral indignation. There are elements of an authoritarian cult involved here: uphold the truth that secondhand smoke kills—or else!

To systematically examine the negative rapid responses, these were coded in terms of five target categories, with a response capable of attacking multiple targets. The specific targets were as follows: the article per se, where the article is condemned but no argument is put forth; flaws in the article, where the response includes a recognizable argument against the conclusions reached in the article; tobacco/authors, where bias due to funding by the tobacco industry or conflict of interest on the part of the authors is imputed; the journal/editor, where either of these is maligned directly for the publication decision; and media/public, where concern about the amount of media coverage or setbacks to anti-smoking crusades are at issue.

Table 2 shows the targets of negative evaluations by the level of expertise. As expected, experts are much more likely, proportionately, to point out flaws in the article rather than just condemn it without any reasons. But note in this regard that we simply coded the presence of a criticism, and this in no way assures that it is cogent or reasonable. Clearly, we are not in a position to assess the publication decision or the validity of the article's conclusion. However, even when criticisms seem to have some face validity, they often beg the question of whether other longitudinal studies, considering the length of this study and the sample size, are significantly better.

Level of expertise is not related to attacking the tobacco industry or the authors for accepting funding by that industry. What is significant is that over half of the rapid responses attack these targets, often quite vociferously. In most of these responses, the fact that the research was funded by the tobacco industry is taken as sufficient evidence that the research is biased, untrustworthy, and should never have seen the light of day. The industry,

Table 2. Rapid responses by level of expertise and target of the negative evaluations.

Target of negative evaluations	Level of expertise		
	Expert (<i>n</i> = 20)	'Knowledgeable' (<i>n</i> = 44)	Layperson (<i>n</i> = 19)
Article per se	4	10	5
Flaw in the article	15	13	5
Tobacco/authors	10	22	13
Journal/editor	1	24	11
Media/public	3	21	8
Total	33	90	42

among other negative motives, seeks to “create confusion,” “controversy” and “keep doubt alive” about passive smoking. In the same way, the authors are regarded as irredeemably tainted by their association with the industry.

To put this in context, we need to return to our earlier example of the Olivieri controversy, which revealed clear attempts by the drug company to suppress controversial findings. In the same vein, several courts have found that various manufacturers of dietary supplements have hidden research findings and cajoled some researchers into fudging results in published scientific articles (Fessenden, 2003). But in the case of the smoking article, one rapid response argues: “The question facing us is whether the authors changed their results or methodology because of the source of their funding. No one in the responses you have published suggested they did.” While the recent history of the tobacco industry suggests that there is reason to be suspicious of results from studies they fund, vague allegations are not evidence, and it is not clear that the conflict of interest in the smoking study falls outside the norm of much of the pharmaceutical research that is undertaken and published.

According to Ziman (1968: 28), “A sure symptom of non-science is personal abuse and intolerance of the views of one scholar by another.” The fourth row of Table 2 reveals that while experts did not engage in personal attacks, more than 50 percent of respondents in the other two categories did so. These scientific outsiders are seeking to capture what passes for knowledge in this domain and are injecting political and evaluative elements into it when the science just won’t cooperate. Since they are absolutely certain that passive smoke kills, it is unacceptable to publish contrary findings—either because of obvious flaws in this study that reviewers (somehow) missed or, and more to the point and more vociferously, because the results are tobacco-funded, the journal is misguided, and/or the effects on the anti-smoking cause are negative and hence intolerable. Thus respondents are “alarmed and dismayed,” want the article “withdrawn” or a “public retraction,” urge organizations such as the British Medical Association to “denounce” the article, and in a few instances demand the resignation of the editor. The *BMJ* has now become a “comic” journal. Moreover, “To begin atoning for publishing . . . [you] should apologise on the front cover, in an editorial and in the promotional release of a forthcoming *BMJ* issue.”

