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Retiring "No Look" Judicial Review in Agency Cases Involving Science

E. Donald Elliott[1]

Sometimes a casual "remark" in a Supreme Court opinion is taken out of context and "takes on a life of its own," observed Justice Neil Gorsuch recently.[2] Justice Gorsuch does not speculate about why this happens, but I propose that such remarks are more likely be taken out of context and take on a life of their own if they provide simple formulas that appear to make the job of judging easier.[3] Let's call this substitution of simplistic formulas for the hard work of interpreting Supreme Court precedents *judging by aphorism*.

Part of the blame for judging by aphorism belongs to the justices and law clerks who wrote the Supreme Court opinion in question; they should avoid simple, catch phrases that appear to sum up complex ideas in a simple phrase because such formulas are open invitations to be taken out of context and misconstrued. But when that problem does occur, the Supreme Court should clarify the phrase that has been inappropriately turned into a simplistic formula by the lower courts. It is particularly compelling that the Court do so if the over-simplification distorts

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[1] Professor (Adjunct), Yale Law School and Distinguished Adjunct Professor, Antonin Scalia Law School George Mason University. I wish to thank the participants in the Gray Center Roundtable on "Facts, Science, and Expertise in the Administrative State" on November 5-6, 2020 for helpful comments on an earlier draft.

[2] *Gundy v. U.S.*, No. 17–6086 (U.S. Sup. Ct., June 20, 2019)(Gorsuch, dissenting at 16), https://www.supremecourt.gov/opinions/18pdf/17-6086_2b8e.pdf

The context for Justice Gorsuch's observation was the elevation of the phrase "intelligible principle" to a controlling standard in delegation doctrine cases. "[I]t's undeniable that the 'intelligible principle' remark eventually began to take on a life of its own. We sometimes chide people for treating judicial opinions as if they were statutes, divorcing a passing comment from its context, ignoring all that came before and after, and treating an isolated phrase as if it were controlling." *Id.* Regardless of whether Justice Gorsuch is right that the "intelligible principle" language was merely loose terminology meant to summarize prior cases rather than to create a new standard, his diagnosis certainly applies to the elevation of a passing remark in *Baltimore Gas & Electric* into a legal doctrine.

[3] See infra – to – for an argument that judges are sometimes tempted to create legal doctrines that excuse them from doing hard or unpleasant work. This is a broader problem than the main subject of this article; so-called *Baltimore Gas & Electric* deference is but one example.

the law in an important area such as the standard of review for agency determinations involving science.

As I will show below, a particularly regrettable example of the problem of judging by aphorism has occurred with regard to a casual statement in a 1983 Supreme Court case, *Baltimore Gas & Electric Co. v. NRDC.*[4] There the Court observed

> "[T]he Commission is making predictions, within its area of special expertise, at the frontiers of science. When examining this kind of scientific determination, as opposed to simple findings of fact, a reviewing court must generally be at its most deferential."[5]

This passing "remark" (to quote Justice Gorsuch) was gratuitous in the sense that it was completely unnecessary to the result in the case. In addition, neither the Supreme Court nor any other court has ever explained how this "most deferential" kind of deference differs from ordinarily deferential deference to other factual determinations by expert agencies, which is already quite "thin"[6]. Nor has anyone explained why a special standard of review is necessary for issues "on the frontiers of science."

Just three years prior to *Baltimore Gas & Electric*, the Supreme Court wrote in *Industrial Union Dept., AFL-CIO v. American Petroleum Inst.*, that the ordinary standards for review of factual findings by an agency were appropriate for scientific issues on the frontiers of science.[7]

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[4] *Baltimore Gas and Electric Co. v. NRDC*, 462 U.S. 87 (1983)(hereafter "*Baltimore Gas & Electric"*).
[5] *Id.* at 103.
[6] Jacob Gersen & Adrian Vermeule, *Thin Rationality Review*, 114 MICH. L. REV. 1355 (2016). Available at: https://repository.law.umich.edu/mlr/vol114/iss8/1 The authors describe *Baltimore Gas & Electric* as "powerfully deferential" but as indicated below, I think it is more accurate to describe it as "no look" judicial review. In any case, their contention that *Baltimore Gas & Electric* review is typical of review of agency decisions generally is consistent with my perspective that we do not need a "special" form of deference to review scientific issues.
[7] 448 U.S. 607, 656 (1980)("OSHA is not required to support its finding that a significant risk exists with anything approaching scientific certainty. Although the Agency's findings must be supported by substantial evidence, U.S.C. § 655(f), § (b)(5) specifically allows the Secretary to regulate on the basis of the "best available evidence." As several Courts of Appeals have held, this provision requires a reviewing court to give OSHA some leeway where its findings must be made on the frontiers of scientific knowledge. See Industrial Union Dept., AFL-CIO v. Hodson, 162 U.S.App.D.C. 331, 340, 499 F.2d 467, 476 (1974); Society of the Plastics Industry, Inc. v. OSHA, 509 F.2d 1301, 130 (CA2 1975), cert. denied, 421 U.S. 992. Thus, so long as they are supported by a body of reputable

