Op-Ed

Rethinking Science and Politics

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JUST AS RELIGIONS SEPARATE THE SACRED FROM THE PROFANE, many people separate science from politics. Science is a calling defined by the search for truth, using reproducible evidence, whereas politics is a vocation fully engaged in the messy circumstances and compromises of the real world. Such a binary divide suggests the importance of keeping politics out of science—in other words, letting experts define a policy to achieve an important health objective and then expecting that the political process will support and implement it.

This simple and seemingly persuasive framework, however, cannot overcome 3 major challenges in practice.

First, science often cannot determine whether there is enough evidence to justify a policy. In the fall of 2009, for example, the US Food and Drug Administration (FDA) began to examine the safety of a new type of food: caffeinated alcoholic beverages. From the outset, there was a clear basis for concern, as the products combined several beers' worth of alcohol with several colas' worth of caffeine, risking harm from a state of "wide-awake drunk." Added to this were credible reports of alcohol poisoning, assault, and motor vehicle accidents associated with the use of caffeinated alcoholic beverages by adolescents and young adults. Leading outside experts, including public health officials, called for the FDA to remove these products from the market. It was clear to many that the time to act was short while the market for these products was dominated by small and politically weak companies and before powerful, large alcohol manufacturers began to make these combination beverages themselves.

Inside the FDA, however, there was debate over whether there was enough evidence to make a definitive decision. Even though everyone had the same concerns, some scientists proposed waiting for a multiyear study of the biological effects of caffeine before taking action. Instead, in November 2010, the agency sent warning letters to the manufacturers, which led directly to the removal of these beverages from the market.¹ This move was certainly justified scientifically, but the actual decision

to act was a judgment call supported by political appointees at the agency. Had the FDA followed the recommendations of its most cautious scientists, these risky products might still be widely available.

Second, some scientific and public health goals require political support and savvy to achieve. For example, about a decade ago, as health commissioner of Baltimore, I was faced with an increasing number of people experiencing homelessness who were dying in the cold of winter. As long as the problem was seen primarily as a health issue, we could not do much to help them. All our department could do was provide nursing and medical support and ask for assistance from other agencies and for communities to permit the opening of more shelters on cold nights.

But when the mayor jumped in to help, she did a lot more than support the health commissioner. She mobilized the housing authorities to provide emergency assistance and long-term vouchers, directed the police to increase patrols to support community shelters, and committed substantial resources to building a center to help people regain control over their lives.² In addition, she overcame the community's initial anger and frustration at meetings at which neighbors angrily opposed the temporary placement of an emergency shelter, telling them, as I recall, "I don't want people to die on the streets of my city."

Third, sometimes politicians' judgment may actually be better than scientists' judgment regarding the implementation of scientific and public health policies. Amid the panic over the possible spread of Ebola in the United States in 2014, a physician who had been exposed to Ebola in West Africa but who did not show any symptoms, returned home to our state. The state health department had to decide whether to quarantine him by force of law until the end of the 21-day incubation period.

We polled leading infectious disease experts both inside and outside the department. Some argued strongly in favor of a quarantine order, saying that it was the only way to gain public trust and that it was the only way we could establish a consistent policy over time. Others disagreed, saying that a quarantine order might send a message of distrust of health care workers, which in turn would fuel the fear of Ebola in the United States that was already spreading well beyond reason.

The governor resolved the question by asking the health department not to issue a quarantine order and instead to use the force of law only when it was really needed. Standing with our state's leading hospital

systems at an extended press conference, the governor explained our state's approach far more clearly and persuasively than those of us at the health department ever could. As a result, we gained the public's trust without having to issue a quarantine order.³

Rather than keeping science and politics apart, we should seek the effective alignment and mutual respect of the practitioners of each craft. Scientific considerations can define the problem and propose solutions. Political skill and power can adapt the solutions to the environment and implement them effectively.

To be clear, this alignment does not mean that anything goes in the interplay of science and politics. Political agendas that misrepresent facts risk the public's health. It is not difficult to find examples of politicians distorting science in favor of political positions on such topics as climate change, marijuana policy, reproductive health care, and gun safety. In the face of evidence suggesting a policy will harm the public's health, politicians should acknowledge the cost of the policy and, if they still support it, defend it on other grounds. Frequently, however, politicians choose to deny or distort evidence, thereby undermining the public's understanding of the trade-offs at stake.

When community leaders wrongly insist that gun control measures have never been shown to reduce violence, the public is less able to appreciate the likely benefits of proposed policies. Similarly, when politicians misstate the evidence regarding the risks to adolescents of liberalizing marijuana laws, the public is impeded from fully understanding the potential drawbacks of change.

Yet it is precisely because this type of political distortion of scientific evidence is so common that we need to rethink the ideal relationship between science and politics. When politicians misrepresent data, scientists generally respond in the language of science. Although this may convince those judging the exchange as a debate, it rarely reverses the public's misunderstanding and confusion. A presidential candidate in a debate watched by 25 million people who states that children receive too many vaccines cannot be effectively countered by footnoted editorials in scientific journals. Instead, another political leader must stand up and not only provide the right evidence but also support the expertise of leading public health organizations.

Scientists most often become involved in politics in order to support candidates who support their points of view. A broader strategy on behalf of science is also needed. Such a strategy should offer support to

politicians across the ideological spectrum who respect data and evidence and who support the alignment of politics and science. Engagement with politics is a wiser course than isolation. Some scientists will always believe that politics is a third rail that they should not touch and that should not touch them; over time, perhaps more will recognize that the third rail is where the power is.

References

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