The sin of publication is made clear in the fifth row of Table 2. Many of those classed as knowledgeable are involved in anti-smoking jobs or organizations and are alarmed about the (ostensible) outpouring of media coverage and its effects on anti-smoking campaigns. Consider some statements in this regard: “The study has already been widely cited by the lay press and is being used by the tobacco industry to block public health efforts to enact smoke-free policies.” Furthermore,

BMJ, what have you done? This is not dispassionate journalism. It is journalistic naivete taken to the nth degree, which undermines the efforts of all medical professionals who actively work to improve the quality of life and prevent preventable

suffering. Why do you claim that there is a “controversy” when none exists? Wake up! The jury is not out—it is IN. Guilty of murder. With malice afterthought [sic].

Added to the reiterated fear that the media would have a field day with the findings was the apprehension that the “tobacco industry will get substantial mileage from this flawed article.”

As the industry is already demonstrating, this “result” will be pumped throughout the globe in industry PR, in the mouths of its front organizations, as “controversy” over passive smoking.

These claims will be examined in the next section.

In sum, these negative rapid responses are clearly efforts to condemn and silence the *BMJ* on the issue of secondhand smoke. Even the experts, who were most likely to point out flaws in a conventional scientific critique of the article, ventured about the same proportion of attacks at the tobacco industry and other targets. As expected, they did pay heed to the normative complex of openness and only directed one attack at the editor/journal. Instead, they focused their more malevolent condemnations on the tobacco industry and the researchers’ affiliations with it. This, of course, is a safer target that is not readily shielded by scientific norms.

The two groupings of non-expert partisans were less discriminating in their targets. Their rapid responses averaged over two targets each (experts averaged 1.6 targets). These partisans, certain that secondhand smoke kills, are engaged in a crusade against evil, employing an array of overt invective and coercions to silence their opponents. A common tactic among the less scientifically literate lay partisans is to tell “atrocious stories” about the effects of exposure to the smoke of others on innocent victims (Webb and Stimson, 1976). Thus one rapid response is titled, “Why am I dying from lung cancer caused by second-hand smoke?” Their ultimate concern is that the smoking study itself, accompanied by the anticipated publicity attendant on it, will be used to counteract public health efforts to control secondhand smoke and lead to more deaths.

Media coverage of the smoking article

Partisans face an exposure dilemma. If they vigorously take on opponents, this may generate far more publicity than if they ignore them. The *BMJ* smoking article itself falls into the “unreadable” category for nearly everyone; the rapid responses are also something that few would encounter as such. As previously noted, however, partisans were fearful and more or less certain that the media and tobacco interests would sensationalize these findings and use them in a concerted campaign to combat public health efforts. Since health issues are commonly covered in the media, we expected at least a “blip” of coverage, with the prospect of editorial commentary paralleling the rapid responses (Ungar, 1996). Significantly, these claims can be investigated. To track the “career” of the smoking article, this section examines the amount and nature of its coverage in newspapers and then examines how it is employed by the tobacco industry.

We employed a multi-pronged search strategy to check international newspaper coverage of the smoking article. Searches for both the authors and the article were conducted on both general and media search engines; these were done for English, French, and German sources from mid May through mid June 2003. As well, a number of important newspapers (the *New York Times*, *The Globe and Mail* (Canada)) were searched individually over the same period. Since so many rapid responses alluded to media coverage, on 24 June, when the debate had effectively ended, we sent a rapid response and asked people to send us

any information they might have collected on media coverage. This elicited a response from the Director of Media Relations at UCLA's Jonsson Cancer Centre. It stated that Dr. James Enstrom (a researcher at this center) asked that the list be sent to us. It is described as "a not complete but comprehensive accounting of who covered the *BMJ* study in the days following publication." Several additional responses were also received.

Combining all sources, we found coverage in 60 newspapers: 20 from Britain, 15 from the United States, and 25 from other countries. Several key features stood out immediately. Almost all of the coverage appeared in the first week following the publication of the smoking article. Excepting the British *Telegraph* and *Guardian*, and the Canadian *National Post*, no newspaper published more than one article on the story. Many of the important newspapers in Canada and the US (including the *New York Times*) did not cover the story. Further, much of the coverage came from what might be called minor newspapers, such as the *Gwinnett Daily Post* from Georgia, USA.

