

STS and Researcher Intervention Strategies

BRIAN MARTIN¹

University of Wollongong

Abstract

When I learned about a concerted campaign against Australian vaccination critics, I decided to intervene in the debate. As a result, some proponents of vaccination turned on me, making abusive comments and complaining to university officials. At several points in this experience, I had to make choices about how to intervene or respond. STS perspectives offered valuable insights for understanding the dynamics of the controversy but provided little guidance for making decisions. Some reasons are offered for why STS lacks tools for guiding practical action in such situations.

Keywords

STS methodology; controversy; vaccination; engagement; dissent

Introduction

I've been thinking and writing from an STS perspective for decades. One of my special interests is public scientific controversies such as over nuclear power, fluoridation, and pesticides (Martin 2014a: 443–448). STS concepts, such as “boundary work” (Gieryn 1999), the role of interests in shaping scientific knowledge (Barnes 1977), and “undone science” (Hess 2006), are valuable in understanding the dynamics of controversies, and there are many insightful case studies (Kleinman et al. 2005, 2008, 2010).

In 2010, when I first became involved in the Australian vaccination debate, I found STS concepts quite useful for understanding the controversy. But I encountered an aspect of the debate for which STS guidance was limited: how to respond to attacks and, more generally, how to proceed when intervening in the debate itself. For example, I needed to decide whether and how to respond to comments like this:

Yep, that's why I told Martin to fuck off; I don't deal with liars. I pay less attention to him than the dog turd under my shoe. (McLeod 2014)

You're a disgrace Brian Martin. (Zammit 2016)

¹Brian Martin, Email: bmartin@uow.edu.au

It might be argued that STS is about understanding, not about intervening in the arena being studied, but this is a narrow view. Methodology is important for all social researchers, including STS researchers. If intervening is one research method, then STS, or at least social science more generally, should offer some guidance, just as it does for undertaking discourse analysis, historiography, or policy advice.

In the next section, I outline facets of the Australian vaccination debate and my involvement in it. I then recount four episodes in which I was faced with decisions about how to proceed, specifically how to respond to attacks. In each of these episodes, I automatically searched my STS-related knowledge and experience for guidance, but found it wanting and, therefore, drew on other perspectives for making a choice. I then canvass some reasons why STS lacks adequate tools for interveners.

An Australian Vaccination Struggle

In 2010, I was contacted by Meryl Dorey of the Australian Vaccination Network (AVN),² a citizens' group critical of government vaccination policy and practice. She told me about attacks on the AVN by pro-vaccinationists and provided documentation. I had never before heard of such a serious and sustained attack on a citizens' organization that was only providing information about a contentious issue. I decided to become involved to defend free speech by the AVN. It was also an opportunity to study a fierce scientific controversy as it proceeded—a research opportunity.

This issue intrigued me in part because of my long-standing interest in free speech, including cases in which scientists suffer adverse actions—such as censorship and denial of tenure—for doing research or teaching or speaking out in ways that challenge the views of powerful groups (Martin et al. 1986; see also Moran 1998; Nocella et al. 2010). This phenomenon I called “suppression of dissent” (Martin 1999). It intersects with scientific controversies when scientists, doctors, or dentists are censored, denied research grants, reprimanded, ostracized, transferred, deregistered, or dismissed. Most such adverse actions are taken against critics of the view backed by governments, corporations, or professions (Martin 1999). However, in the Australian vaccination debate, citizen campaigners were the primary targets.

Nearly all health authorities endorse vaccination against infectious diseases as one of the medical profession's greatest contributions to human health (Andre et al. 2008; Offit and Bell 2003). Vaccination is seen as a safe and effective way to reduce the risk of disease. As new vaccines are developed and tested, they are added to the vaccination schedule.

Vaccination has been subject to controversy from its earliest days. Critics say vaccination is not as effective as claimed and that there is a significant risk of adverse reactions to vaccines (Habakus and Holland 2011; Halvorsen 2007). However, the critics seem to have had only a limited impact on the push for universal vaccination for diseases.

Dorey set up the AVN in 1994, after her son experienced adverse reactions to vaccines. It gradually developed to become the largest organization in Australia critical of

² In 2014, the group was forced by a government agency to change its name, which it did, to the Australian Vaccination-skeptics Network, retaining the abbreviation AVN.

vaccination, with some 2000 members, a major website, and a magazine titled *Living Wisdom*. The magazine covered a range of issues in holistic health, not just vaccination.

