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Cite this as: *BMJ* 2021;374:n1888

<http://dx.doi.org/10.1136/bmj.n1888>

Published: 24 August 2021

ESSAY

Polarisation, incivility, and scientific debate during covid-19—an essay by Agnes Arnold-Forster

Over the course of the covid-19 pandemic, scientific debate has become increasingly polarised and politicised. Rather than being a new cultural moment, **Agnes Arnold-Forster** argues that anger, incivility, and unprofessional conduct have always played a part in topical scientific debates

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The past 18 months have been bizarre and unprecedented. It has been an unusual time for the production of new scientific, medical, and public health knowledge. The pandemic has accelerated our understanding of coronaviruses, transformed our appreciation of effective disease containment strategies, and catapulted our ability to develop effective vaccines in contracted timescales.

So it is somewhat unsurprising that we have also witnessed increasing polarisation in the world of scientific debate. The information available to people has changed rapidly, new evidence has emerged, and alternative interpretations of that evidence have proliferated. In response, the gulf between practitioners with different ideas, predictions, and proposed interventions has widened.

In some ways, this is just the business of science and medicine, albeit with the stakes elevated, affected populations expanded, and timeframes compressed. Science is supposed to be progressive, and it is supposed to be accumulative. Robust debate, concerted intellectual effort, and the rapid acquisition of new evidence are signs of a healthy scientific community.

The tenor and tone of debate over the course of the pandemic has, for many people, been disappointing. In March of this year, *The BMJ* published an editorial that decried the “erosion in civility” among scientists, researchers, and healthcare professionals during the covid-19 pandemic.¹ The authors argued that personal attacks and unprofessional communications on social and mainstream media were reducing public trust in experts and damaging their reputation.

Debate has become, in some cases, personal and aggressive—an outlet for intense anger and frustration rather than a productive conduit for improved understanding and policy making. Critics lament the unprofessional nature of many of the very public disagreements that have played out during the pandemic.² Take, for example, the controversy and high feeling that surrounded the Great Barrington Declaration, which advocated “focused protection” in response to the pandemic, rather than population-wide lockdowns. The authors, three public health experts from Harvard, Stanford, and Oxford, have all become targets for abuse, accusations of pseudoscience, efforts to undermine their professional and academic credentials, and the

insinuation that they are affiliated to or financed by right wing lobbyists.³

This is not just a case of impolite conduct or unprofessional styles of communication. Many of these disagreements have also been profoundly politicised. A recent article in the *Atlantic* described the fraught nature of covid-19 debate in the United States, where support for continuing, arguably scientifically unjustifiable, restrictions is as much about liberal political identity and opposition to the immediate past president, Donald Trump, as it is about effective public health policies. As one *BMJ Opinion* piece put it, Trump’s apparent “disdain for science” framed his rival’s response to covid-19 as “essentially a political question.”

It is tempting to see this debate landscape, and the tone of public discourse, as a product of a newly combustible political moment, fuelled by the advent and expansion of social media. After all, it is not just science and medicine that have been increasingly polarised. Trump, quasi-authoritarian regimes in Brazil and elsewhere, the rise of the far right, as well as fraught left wing opposition, have all colluded to make the world seem newly divided. Social media is also a relatively new variable. For all its benefits, it allows anger to hide behind a mask of relative anonymity and seems to cultivate a combative culture between people with even only marginally different views or perspectives.⁴

But the history of science, medicine, and politics reveals much more continuity than dramatic change. This is not the first pandemic, nor is it the first time that politics has been tense and emotive. Incivility in medical debate is also not new.

Civility in the history of medicine

Critics of the way healthcare professionals and scientists communicate today tend to posit a declinist model of civility. They imply that there was once a time when everyone spoke to one another with respect—an imagined age of medical politeness that has since evaporated. Yet, you do not need to spend much time in the archives of medical journals to see that incivility was neither invented nor even exacerbated by the 21st century. By contrast, disdain and ridicule for professional colleagues have always been part of the fabric of research and clinical practice and have played crucial, constitutive roles in the making of the medical profession.

At the beginning of the 19th century, a diverse array of practitioners with varying degrees of education, experience, authority, and public respect operated alongside one another in what historians call a “medical marketplace.” These practitioners competed for business and patients, and they publicly contested knowledge about health, disease, and effective treatments. This was not a medical profession as we know it now, and medical men (and to a lesser extent women) engaged in a concerted “public relations” campaign over the course of the 19th century to produce a coherent community of recognised and respected practitioners, subject to internal and external regulation.