But the most significant finding is the relative lack of coverage of the article altogether.⁴ There are countless newspapers on the Web from Canada, yet only four articles were found in our searches. An e-mail we received replying to our rapid response to the *BMJ* pointed to two articles in France, one a note of about 100 words. Another e-mail we received from a member of Forces, a smokers' rights organization deserves to be read:

I can tell you that I have closely followed the effects of this article in the Dutch press. It's incredible how little newspapers have reported on this study. Only two Dutch newspapers have published it . . . this E&K study looks to be self-censored by the public Dutch media. (W. Maessen, personal communication, 26 June 2003)

Clearly the results we found do not support the claim that the article would be "widely cited."⁵ Indeed, there are three reasons to indicate why the blip of coverage that we expected did not occur. First, so few papers, internationally, covered the study. Second, the most important (high prestige, high circulation) national papers simply ignored it. Finally, it did not generate any editorial responses or letters to the editor. Given the rapidity with which partisans dispatched rapid responses, it seems likely that they were primed to defend their moral turf. But newspaper reports on the article did not appear widely enough, and the scattered appearances were fleeting. In this regard, research consistently reveals that the agenda-setting impact of the media is long term and cumulative rather than event-driven in the short term (Shanahan and Good, 2000). So fleeting was the coverage of the smoking article that it could hardly be termed a "blip."

A further reason that the partisans may have held their condemnations in abeyance emerges from the nature or content of newspaper coverage of the issue. We were able to download over half of the articles in our listing (links expire, some papers require membership) and these were coded in terms of how positively or negatively they covered the *BMJ* smoking article. For the most part—the exceptions are discussed below—these articles are not "balanced" but, in contrast with most science reporting in the media, present the findings in a negative context. Consider the first sentence from the *Sacramento Bee* (California) of 16 May: "A new study downplaying the effects of secondhand smoke on the health of smokers' spouses is being condemned even before it has appeared in print." This was followed by a two-sentence description of the research, followed by a quote from a scientist who described the study as a "pretty crappy piece of science." Additional negative commentary ensued. While this is an extreme example, most articles follow a fairly predictable format: a brief summary of the findings followed by mostly negative assessments by different experts stressing the overwhelming evidence revealing the negative impacts of passive smoke. In some instances there are also statements from smokers' rights

groups defending the research. Still, the bulk of the reporting is negative, with far more detailed and rancorous comments on the study than positive or neutral ones. Those who read virtually any of these articles, especially in the context of the enduring and systematic claims about the negative effects of secondhand smoke, are not likely to be convinced by the claims made in the study. In other words, we are not given a portrait of “dueling scientists,” but of marginal claims that are largely dismissed.

Only four articles from our international search of the Internet covered the smoking article in a clearly positive fashion, and these focused on the sense of partisan repression and silencing. According to the *National Post* (Toronto, Canada) of 20 May:

To believe that second-hand smoke may not be very harmful has become a thought-crime almost akin to Holocaust denial. Those who dare express doubts must expect hysterical abuse from every point of the PC compass.

And the British *Telegraph* of 19 May asserted:

Researchers who dissent from the party line face character assassination and the termination of grants. Those who report their findings are vilified as lackeys of the tobacco industry, and accused of professional misconduct (in 1988, campaigners tried to have this newspaper censured by the Press Relations Commission for our reports on passive smoking. They failed).

For the most part, these remarks reflect the tenor of the comments made by many of the non-expert partisans who opposed the *BMJ* decision to publish the smoking article.