There is no indication in the *Baltimore Gas & Electric* opinion that the court intended to overrule that part of its recent decision in *Industrial Union Dept., AFL-CIO v. American Petroleum Inst.* to substitute a materially different standard of review, nor had that issue been briefed or raised in oral argument.

Moreover, the concept that deference should be "most deferential" to issues "on the frontiers of science" is incoherent. The domain to which the observation applies, "predictions … at the frontiers of science," amounts to nothing more than a metaphor that scientific progress is somehow like a population that gradually spreads into previously less populated areas. And the Supreme Court has yet to explain what exceptions are encompassed by its stated caveat that this new undefined level of most deferential deference should only apply "generally" and not across the board even to "predictions within [an agency's] area of special expertise at the frontiers of science."

The Supreme Court's comment probably was not actually intended to create a new kind of more deferential deference but merely as a implicit rebuke of one of the lower court judges, D.C. Circuit then-Chief Judge David L. Bazelon, who had argued prominently for deference to agencies on scientific issues[8] but had nonetheless joined the lower court opinion holding that the agency's decision in the case before the Court was capricious and arbitrary.

Whatever may have motivated Justice O'Connor and her colleagues to include this phrase in the *Baltimore Gas & Electric* opinion is now less important than that in the lower courts this peripheral remark has been expanded into a broad legal doctrine called "*Baltimore Gas &*

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scientific thought, the Agency is free to use conservative assumptions in interpreting the data with respect to carcinogens, risking error on the side of overprotection, rather than under protection." (footnotes omitted)).

[8] *International Harvester Co. v. Ruckelshaus*, 478 F.2d 615, 652 (D.C. Cir. 1973) (Bazelon, C.J., concurring); *Compare Ethyl Corp. v. EPA*, 541 F.2d 1, 68 (D.C. Cir. 1976) (Leventhal, J., concurring) *with Id.*, 67 (Bazelon, C.J., concurring); David L. Bazelon, *Coping with Technology Through the Legal Process,* 62 CORNELL L. REV. 817 (1977).

Electric deference." In practice, *Baltimore Gas & Electric* deference amounts to "no look" judicial review, as one wise contemporary commentator Don Stever warned that it would.[9] In "no look" judicial review, courts merely assert that a subject is "on the frontiers of science," ignore the potentially limiting language about "predictions … with [an agency's] area of special expertise," cite *Baltimore Gas & Electric* and affirm whatever the agency has done without addressing the challengers' arguments on the merits.[10]

This type of "no look" judicial review which reflexively defers to agency conclusions without even examining them is particularly dangerous as decisions by administrative agencies are increasingly made by computer algorithm aka "artificial intelligence" and some courts rubber stamp these decisions merely because they are made by computers.[11] Before the Court's casual remark about most deferential deference does even more harm, the Supreme Court should clarify it and set the lower courts straight about how to review agency cases involving issues of science.

To some, "super-deference"[12] to administrative agencies on issues involving science may sound intuitively plausible. After all, if an issue arises on the frontiers of science isn't the ability

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[9] Donald W. Stever Jr., *Deference to Administrative Agencies in Federal Environmental, Health, and Safety Litigation—Thoughts on Varying Judicial Application of the Rule*, 6 W. NEW ENG. L. REV. 35, 59 (1983), https://digitalcommons.law.wne.edu/lawreview/vol6/iss1/2 ("Adopting a 'no look' approach to the NRC [in *Baltimore Gas & Electric*], the Court effectively cut off judicial review of all but the most mundane of the agency's rules.")

[10] See e.g. *Hayward v. Depart. of Labor*, 536 F.3d 376, 377 (5th Cir. 2008), discussed infra at – to --.