The AVN proceeded with its activities without any significant problems until 2009, when another group was set up: Stop the Australian Vaccination Network, or SAVN,³ whose stated aim was to shut down the AVN. The primary presence of SAVN was a *Facebook* page, eventually having thousands of “friends.” SAVNers and others attacked the AVN in various ways (Martin 2011a, 2012a, 2015a, 2015b), including the following.

- SAVN made unsupported claims about the AVN, most notably that the AVN believed in a global conspiracy to implant mind-control chips via vaccination. (This claim has since been modified.)
- SAVNers posted abusive comments about the AVN and especially about Dorey. SAVNers took screen shots from the AVN’s blog, posted them on SAVN’s page and made fun of them.
- SAVNers made dozens of complaints about the AVN to government bodies.
- When Dorey arranged to give public talks, SAVNers wrote to the venues hosting the talks, making derogatory claims about her, with the aim of having the talks cancelled.
- Another pro-vaccination group, Vaccination Advice and Information Service, posted a “Hall of Shame” with names and addresses of individuals and businesses that had advertised in the AVN’s magazine *Living Wisdom*, seemingly inviting harassment.
- Some individuals sent pornographic images, by post and email, to Dorey and others in the AVN.
- Dorey received threats over the phone.

In each of following four sections, I recount an episode in which I had to make decisions about what to do. In each one I describe options I considered and the relevance of STS insights for deciding what to do and how. Other stories could be told, for example about threats of legal action, criticisms of my capabilities as a supervisor, a *YouTube* video containing screen shots from my writings and various references to lying, and a document pinned to the door of my office (a photo of which was posted online). The four episodes are illustrative rather than exhaustive.

Episode 1: Whether and How to Intervene

The first question I had to address was whether to intervene in the debate; closely related to this was the question of how to intervene. There are dozens of scientific and other controversies that could be investigated, not to mention pressing social problems such as poverty and war. STS does not provide much guidance on choosing priorities for research or

³SAVN’s *Facebook* page now gives its name as Stop the Australian (Anti)Vaccination Network.

social action, except for the vague criterion that areas be “interesting,” which usually means personally of interest and relevant to intellectual agendas in the field. For me, making a contribution to STS was less important than my concern over free speech. I judged that with my experience in studying controversies and my involvement with free-speech issues, I could make a useful intervention to this particular issue. Furthermore, because of the rich body of freely available information about the SAVN-versus-AVN struggle, it was also an intellectual opportunity, though I could not easily foresee where it might lead me.

Having decided to intervene, the next question was how. My intent was to support free speech, which meant countering SAVN’s censorship agenda. I had neither the commitment nor a particular interest in addressing the substantive issues about vaccination that were the preoccupation of both the AVN and SAVN. So my intervention, as I planned it, should be to contribute to a greater understanding of the dynamics of the SAVN-versus-AVN struggle, very much an STS-inspired objective. Given my background, I decided to write something. Other possibilities would have been to undertake interviews, give talks, and help build support networks.

I knew from previous experience (Scott et al. 1990) that any attempt to undertake a symmetrical analysis of the struggle would be welcomed by the AVN and resented by SAVN. However, my purpose was not simply to analyze the debate but rather to offer insights for resisting attacks on free speech. For this, I decided to explain the dynamics of scientific controversies with special attention to vaccination, to document SAVN’s methods of attack, and to outline ways of resisting.

Linked with the decision about what to write were choices about style, audience, and publication venue. I considered writing for an academic journal; an STS journal would have been most appropriate. However, for the purposes of intervention in an ongoing debate, academic articles have several disadvantages: they can involve a lengthy wait for publication, they are restricted in length and format, and, most seriously, they usually involve a style many non-academics find unappealing. For these reasons, I decided that my first piece of writing should not be for an academic journal, but rather written in a more accessible style aimed at members of the AVN and others interested in the vaccination issue. The resulting article, “Debating vaccination” (Martin 2011a), was about 20,000 words long, and included a major section covering STS perspectives on scientific controversies.

Next was the question of where to publish this article. Once upon a time, I might have been able to publish it in an internal working paper series, but none existed in my faculty or unit at the time. I could have taken the trouble to establish a new working paper series. This would have given greater institutional credibility to the article, with the apparent imprimatur of the university. In retrospect, this might have been a better option, though it would have meant that SAVNers would have questioned the decision-making process leading to publication.

Another option was to post the article on my website. However, after Meryl Dorey offered to publish the article in the AVN’s magazine *Living Wisdom*, this was the option I chose. It had the advantage of getting the article to AVN subscribers. As well, I posted the article on my website.