Very little of this regulation was enacted by governments. Instead, doctors regulated each other in the public arena. They used the written word, and specifically medical journals, in their professionalisation project. The tenor of these published disputes and debates made 19th century medicine a fraught place to be, and reading medical journals of the time—including *The BMJ*—is a lesson in biting critique, sassy take downs, highly personal rebuttals, and withering dismissal. There was little civility in the letters pages of Victorian medical journals.

In a debate over potentially dubious credentials being granted by the London College of Medicine in 1842, a doctor wrote to the *Provincial Medical and Surgical Journal* to call his opponent’s arguments “a vapid and flimsy tissue of words,” suggesting that the man’s brain, “must have been sadly clouded.” He accused him of “suppression” and of making “false assertions.” In a similar tone, the rival had called the original writer “defeated” and “a crestfallen practitioner.”

The founding editor of the *Lancet*, Thomas Wakley, offers perhaps the best examples of 19th century medical incivility. He deliberately published libellous, scandalous, and provocative material, including a series of exposés entitled “hole and corner surgery.” He described three eminent practitioners as “the three ninny-hammers”; claimed that the liver of another respected surgeon would, on autopsy, be found in the man’s head; and accused rival journals of emitting “a little foetor.”⁵

Later in the century, the *Lancet* even accused the Middlesex Hospital—a reputable institution—of quackery, suggesting that a trial it was undertaking to test an experimental treatment for cancer was being concealed in a “secret chamber” because there was “nothing worth seeing.”⁶ The journal also criticised the hospital’s doctors for basing their efforts on unsound science and diminished their motivations, implying nefarious designs.

A decade or so later, the *BMJ*’s editorial staff levied similar scathing critique at the Cancer Hospital (later the Royal Marsden) over its published mortality rates. Among most orthodox practitioners in the mid-19th century, the consensus remained that cancer was an incurable disease that could be treated into remission and remain at bay for months or years, but would inevitably return. Instead, doctors intervened only to palliate suffering and lengthen life.⁷

In 1873, the hospital published its statistics and reported that, of the 796 patients it had treated that year, 54 had been discharged “cured.” The hospital noted, “The possibility of curing [cancer] by a combination of local and constitutional remedies, we believe to be fully established.” *The BMJ* sarcastically referred to this as a “novel statement” and dismissed the hospital’s claims: “We should regard it as a miracle that 50 or 60 patients a year are cured of cancer . . . there is not a single competent member of the profession who knows anything of the matter.”⁸

Of course, just because sarcasm and dismissal have been part of medical debate for centuries does not mean it should continue. But it is worth recognising that robust debate was part of the process of medical professionalisation and played a key role in the demarcation of boundaries between orthodoxy and heterodoxy.

Debates about medicine have always been about more than just science and the verification of “facts.” Wakley, for example, did not simply intend to offend his rivals. Instead, his goals were political. He attacked and undermined the elite physicians who he saw as nepotistic, avaricious, and self-interested. He established both himself and the *Lancet* as potent political agents with power and influence over popular debate and medical practice alike.⁹

Throughout the 19th century, medical debates over competing explanatory mechanisms (germ theories or miasmas), methods for disease control (quarantine or sewage systems), and the ethics and efficacy of government intervention (the Contagious Diseases Act, for example) were framed in political terms, influenced by political affiliations, and interpreted according to varying social and cultural contexts.

As German physician and pathologist Rudolf Virchow observed, “Medicine is a social science, and politics is nothing else but medicine on a large scale.”¹⁰ Almost 200 years later, this remains true. In 2019, the current editor of the *Lancet* pushed back against a principle that he knew some of his readers held dear: “that science and politics do not mix, and certainly should not be mixed in the pages of a medical journal.” By contrast, he argued that science and politics are mutually reinforcing, and that we should avoid thinking of the two as “separate activities.”¹¹

Reflections

We can learn several lessons from this history of science and medicine. It shows that incivility is part of the fabric of medical professionalism, that clinical and scientific debate has been polarised, contested, and emotive for centuries, and that the tenor of the current discourse is not a product of the covid-19 pandemic.

Doctors have always been rude to each other, even when that rudeness is masked by Victorian rhetorical flourishes. Those seeking a “golden age” of civility and medical politeness will be left searching for something that is as much a nostalgic or aspirational fiction as it is a historical reality. That does not mean, of course, that abuse, slander, or slurs are acceptable or appropriate. The long history of the profession should prompt current practitioners to ask what it is about medicine and its norms that engender such a combative and oppositional culture. In this way, history should promote a reconsideration of the political nature of medicine at a more fundamental level.