[11] See generally E. Donald Elliott, "Can Artificial Intelligence Save the Regulatory State?" *The American Spectator* (October 28, 2020) *https://spectator.org/can-artificial-intelligence-save-the-regulatory-state/*

[12] One commentator has called *Baltimore Gas & Electric* deference "super-deference." Emily H. Meazell, *Super Deference, the Science Obsession, and Judicial Review as Translation of Agency Science*, 109 MICH. L. REV. 733, 778-784 (2011). Available at: https://repository.law.umich.edu/mlr/vol109/iss5/2 That is a catchy but also meaningless term that, like the Supreme Court's "most deferential" deference language. It only signals that somehow courts should be even more deferential to agencies on issues involving science than on other issues on which agencies also are presumed to have expertise. Neither Meazell, a court nor anyone else has ever explained how the "super-deference" concept would actually work, or justified why deference should be greater to agency conclusions involving science than to other decisions on which agency have expertise. In practice, "no look" judicial review is a more accurate description of what the lower courts actually do when they invoke *Baltimore Gas & Electric*.

of generalist judges to understand the issue at its nadir?[13] This argument fundamentally misunderstands the proper nature of judicial review of administrative decisions, however. Judicial review of administrative decisions is not intended to second-guess scientists on scientific issues but to ensure that: (1) the issues have been considered in depth by the agency; (2) that its reasoning is adequately explained; (3) that the agency's conclusion has a decent modicum of support in existing science; and (4) that the underlying scientific basis for the agency decision is documented so that the outcome can be reconsidered if the relevant science changes.[14]

Moreover, today it is easier for judges to understand the scientific controversies that arise in agency cases than it was when *Baltimore Gas & Electric* was decided. A decade after *Baltimore Gas & Electric*, a 1993 Executive Order required agencies to develop peer review plans.[15] Increasing use of peer review, which was the main thing that Judge Bazelon advocated to aid judges in reviewing scientific issues,[16] should make it easier for judges to understand the scientific controversies that arise in agency decisions sufficiently for them to do their limited job of reviewing the agency's decision for minimal rationality.

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[13] Justice Breyer apparently sided with this faction, asking rhetorically in a recent oral argument "how much do I know about" whether "a particular compound should be treated as a single new active moiety, which consists of a previously approved moiety, joined by a non-ester covalent bond to a lysine group." Transcript of Oral Argument, *Kisor v. Willkie*, S. Ct. No. 18-15 (March 27, 2019), https://www.supremecourt.gov/oral_arguments/argument_transcripts/2018/18-15_8nj9.pdf at p.10, lines 12-17. Justice Breyer may not already be familiar with chemical terminology such as a non-ester covalent bond or a lysine group just as he is not necessarily familiar with the facts in many other cases that come before him but in justifying its decision to treat the compound one way or the other, the agency should explain what these features of the chemical are and why they are significant for how it is to be regulated. If judges were to defer blindly to agency decisions whenever the agency uses technical terminology, judicial review could be thwarted by obfuscation. See H. L. A. Hart, *Bentham and the Demystification of the Law*, 36 THE MODERN LAW REVIEW 2-17 (1973), http://www.jstor.org/stable/1094754

[14] See infra text at note – to ---.

[15] Executive Order 12866 ("Regulatory Planning and Review"), 58 *Fed. Reg.* 51735 (Oct. 4, 1993), discussed infra at --. Peer reviews are generally included in the record for judicial review, but where they are not, they should be to help educate the judges as explained in the text.

[16] See Bazelon, *supra* note – (advocating peer review of scientific decisions).

Although perhaps plausible sounding, in fact *Baltimore Gas & Electric* deference is pernicious for several additioanl reasons: first, it is questionable at the constitutional level on grounds parallel to those on which other doctrines of deference to the administrative state are increasingly being questioned. These include that the federal courts are abdicating judicial powers vested in them by the Constitution and/or by stature. In addition, by deferring to one party's version of the facts, the courts are depriving litigants of their rights to judicial review of the factual support for the agency's decision and exhibiting "systematic judicial bias in favor of the government."[17]

In addition to these more general grounds, however, there are also particular reasons of administrative law why *Baltimore Gas & Electric* deference should be reconsidered.[18]

(1) *Baltimore Gas & Electric* deference creates an irrebuttable presumption that people are experts merely because they work for the federal government.[19] Some of them may indeed have substantial expertise, but unlike other cases in court in which judges examine the qualifications of scientific experts under the *Daubert* doctrine,[20] *Baltimore Gas & Electric* deference cuts off probing by judges into whether the agency's conclusions are actually supported by a significant fraction of scientific experts by giving whatever the

[17] PHILIP HAMBURGER, THE ADMINISTRATIVE THREAT 45-46 (Encounter Books, 2017). The bias in favor of accepting the government's evidence arguably violates a provision of the Administrative Procedure mandating equal treatment for agencies and challengers with regard to the evaluation of evidence: "Except as otherwise required by law, *requirements* or privileges *relating to evidence* or procedure apply equally to agencies and persons." 5 U.S.C. §559 (emphasis supplied).