⁴ STS research agendas can be influenced by many factors, such as class, gender, funding opportunities, institutional imperatives, personal networks, and career trajectories. For one approach to a sociology of STS knowledge in the US, see Hess (2011).

In this way, I began my intervention into the SAVN-versus-AVN struggle within the Australian vaccination debate. STS was important in offering insights about scientific controversies that I canvassed in my article. However, within STS there was little to guide my choices about whether to intervene and, if so, with what content, style, and venue.

Episode 2: Responding to Abuse

After publication of “Debating vaccination” in *Living Wisdom*, I came under attack by SAVNers. One common technique was to make derogatory comments on social media, most commonly on the SAVN *Facebook* page, on blogs by individual SAVNers, and on *Twitter*.

For example, Graeme Hanigan posted the following on SAVN’s *Facebook* page (18 April 2011) and also emailed it to me.

I will keep this short. [...] I must say, for a person with such impressive qualifications, it’s a mystery to me as to how your [sic] capable of producing a piece of slack jawed intellectualism that is indistinguishable from complete and utter rubbish. You pretend to be a dissident whistle blower, but have chosen do [sic] no more than read the script provided by the quacks and fanatics that make up the anti vaccination lobby and will no doubt dismiss my comments as being a part of your favourite new world order conspiracy theory de jour.

Dave Singer, referring to my assessment of the weakness of SAVN’s claims about the AVN’s belief in a global conspiracy, commented on 19 April 2011:

I’d be embarrassed for a schoolkid that lazy or stupid. For a professional scholar, it’s gobsmacking. What a moron.

Martin Smith commented on 19 April:

It’s terrifying to think that such intellectual sloppiness could come from a professor of humanities. He is supposed to be teaching the next generations of sociologists. ... Hmm I don’t know about terrifying but certainly not unexpected. He’s an idiot.

On 21 April 2011, a video was posted on *YouTube* with the following comment.

A quick look at recent lies, plagiarism and deception we’ve come to know and love from Meryl Dorey of antivaccination lobbyist fame. Meryl has attracted the interest of conspiracy theorist and non-health-faculty sociologist, Mr. Brian Martin. Brian is a doctor on paper yet seems intent on plunging from the window sill of academic integrity. One awaits the University of Wollongong to assuage the concerns of parents, families and Australian Government health authorities that such unconscionable conduct at the hand of dreamer Martin, is not the norm for this university.

The question at the time for me was, “Should I reply and, if so, how?” I knew from my studies of controversies that some partisans make derogatory comments about anyone considered an opponent. Furthermore, because I was taking a stand against SAVN’s methods, it was predictable that SAVNers would attack me. However, these understandings from STS provided little guidance concerning whether to respond and how to do so.

My decision was based not on STS insights but on my studies of how injustice can backfire. To emails, I replied politely, addressing the issues, following my own advice on responding to criticisms (Martin 2012b). To derogatory comments on *Facebook* and blogs, I responded by putting a comment on my website in which I itemized examples of abusive comment and concluded with this assessment.

Then there were the criticisms of me personally. This is exactly the sort of response I described in my article “Debating vaccination.” I outlined how those who do something others could perceive as unjust may use various techniques that minimise outrage, including devaluing the target and using intimidation. Those who attack the AVN have used devaluation and intimidation extensively. Because I challenged the goal and methods used by the attackers, some members of SAVN have also tried those very same techniques against me. Others can judge whether these tactics have been effective (Martin 2011b).

Among the derogatory comments made by SAVNers, a few are of special interest in relation to STS: they are criticisms of constructivism. For example, Rohan James Gaiswinkler wrote about me on the SAVN Facebook page,

I am confident he is in a permanent state of absolute refutation of the existence of absolutes. That’s par for the course for an academic with chronic PMS (post-modern sophism).

Such comments can readily be understood as reflecting a standard positivist position. I had a few options: ignore these sorts of comments, provide a rational response (for which STS provides ample tools), or reply in kind, with put-downs of ignorant commenters. In addition, in relation to the option of directly addressing the comments and the assumptions underlying them, I could have chosen to highlight my own authority as the author of numerous academic works on controversies. My choice was to ignore these comments; those commenting along these lines did not seem to be seeking an intellectual engagement.

Episode 3: Complaints to the University

In my article, “When public health debates become abusive” (Martin 2013), I quoted comments about Dorey posted on SAVN’s *Facebook* page, illustrating the abusive nature of SAVN commentary. SAVN’s page was open to the public, and thus the comments were in the public domain: they required no permission to be quoted. In academic work, it is considered legitimate to quote such material, as long as the quoted text is not misrepresented.