Social and mainstream media are littered with pleas to take politics out of research, and the UK government has repeatedly insisted that its covid-19 policies will “follow the science.” These are laudable aims, but they are arguably futile endeavours. As any researcher knows, science rarely makes clear, indisputable instructions. And, as shown by the past 18 months, even questions as seemingly benign and uncontroversial as mask wearing can become deeply embroiled in political rivalries and serve to shore up or fracture identities.

The history of medicine makes it clear that doctors cannot divest themselves of political responsibility, nor is it possible for science to be conducted, applied, or “followed” in a vacuum. This may seem fatalistic, or unscientific, but instead of denying the emotional, cultural, and political nature of medicine and scientific research, we might be in a better, more productive, position if we invite

healthcare professionals to lean towards politics rather than turn away.

Scientists and healthcare professionals need to better appreciate the social and political contexts of medicine and to understand that politics shapes not just the application, but the production of scientific knowledge. To do so effectively requires not just an acknowledgment of the inextricable ties between science and culture, but help from other experts. As Giampaolo Ghilardi and colleagues wrote in a letter to the *Lancet* in early 2020, “Medical humanities (including politics . . .) are not just an embellishment. They are a baggage of competencies necessary for science.”¹² Public health, science communication, sociology, anthropology, even history, can all assist scientists and doctors in their navigation of these sometimes treacherous waters.

The covid-19 pandemic did not make medicine political or polarising, but it did make these aspects of the profession and its practice evident to more people. This is a troubling realisation for some, but it need not be. The past 18 months offer scientists and healthcare professionals an opportunity to reconsider their relationship to politics and society and develop their abilities to engage productively with patients, policy makers, and the public.

Biography

Agnes Arnold-Forster is a historian of science, medicine, and healthcare based in the Social Studies of Medicine Department at McGill University. She has a PhD in modern history from King's College London. Her first book, *The Cancer Problem: Malignancy in Nineteenth-Century Britain*, was published by Oxford University Press in 2021, and she is currently co-principal investigator on the Wellcome Trust funded project Healthy Scepticism.

Provenance and peer review: Commissioned; not externally peer reviewed.

Competing interests: I have read and understood BMJ policy on conflicts of interest and declare the following: None.

- 1 Bhopal R, Munro APS. Scholarly communications harmed by covid-19. *BMJ* 2021;372:n742. doi: 10.1136/bmj.n742 pmid: 33753356
- 2 Hoffman JR, Heath I, De Fiore L. An open plea for dignity and respect in science. *BMJ Opinion* Mar 2021. <https://blogs.bmj.com/bmj/2021/03/22/an-open-plea-for-dignity-and-respect-in-science/>
- 3 Clarke L. Why scientists fear the “toxic” covid-19 debate. *New Statesman* Oct 2020. <https://www.newstatesman.com/science-tech/coronavirus/2020/10/why-scientists-fear-toxic-covid-19-debate>
- 4 Wollebaek DKR, Steen-Johnsen K, Enjolras B. Anger, fear, and echo chambers: the emotional basis for online behavior. *Soc Media Soc* 2020. doi: 10.1177/2056305119829859
- 5 Bynum WF. *The Lancet: the first to last*. *Lancet* 1998;352(suppl 2):S3-6. doi: 10.1016/S0140-6736(98)90291-4 pmid: 9798637
- 6 Secret surgery, and the “mystery men” of the Middlesex. *Lancet* 1857;69:358. doi: 10.1016/S0140-6736(02)20869-7
- 7 Arnold-Forster A. *The cancer problem: malignancy in nineteenth-century Britain*. Oxford University Press, 2021. doi: 10.1093/oso/9780198866145.001.0001
- 8 Cancer cures. *Br Med J* 1873;1:650-1. pmid: 20765550
- 9 Brown M. ‘Bats, Rats and Barristers’: *The Lancet*, libel and the radical stylistics of early nineteenth-century English medicine. *Soc Hist* 2014;39:182-209. doi: 10.1080/03071022.2014.905277 pmid: 25937694
- 10 Taylor R, Rieger A. Medicine as social science: Rudolf Virchow on the typhus epidemic in Upper Silesia. *Int J Health Serv* 1985;15:547-59. doi: 10.2190/XX9V-ACD4-KUXD-COE5 pmid: 3908347
- 11 Horton R. Offline: The necessity of the engaged scientist. *Lancet* 2019;394:1398. doi: 10.1016/S0140-6736(19)32462-6 pmid: 31631843
- 12 Ghilardi G, Campanozzi LL, Ciccozzi M, Ricci G, Tambone V. The political nature of medicine. *Lancet* 2020;395:1340-1. doi: 10.1016/S0140-6736(20)30168-9 pmid: 32334696

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