



By Craig M. Pease

The Supremes Play “To Tell the Truth”

Many scientists have little regard for the law. This is rooted in the perception that the law is merely clever word games that play fast and loose with the truth — that lawyers and judges cite facts fitting their argument, while ignoring, contorting, or just flatly misstating those that do not. Of course, an attorney might respond that this is just good lawyering, framing of issues, and zealous advocacy. Reading the Supreme Court’s recent decision in *Michigan v. EPA*, I am struck by the Court’s games, bordering on outright dishonesty.

What the law calls facts, science calls data. And data are the bedrock foundation of science. Scientific theories, hypotheses, statistical analyses, and other interpretations of the data come and go. Yet any interpretation must conform to the data gained by experiment and observation. There is in science great reverence and respect for data, and especially for ensuring its veracity and integrity.

The factual and legal disputes in *Michigan* concern the costs and benefits of regulating mercury from coal-fired power plants, and the question of when in the regulatory process EPA considered these costs and benefits. The conservative majority prominently claims that benefits of “reduction in hazardous-air-pollutant emissions” are one one-thousandth the costs. The liberal minority

no less prominently claims that “the quantifiable benefits of [the] regulation would exceed the costs” by nine times.

Got that? How can some of the best legal minds in the United States look at exactly the same facts, and reach conclusions differing by a factor of nearly 10,000? The answer is not hard to find. Pursuant to Office of Information and Regulatory Affairs regulations, after writing this rule, EPA undertook a cost-benefit analysis, called a Regulatory Impact Analysis.

The Court majority implicitly cites to the benefits of reduced mercury consumption of children eating recreationally caught fish, clearly laid out by the RIA as de minimus. Importantly, the RIA, as is standard practice in cost-benefit analyses of air pollution control rules, then goes on to observe that the pollution control that the Mercury Rule requires will cause collateral reductions in small particulate matter emissions — even though this pollutant is not listed and regulated under the Hazardous Air Pollutant provisions of Clean Air Act Section 112 as is mercury, but rather is listed and regulated under a different section of the CAA.

The primary quantifiable benefit of the Mercury Rule is to reduce the harmful health impacts of small particulate matter air pollution, including deaths, heart attacks, cancer, bronchitis, and asthma, as compellingly demonstrated in the immense scientific literature by C. A. Pope and many others. The Court minority implicitly cites to the RIA’s analysis of the benefits of reduced small particulate matter emissions.

In science, though evidently not at the Supreme Court, anyone citing the RIA would be obliged to honestly describe both estimates, and not leave the reader to sort out the truth behind alleged facts that ap-

pear superficially to differ by some four orders of magnitude. Even if one is entirely honest, and brings to bear the best tools, knowledge, and collaborators, scientific data are complex, subtle, and difficult to interpret. Deliberate obfuscation takes what is intrinsically a difficult problem and makes it impossible.

Alas, the Supreme Court did not stop after playing this game of Hide and Seek with the truth. The Court then proceeds to play Simon Says with EPA. The crux of the majority ruling is that the agency failed to account for costs and benefits at the start of their regulatory process, before it made the initial “appropriate and necessary” finding. Rather, EPA undertook cost-benefit analyses during and after writing the rule, first implicitly when it set Maximum Achievable Control Technology standards, and second in the RIA. As in Simon Says, it is evidently not enough for EPA to undertake a thorough cost-benefit analysis, but the Court majority requires it be done at just the right step in the regulatory process.

Much has been written about biased scientific experts. But what of the problem of biased courts? To what end should scientists provide unbiased information to the courts, if the courts

themselves take those facts, cherry pick them, and then write blatantly biased descriptions of the facts, in support of their biased opinions?

If our courts are to provide any measure of justice in matters both technical and mundane, their decisions must be forthright, and hew to facts that accurately describe what is actually happening on the ground (and in the air).

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