One of the SAVNers I quoted, Carol Calderwood, took a different view. After reading a draft I wrote in 2011, she was outraged that I had quoted her words on SAVN’s page without permission, and wrote to my head of school and the university vice-chancellor complaining. She did not contact me directly. My head of school gave me a copy of her email and invited my response.

The question for me at this point was, “Should I respond and, if so, how?” I could have declined to respond at all, responded only within the university, and/or directly responded to Calderwood. My decision was to write a careful response to Calderwood’s claims and send it to my head of school and the vice-chancellor. Furthermore, as a courtesy, I sent a copy to Calderwood, noting that complaining to a person’s boss, as she had done, is characteristic of attempts to suppress dissent. After I prepared a commentary about SAVNers’ responses to my article (Martin 2011b), I notified four of them, including Calderwood, about it.

She then claimed that by sending her these two emails, I was harassing her, and wrote a letter of complaint to the university. This was dealt with by the Director of Employment Equity and Diversity who, I am told, dismissed the complaint. STS does not provide any guidance on whether or how to respond to complaints to one’s employer.

Episode 4: Responding to a Media Story

My PhD student Judy Wilyman is a public campaigner critical of the Australian government’s vaccination policy, and hence has come under attack by SAVN over a period of years.³ One particular episode occurred after she attended a 2013 conference in San Francisco, where she presented her research on the HPV vaccine. Someone submitted a freedom-of-information request to the University of Wollongong for all documents relating to her conference attendance, for which Judy received some financial support from the university. After documents were released, a story by Rick Morton appeared in *The Australian*, a national daily newspaper, drawing to a limited extent on the documents obtained through FOI (Morton 2014). In my view, Morton’s story was highly misleading in a number of respects.

What should I do about a story in a national newspaper that attacked the credibility of two of my PhD students, and me as well? I considered ignoring the story, but decided that writing a response would be better, so the public record could be set straight. But what sort of response? I thought of writing a letter to the editor for publication in *The Australian*, but it would have been hard to explain what I believed were the shortcomings of Morton’s approach in a hundred words. So I decided to write a substantial analysis, nearly 5000 words long, describing the vaccination debate and the attacks on Judy and myself, and then addressing Morton’s text paragraph by paragraph. I sent a draft to a dozen colleagues and interested parties for comment, and then sent the response to Morton. He had no comments aside from asking that I give the web addresses of his articles, which are behind a paywall. I then posted my response on my website (Martin 2014b).

In writing this response to Morton’s article, I drew heavily on my knowledge about the politics of science. STS insights were crucial in enabling me to write this response, but it gave little guidance on whether to respond at all and, if so, the best way to go about it.

STS, Social Science, and Researcher Intervention

The preceding four episodes illustrate the dilemmas that can arise when intervening in a scientific controversy and encountering hostility. STS concepts were valuable for

³She graduated in December 2015. The responses by SAVNers and others are another story.

understanding the controversy but failed to provide much guidance for how to act in the circumstances. This might be said to reflect a gap in STS research methodology. Here, I offer some preliminary comments concerning both STS and social science that may help explain why this gap exists.

STS, like most of social science, is based on an implicit assumption that the goal of research is greater understanding, with an associated assumption that greater understanding is beneficial both for knowledge and for society. These assumptions are not peculiar to STS: they are common to social science, indeed to most intellectual inquiry.

Nicholas Maxwell (1984, 1992), a philosopher of science, diagnoses this approach as being a “philosophy of knowledge,” with epistemological goals being paramount. Similarly to the widely critiqued linear model of technological innovation as involving a sequence of research, development, demonstration, introduction, and diffusion (Rosenberg 1982), the philosophy of knowledge assumes that knowledge, if it is socially relevant, is the first step in a sequence that desirably ends in socially beneficial applications. Maxwell contrasts the philosophy of knowledge with what he calls the “philosophy of wisdom,” which involves prioritizing the study of areas of social importance (for example, poverty, peace, health, environment) without assuming that obtaining knowledge is the key goal in this study.

The dominance of the philosophy of knowledge is apparent in a wide range of areas. A distinctive example is the study of social movements. Although many scholars in this field are sympathetic to the movements they study, most of the research undertaken is *about* rather than *for* social movements: there have been substantial critiques of the academic orientation of social movement scholarship (Croteau et al. 2005; see also Hale 2008). Activists seldom find anything in the field they can directly apply, in part because scholars write in a style and in venues for other scholars and in part because the research seldom offers any insight new to activists that they can apply.