[18] I do not necessarily maintain that the result in *Baltimore Gas & Electric* was incorrect, but rather than the legal doctrine that has developed in its wake is misguided and should be clarified. See infra at note – to ---.

[19] *Cf.* Richard A. Epstein, *Why the Modern Administrative State Is Inconsistent With the Rule of Law*, 3 NYU J. LAW & LIBERTY 491, 492-93 (2008)("[E]xpertise is an overrated virtue, while the risk of political capture by interest groups and the discord that faction produces is an underappreciated vice.") http://www.law.nyu.edu/sites/default/files/ECM_PRO_060974.pdf

[20] *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993).

agency has concluded "most deferential deference," [21] as opposed to the court assuring itself as it otherwise would that at least a respectable fraction of scientific opinion supports the agency's conclusion.

(2) By announcing in advance that courts will give greater deference to agency decisions based on science than to those based on other factors, courts create a perverse incentive for agencies to rationalize their decisions based on scientific considerations, even if they actually made their decisions on other grounds,[22] and

(3) *Baltimore Gas & Electric* deference instructs courts to defer to agency decisions if the subject matter is "on the frontiers of science" even if the scientists within the agency disagreed with the agency's conclusions.[23]

At the end of this essay, I recommend how courts should review agency decisions involving science. I conclude that *Baltimore Gas & Electric* deference is backwards; judicial review should be particularly probing when agencies make decisions "on the frontiers of science." When the science is not yet clear, policy decisions play a larger role in agency decisions and should be examined with care by reviewing courts. In addition, emerging science is more likely

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[21] For a proposal to apply *Daubert* to administrative law cases, see Alan Charles Raul & Julie Zampa Dwyer, *"Regulatory* Daubert": *A Proposal to Enhance Judicial Review of Agency Science by Incorporating Daubert Principles into Administrative Law*, 66 LAW AND CONTEMPORARY PROBLEMS 7-44 (2003) Available at: https://scholarship.law.duke.edu/lcp/vol66/iss4/2 I opposed wholesale incorporation of *Daubert* into administrative law in the same issue in which it was proposed, E. Donald Elliott, *Strengthening Science's Voice at EPA*, 66 LAW AND CONTEMPORARY PROBLEMS 45, 50 (2003), https://scholarship.law.duke.edu/lcp/vol66/iss4/3/ noting that "Traditionally, courts reviewing agency decisions do not rule on the admissibility of individual items of evidence, but rather review the record as a whole to ensure that an agency's decision has reasonable factual support on the record as a whole." That objection should not, however, be misconstrued as maintaining that in considering the record as a whole, judges may ignore the qualifications of the agency's scientific experts and conclusively presume they are experts merely because they work for the government.

[22] See E. Donald Elliott, *Strengthening Science's Voice at EPA supra* note --, at 50 *citing Wendy E. Wagner, The Science Charade in Toxic Risk Regulation*, 95 COLUM. L. REV. 1613 (1995).

[23] See3 infra – to --.

to change than is more established science.[24] Judicial review can help to clarify and document the premises for an agency's decision so that it can be re-examined if the science changes as more research is done.

I. The *Baltimore Gas & Electric* Decision in Context.

The Supreme Court's decision in *Baltimore Gas & Electric* was the culmination of a 14-year long crusade by the national environmental advocacy group, the Natural Resources Defense Council (NRDC), to try to force the Nuclear Regulatory Commission (NRC) to consider the environmental issues from disposal of "high level" radioactive waste (*i.e.* spent fuel rods from reactors) in decisions to license new reactors. It began with the application in January, 1969, by Consumers Power Co to build a nuclear reactor to supply electricity to Dow Chemical Company's plant in Midland, Michigan. Five neighbors, represented by NRDC, opposed the application on the grounds that inadequate provision had been made to handle the high-level nuclear waste that the reactor would generate.