The final method for examining whether the smoking article would gain wide exposure and be exploited to further the cause of smoking is to look at its use by the tobacco industry. Since tobacco advertising is prohibited in most jurisdictions, Web sites provide one of the last venues for the industry to communicate with smokers. Our examination of three Web sites in early August 2003—British American Tobacco (BAT), Philip Morris International, and Brown and Williamson Tobacco⁶—revealed that only the first referred to Enstrom and Kabat’s paper (it came second to a World Health Organization study critical of passive smoking). The BAT site questioned the link between passive smoking and health and had a sample petition that, citing the smoking article, “sought sensible public and workplace smoking policies that accommodate both smokers’ and non-smokers’ rights.” The site discouraged smoking around children and asthmatics.

The other two tobacco sites do not refer to the smoking article (links are provided to cancer society and government Web sites, however) and provide a rather critical viewpoint. Thus: “Philip Morris International believes that the conclusions of public health officials concerning tobacco smoke are sufficient to warrant measures that regulate smoking in public places.” It appears, then, that partisan fears that the tobacco industry would use the smoking results to resist controls on smoking in public venues are largely misplaced.

5. Self-silencing by the media?

Altogether, these results were somewhat surprising. Not only was there a paucity of newspaper coverage that largely tilted against the conclusion of the smoking article, but even tobacco firms took a circumspect stance on the issue. We expected at least a noticeable blip of media coverage as this would fit with the conventional norms of reporting. We first

examine the reasons for the expected blip of coverage and then present results on media coverage of smoking in general.

To begin, the media prefer to cover stories for which there is a history of prior interest and coverage (McQuail, 1985). This gives them a “hook”—something to tie the story into that is likely to resonate with their audiences. As elaborated below, secondhand smoke is a longstanding issue that garners considerable coverage as efforts to control passive smoke spread around the globe. The speed and vigor of the rapid responses directed at the *BMJ* further suggest that a natural audience exists for stories in this realm.

The media also aims at “balancing”—presenting both sides of a story in a relatively equivalent manner even when the evidence does not support a sense of equilibrium between the two sides (Dearing, 1995; McQuail, 1985). A notable and contentious example of this comes from climate change, where there is a tendency to balance the coverage of conventional scientists with that of the skeptics who challenge the scientific consensus. Yet the skeptics constitute less than 5 percent of the scientists working in the area, and many of them are funded by the oil industry. There was no *a priori* reason to not expect the application of the balancing norm to the smoking article. In other words, the norm is so commonly used that its absence, not its presence, compels explanation.

A further reason to have expected a blip of coverage is that the media thrive on controversy, particularly personalized conflicts or images of dueling scientists (Ungar, 1998). Such conflicts have been a key element in the climate change coverage, and the smoking article fulfilled many of the prerequisites for personalized controversy—Enstrom’s history of support for tobacco claims; the funding of the study by tobacco interests after other sources of funding were refused; the record of the study itself, which was started by the American Cancer Society and then dropped by that society; and of course the partisans and the pro-smoking organizations ready to take up the cause.

A related issue central to media interest is whether the scientific evidence points to closure around the risks of secondhand smoke. In other words, are the risks of secondhand smoke still subject to reasonable uncertainty and debate? Our review of the literature indicates that closure has not been achieved and is not immanent; Enstrom and Kabat are not a singularity, but reflect a wider scientific debate over a number of issues. According to the *Canadian Medical Association Journal* (2003), the results from Enstrom and Kabat underscore some intractable problems:

In trying to understand the risks posed to human health by environmental contaminants, we have a limited range of research methodologies at our disposal. We cannot do randomized trials to test the effects of smoking . . . We’re stuck with observational studies: always messy, confounded, susceptible to passion and open to dispute. The problem with the data on passive smoking . . . is that the estimated risks are so close to zero.

The last point, which contrasts sharply with the large magnitude of effects found among smokers, is utterly lost outside the scientific literature.