The dominance of the philosophy of knowledge is shown by the emphasis on social structures and high-level frameworks and the neglect of strategy and tactics. This emphasis has been challenged by James Jasper, who has championed the study of strategy:

My research on social movements showed me just how little social scientists have to say about strategy. Over the years many protesters have asked me what they might read to help them make better decisions. I had nothing to suggest, beyond Saul Alinsky. (Jasper, 2006, p. xii)

A simple example in STS relates to technological determinism, long subject to STS critique (Winner 1977; Smith and Marx 1994). Compared to the intellectual effort devoted to examining technological determinism, there has been relatively little study of how best to respond to comments and claims that implicitly adopt a determinist position, despite the prevalence of determinist assumptions in everyday and policy discourse. Dotson (2015) advocates STS research into counternarratives to technological determinism as one component of a wider program towards democratization of technology.

The formative years of the STS field coincided with the emergence of the radical science movement in the late 1960s and early 1970s, and in those early times there was significant crossover between STS and the movement. Yet in subsequent years STS as an academic field diverged from the activist impulse, in terms of subject matter and style

(Martin 1993), following Maxwell's philosophy of knowledge and largely ignoring the study of strategy. Although quite a few STS researchers, especially research students, maintain an active interest in and support for activism, this is not reflected in the leading journals or in the theoretical and methodological preoccupations in the field. A relatively new journal, *Interface: A Journal for and about Social Movements*, attempts to overcome this problem, but it has no special STS brief.

One avenue by which Maxwell's philosophy of wisdom could be applied to STS is through action research, especially participatory action research, as a research method (McIntyre 2008; Touraine 1981; Whyte 1991). Action research aims to link knowledge acquisition with support for social change, for example in research that supports efforts of citizens' groups. Some STS researchers have undertaken interventions in the arena being studied (Zuiderent-Jerak 2015).

The combination of a series of gaps and undeveloped areas within STS and social science more generally helps explain why STS offered me little guidance in my encounters in the vaccination debate. Social science has neglected the study of agency and strategy (Jasper 2006), action research and interventionist studies are low priority within STS, and the study of strategy has hardly ever been applied to the study of researcher strategies, in particular options to address pushback from groups threatened by STS researcher interventions.

The result of this absence is that STS offered little guidance when it came to making decisions about how to respond to attacks. The implication is that STS is good for undertaking analyses but less useful for guiding practical action.

Concluding Comments

Controversy studies is a long-standing specialty within STS, offering many insights about the dynamics of knowledge and power in contentious public debates. As such, STS provided me with intellectual tools for intervening in the debate in an informed fashion, most notably when writing articles. In addition, quite a few STS and other social science colleagues from different parts of the world provided valuable feedback on drafts of my articles. The STS field provided an extremely useful platform for what I wanted to say.

However, STS was of limited value for helping to make choices that arose due to my intervention in the Australian vaccination controversy. Intervening in a scientific controversy can be a potent means for gaining insights that are hard to obtain otherwise, but so far there is little guidance from STS, or social science more generally, on dealing with the practicalities of engagement, namely with the methodology of intervention.

I have learned, through reading, discussions, and practical experience, that interveners need to be prepared for pushback, including verbal abuse and formal complaints, from groups adversely affected by critical comment. These sorts of responses are not normally encountered in the usual round of scholarly activities, so it is wise to seek advice and support from outside the usual academic channels. Rather than being afraid of threats, abuse, and complaints, these can be reframed as a way of learning more about the dynamics of the issue. Reading about an issue can provide insights, and interviews can give even more, but for a gut-level appreciation of what is going on, it is hard to match becoming a target or being caught in the crossfire of debate. You may need to rethink your relationship with the

issue, becoming a participant or intervener rather than an outside observer. This may lead to a loss of some research opportunities, with compensating gains.

The wider challenge is gaining insight into strategies for STS researchers themselves, as well as activists and others who are the subject of STS investigations. The starting point is to engage more generally with the study of strategy (Jasper 2006), and apply insights to struggles over science and technology. Some progress in doing this can be made by studying cases from the outside, using documents and interviews; progress will also come from experimentation, for example involvement in debates and testing of methods to pursue agendas or respond to pushback. Whether insights about strategy in typical STS domains are significantly different from those in other fields, such as psychology or peace studies, remains to be seen. Undoubtedly there are commonalities in power dynamics. It would be useful to study whether there are special features of the social role of science and technology that affect researcher intervention strategies.

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