

Public Reaction to EPA Report on Fracking Reveals a Fractured Society

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It keeps happening. A science-based report on hydraulic fracturing (fracking) has been released, and public reaction is polarized. In this case it's the EPA report on the impact of fracking on drinking water released last Thursday. Based on an exhaustive and objective assessment of existing studies, the report concluded that fracking has not caused widespread contamination of drinking water supplies. That's not to say that the process is without peril though. The report also detailed known risks and instances of previous contamination, and observations of important differences between locations where fracking is employed.

The report emphasized that the findings are based on an incomplete set of facts, and more data are needed to gain a more complete understanding. Regardless, the report was based on a large number of published reports and online datasets, providing a basis for the EPA to make a statement that we should all take seriously.

To frack or not to frack is one of the decisions that society makes that should be based largely on scientific research. We can credit many aspects of our modern way of life, from healthcare to computers to the comfort of our homes to the application of scientific understandings. In such cases, we accept the science without much fanfare, and enjoy the fruits that it brings. Maybe that's because it's easier to accept the fruits of research when they bring us comfort, or more to the point, when they validate our desires.

And when they don't?

The EPA report is, perhaps, a case in point. To those who paid attention, their reaction to the science in the report leaves much to be desired. And perhaps that's because, for those on both sides of the contentious debate over fracking, the study challenged narratives that have emerged over the past five years.

One gauge of the public's poor response has been the maelstrom of spin that some media outlets have imposed on the report. Some media outlets have claimed that the report shows that a clear link between fracking and water pollution. For example, the headline from Ecowatch.com was: "It's Official: EPA Says Fracking

Pollutes Drinking Water.” Other media outlets claimed exactly the opposite. For example, The Washington Times’s headline was “EPA: Fracking Doesn’t Harm Drinking Water.”

A second gauge has been on online message boards where debates have erupted. Reaction has been most skeptical by those opposed to fracking. Comments questioning the honesty of the EPA are not hard to find. On the other hand, proponents of fracking claim that their position is vindicated and that the process poses no threats. Again, neither reaction is appropriate considering the care by which the research for the report was conducted, as well as the nuance in the findings of the report itself. So rather than providing an easy yes/no answer, the report made a general claim that fracking does not cause widespread damage to surface waters, while detailing the risks that are present and recognizing that gaps in our knowledge remain.

Fracking is one part of a bigger puzzle as to how we best obtain and utilize energy while mitigating the potential – and in some instances inevitable harm to human health or to the environment. We are faced with significant choices that should be informed by ongoing science. The success of that process will depend on objective people making objective decisions based on the information provided. Part of the objectivity depends on being able to accept the information provided by the scientists, even if it contradicts one’s prior position on the issue. At the same time we must recognize that the information may have gaps – and can change depending on new findings. It also depends upon accepting that we have to build the infrastructure we need with the infrastructure we have, and that no large-scale energy production is environmentally harmless. Spin that recasts the findings of the study, ignores important realities inherent in all forms of energy production, or provides baseless questioning of the ethics of the scientists involved have no place in the debate. The public debate is currently characterized by vitriol and spin, and is largely informed by cherry-picked science. It’s also unproductive.

How do we get to a better place?

First, we must recognize that science-based conclusions rest on data. Journals are increasingly demanding that raw data be placed into publically accepted repositories, in case skeptical scientists want to repeat analyses made by authors. To that end, data relating to drinking water quality in gas development zones should be made available in a centralized, easily accessible data repository. Unfortunately, much of that information is viewed as being propriety by industry or private property owners. We must find ways to increase the availability of those data – at least to the broader scientific community – so that skeptics can crunch the numbers on their own.

Second, journalists and media outlets should strive to present fracking within the larger contexts of changing energy and climate systems, including how human consumption patterns drive energy demand. The amount of energy we use is

perhaps more important than where it comes from. Fracking is not the most critical issue in this larger and more important story.

Third, all stakeholders should attempt, as best as possible, to be aware of their own potential biases. As Aristotle famously said, "Knowing yourself is the beginning of all wisdom." Consider how frustrating it is to have a discussion with someone unwilling to admit that they might be incorrect. How might your thinking be incomplete or simply wrong?

Science helps us to understand how our energy system has made our modern way of life possible, and how that same energy system puts our way of life in peril. Decisions about changes to that energy system must be grounded in the best available evidence, even if it is incomplete. Forces that distort that information cloud our thinking and will likely lead us to decisions that we – or future generations – will come to regret.