While we are not competent to review the scientific evidence on secondhand smoke, it is worth noting that the debate has flowed over into the courts. Specifically, Judge William Osteen (1998) ruled that the United States Environmental Protection Agency (EPA) wrongly declared secondhand tobacco smoke a dangerous carcinogen in its 1993 report. In his ruling he wrote, “The court vacates Chapters 1–6 of and the Appendices to EPA’s *Respiratory Health Effects of Passive Smoking: Lung Cancer and Other Disorders*.” This ruling was based more on procedural rather than scientific grounds (for example, Osteen concluded that

the EPA had “cherry picked” the findings, ignoring studies that showed no effect). The validity of the ruling is not what concerns us here. Rather, the decision reveals that the debate is not closed and scientists are still jousting over many aspects of the topic.

To reiterate, given media conventions pertaining to the use of hooks, balancing, and controversy, coupled with ongoing scientific debates in different arenas over the risks of secondhand smoke, the smoking study seemed eminently newsworthy. That the study was essentially ignored and presented without balancing is a striking reversal of standard media practices, and this calls for explanation. Following Foucault’s concept of truth regimes, we are hypothesizing that the evidence is consistent with self-silencing by the media. Smokers are now the deviants of choice, ever-present, identifiable, and highly vulnerable targets (unlike either child molesters or terrorists), subject to an extensive and ever-increasing range of social controls. In the ongoing skirmishes, we suggest that doubts about the negative effects of passive smoke are inadmissible and unintelligible. The general regimes and moral politics of truth do not countenance such doubts; they are simply not sensible forms of discourse.

To examine the hypothesized self-silencing by the media, we registered in early September 2003 for a once-a-day Google News Alert for “smoking.” Google claims to search 4,500 news sources; these are from around the world, but all in English. The smoking alert generates about ten articles daily, and virtually all are on topic. We peruse the titles daily (this is ongoing), and open all those that even hint at opposition to bans on smoking in public places and those that have anything to do with the effects of secondhand smoke. We review the smoking coverage generally to set the context for examining the self-silencing hypothesis.

The results generated by the Google smoking alert were surprising in several respects. One is the sheer extensiveness of the anti-passive smoke movement. This movement can be described as loosely tied networks of partisans who operate, across the globe, by emulating and leapfrogging each other’s actions. Actions at a local level tend to go regional (thus banning smoking in local bars is problematic if people can drive to a nearby jurisdiction without a ban), and then often national and international in a simple copycat fashion. Leapfrogging is more interesting. Smoking bans develop quite unequally, and jurisdictions that fall behind can set the standard by jumping to a new level. Thus Ireland, which is noted for its high proportion of smokers and lagged behind other nations in controlling them, became the first country to impose a nationwide ban on smoking in bars and restaurants on 29 March 2004. Norway, another relative laggard, became the second nation to impose such a ban on 1 June 2004.

Beyond restaurants, bars, workplaces, public buildings, airports and so on, the articles reveal a constant effort to find new targets to which bans can be extended. In California, a growing number of beaches now forbid smoking, and this is being copied in Australia. Again in the lead, California is moving to ban smoking in vehicles (including private cars) with children on board. A large majority of the Google smoking articles—we estimate over 60 percent—deal with successful efforts to extend bans. It is in this context that we can grasp a self-silencing effect pertaining to doubts about the negative effects of passive smoke.

We begin with smoking defenders, who are engaged in rearguard actions against smoking bans. We perused all articles that dealt with smoking defenders, and specifically examined the claims made to defend smoking in public spaces. Two types of claims emerged. One had to do with the rights of smokers, largely based on the claim that cigarettes were a legal product and could be used where they do not impinge directly on others.

Separate designated smoking rooms were a clear example of this. But what is noteworthy here is the clear balancing of the news reports, with smokers' rights challenged by the need to protect workers in bars, restaurants, and so on. Invariably, there are claims made about the ill effects of secondhand smoke on workers, often based on atrocity stories. Yet—and this is critical—smoking defenders rarely challenge the scientific claims or stories. In other words, they do not ground their defence in scientific doubts, but largely submit to the validity of the science by trying to separate smokers and non-smokers or find some other means of coexistence.

The other line of defence for smokers is the loss of income suffered by bars in particular. As above, newspaper articles evince clear balancing, with an overriding concern for innocent victims (bar workers), as well as attempts to argue that the decline in business is temporary. To reiterate the most central point, once again the arguments never challenge the deleterious health claims made about secondhand smoke. That they are ignored by smoking defenders indicates that they are not simply undisputed but undisputable truths.

Finally, we perused articles on the scientific effects of smoking. Notably, more coverage was devoted to secondhand rather than firsthand smoke. In the latter case, an interesting check of the self-silencing hypothesis comes from examining media coverage of the possible *beneficial* effects of smoking. Smoking may benefit people with Alzheimer's disease and other forms of dementia; some forms of inflammatory bowel disease also seem to improve with smoking (e.g., Doll et al., 2000). Despite raging scientific controversies over possible benefits, there were just a few newspaper stories on the issue. Significantly, the claims about positive effects of smoke were treated in an incredulous and mocking fashion.

All of the stories on secondhand smoke were examined, and the results revealed a strikingly one-sided discourse consistent with self-silencing by the media. Specifically, out of more than 500 articles examined, fewer than 10 afforded *any* sense of either scientific uncertainty or of negative findings challenging the prevailing consensus. The huge remainder disregard the conventions of balancing and controversy (allowing at best a short paragraph to smoking defenders), and in place of these media staples presented a dutiful and credulous account of the dangers of passive smoke. Thus a recent British report presented at a conference of the Royal Society of Physicians in London on 17 May 2004 garnered the following headlines in the British media (*New Scientist*, 2004):

Passive smoking numbers shock

Passive smoking kills one bar worker a week

Passive smoking is workplace killer

Passive-smoking survey reveals startling death rate

Cost of Passive Smoking on Barmaids and Waiters

Dying for a passive cigarette

One person per week dies in British hospitality industry from . . .

And while the numbers cited in the headlines suggest an exaggerated exactitude (numbers are estimates derived from combining several disparate data sets and an epidemiological model), the non-expert partisans who attacked the BMJ smoking article in the rapid

responses hit the mark. The media discourse on secondhand smoke is self-silenced, largely because the media perceive NO controversy and hold that the jury is IN.

6. Conclusion

This investigation of the career of the smoking article was somewhat serendipitous. What was to be an examination of rapid responses led us to the media and tobacco industry coverage of the smoking article, as partisans worried that the results would be used to stymie public health efforts. The relative paucity and strong imbalance of the coverage of the smoking article led us to examine the media discourse on smoking in general. From the present perspective, our narrative has been developed backwards.

A realistic starting point is the cascading moral crusade to protect public health by policing smoking. Smokers, as ever-present persons who are killing themselves and killing or harming others, present an ideal moral and political target. The threat posed by these folk devils is understandable, visible and bothersome, fear inspiring, and, unlike many other threats, readily subject to social controls. Partisans are engaged in loosely connected rolling crusades, local skirmishes that can go regional or even national, as well as in international movements that continually ratchet up both anxieties and efforts at social control.

Partisans are allies of science, but only in so far as it furthers their crusades. Moral concerns—we are speaking of the deaths of innocent victims here—trump scientific truth seeking and partisans have no use or tolerance for conflicting results or scientific doubts. Their TRUTH has been proved beyond any possible doubt, and any revisionism is clearly in error and cannot be tolerated since it might impede their life-saving campaigns. This moral imperative appears to have generalized to public arenas, particularly the media, where the harm attributed to smoking is simply a given that authorizes efforts to police it. Hence discourse can deal with the mechanisms or means of protecting people from side-stream smoke; but the prior question of the need to do so is hardly intelligible.

Then the BMJ, in pursuit of good science, published the smoking article. But an inflammatory headline by this high status journal, coupled with the historic significance of this long-term study commenced by the American Cancer Society, led partisans to vent their wrath on the relatively obscure BMJ Web site. In this regard, it is significant that no newspaper story covered the rapid responses themselves (they make a remarkable read), again suggesting self-silencing about a skirmish replete with personalized and readily balanced conflict. In the same vein, partisan fears of media coverage were clearly exaggerated. It is surprising, and an open question as to *why* the partisans attacking the BMJ did not appreciate the extent to which media self-silencing prevails around the issue of secondhand smoke. A further question that our data do not address is whether the rapid attack on the journal and editor will render editors more circumspect in the future.

For partisans, self-silencing, with its small footprint, is obviously more desirable than public silencing skirmishes. Drug companies, claiming proprietary rights over their research, have also been found to withhold or provide minimal publicity to negative findings. But rebellious scientists, journals, and regulatory agencies seek to pry open the research record, creating the possibility of public skirmishes that often end up in the courts. Overall, there are a number of reasons to expect that silencing skirmishes will become more frequent and extreme.

The growth of big science, with the increasing funding of research by interested organizations, exacerbates conflicting interests and the scope of scientific controversies. If partisans don't like the findings—or, more to the point, regard them as unthinkable and

intolerable—they can try to pry open the biases of the funding agencies or the researchers. Big science is also increasingly tied to social policy and risk decisions, rendering its findings of great concern to a wide range of interested parties. Effectively, different groups are seeking to claim ownership over particular Truths, and science is now a central factor in sustaining their versions of reality. Underwritten by strong moral concerns, these white knights tilt at windmills of “error.” Silencing skirmishes—partisans trying to mute certain results and others trying to pry them open—are likely to increase in frequency and intensity.

As this is being written, the FDA decision to bar its top expert from testifying about antidepressants and childhood suicides has already had a series of implications. Specifically, the New York State attorney general has brought a civil law suit against GlaxoSmithKline for concealing negative information about the effects of its antidepressant medicine Paxil on adolescents. In response, the company is posting the unpublished test data on its Web site. At the same time, the FDA has commissioned a review of the effects of antidepressants, while the International Committee of Medical Journal Editors is considering a proposal that would require drug makers to register clinical trials at their start in a public database (Harris, 2004b; Meier, 2004). The dynamics of these skirmishes form a fascinating and significant research topic.

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Notes

- 1 “BMA Turns Tabloid,” 20 May 2003. The BMJ rapid response site on the Internet is: <http://bmj.bmjournals.com/cgi/eletters/326/7398/1057£33222>. As a result of the number of (often brief) citations to these rapid responses, they will be noted in the text without specific references.
- 2 Richard Smith, editor of the BMJ, in his rapid response (“From Hero to Pariah in One Easy Jump,” 18 May 2003), refers to the journal’s Editorial Advisory Committee as “the hanging committee.” This bit of insider humor may be partly intended to offset criticism, but also reflects a publication bias of elite journals. Maverick scientists will generally be compelled to publish in ostensibly second-rate journals, a process of marginalization that may or may not be fixed.
- 3 Note that two rapid responses from mid July, one from August, four from September and 12 from October until January 2004 are not shown on the diagram. All these aforementioned responses focus on technical issues pertaining to the research and are not, like many of the early ones, emotionally charged. The significance of the 158 total rapid responses is reflected in reports indicating that the average scientific paper attracts about five readers and no public attention.
- 4 A distinction can be drawn between newspaper coverage of the findings of the smoking article and coverage that is hijacked by peripheral issues. A rapid response of 19 August, “The Case of the Footnote Wagging the Article,” notes that a footnote in the smoking article suggesting that Enstrom and Kabat might have lost their funding from the Tobacco-Related Disease Research Program owing to the nature of their findings has taken on a life of its own. The implication is that these researchers were now forced to consort with the tobacco industry.
- 5 Our results ignore radio and television coverage. Replies to our rapid response request to the BMJ mention coverage in about a dozen radio and television broadcasts. There is no evidence of any ongoing coverage and hence this is likely to create the same problem regarding agenda setting discussed below.
- 6 The Web sites are: <http://www.bat.com>, <http://www.philipmorrisoninternational.com> and http://www.brownandwilliamson.com/Index_sub2.cfm?ID=16.

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