The NRC concluded that the high nuclear waste generated would not have a significant effect on the human environment, and this conclusion became the subject of two important Supreme Court administrative law decisions, *Vermont Yankee*[25] and *Baltimore Gas & Electric*.[26] The NRC's conclusion that high level nuclear waste from reactors would not have any significant effect on the human environment was based initially on the testimony of a single NRC employee, who was in charge of developing a long-term solution to disposing of high-level nuclear waste. Despite the fact that several previous plans to manage high level waste had been

[24] S*ee generally* THOMAS KUHN, THE STRUCTURE OF SCIENTIFIC REVOLUTIONS (U. Chicago Press, 3d ed. 1996). What is sometimes overlooked when non-scientists read Kuhn is that (1) "scientific revolutions" are infrequent, and (2) when they do occur, the new "paradigm" must account at least as well as the one it replaces for existing data.
[25] *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978).
[26] *Baltimore Gas and Electric Co. v. NRDC*, 462 U.S. 87, 103 (1983).

abandoned, this NRC employee testified that in his opinion the next one would work and therefore there would be no releases to the environment. The DC Circuit in its opinion found this was insufficient, and suggested several ways that the NRC on remand might build a more comprehensive record on the issue.[27] The Supreme Court reversed. Reading the D.C. Circuit's suggestions for ways that the NRC might enhance the record on remand as mandatory, the Supreme Court held unanimously that courts may not prescribe procedures for agencies beyond those mandated by the Administrative Procedure Act.[28] This aspect of *Vermont Yankee* has become a landmark in administrative law.

On remand from the Supreme Court, the D.C. Circuit again held that the NRC's decision was capricious and arbitrary, but this time on the conventional ground that its conclusion that nuclear waste would have no effect on the "quality of the human environment" was not supported by the record. The Supreme Court reversed again, provoking its observation that the NRC's "predictions" were "within its area of special expertise" and "on the frontiers of science" and therefore judicial review should be "at its most deferential."[29]

With the benefit of 40 years of hindsight, it is worth noting that the permanent repository for storage of high-level waste envisioned by the NRC as the basis for its conclusion that nuclear waste would not have a significant effect on the environment has still not been built to this day. The reasons are largely local opposition to siting such a repository, but also a belief by some in

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[27] *NRDC v. U.S. NRC*, 547 F.2d 633 (D.C. Cir., 1976), *rev sub nom*, *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978). In a companion case, *Aeschliman v. U.S. NRC*, 547 F.2d 622 (D.C. Cir., 1976), the D.C. Circuit rejected a number of other arguments, including that the NRC had given inadequate attention to alternatives to reactor construction, including energy conservation. In the interest of full disclosure, the author was a law clerk to Chief Judge Bazelon who wrote the lower court opinion in *Vermont Yankee*, but had no involvement in the *Baltimore Gas & Electric* case.

[28] *Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 U.S. 519 (1978).

[29] *Baltimore Gas and Electric Co. v. NRDC*, 462 U.S. at 103 ("[T]he Commission is making predictions, within its area of special expertise, at the frontiers of science. When examining this kind of scientific determination as opposed to simple findings of fact, a reviewing court must generally be at its most deferential.")

the nuclear industry that retrievable storage makes more sense because the waste can be reprocessed for reuse as fuel.[30] Instead, high level nuclear waste is still stored in pools on site at nuclear reactors spread out throughout the country, where some maintain that it may be an attractive target for terrorists.[31] On the other hand, to date there have not been any significant releases of spent nuclear fuel to the environment – at least not any that have been disclosed publicly – although some might say that we still have 9,960 years to go before the waste becomes inert.

NEPA has sometimes been used not to produce environmental information but to stop things that people oppose for unrelated reasons, as Philip K. Howard, the Chairman on the non-partisan NGO Common Good, has observed.[32] Whether opposition to nuclear power generally was NRDC's motivation or not, the Supreme Court perceived the case as being about stopping reactor construction, and stated forcefully that Congress had dictated that civilian uses of nuclear energy should go forward, as if that resolved the case.

> We are acutely aware that the extent to which this Nation should rely on nuclear power as a source of energy is an important and sensitive issue. Much of the debate focuses on whether development of nuclear generation facilities should proceed in the face of uncertainties about their long-term effects on the environment. Resolution of these fundamental policy questions lies, however, with Congress and the agencies to which Congress has delegated authority, as well as with state legislatures and, ultimately, the populace as a whole. Congress has assigned the courts only the limited, albeit important, task of reviewing agency action to determine whether the agency conformed with controlling statutes.[33]

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[30] RICHARD BURLESON STEWART AND JANE BLOOM STEWART, FUEL CYCLE TO NOWHERE: U.S. LAW AND POLICY ON NUCLEAR WASTE (Vanderbilt U. Press, 2011).

[31] https://www.eurekalert.org/pub_releases/2003-02/pu-hso021303.php#:~:text=High%2Ddensity%20storage%20of%20nuclear%20waste%20heightens%20terrorism%20risks,-Study%20finds%20attack&text=A%20space%2Dsaving%20method%20for,a%20study%20initiated%20at%20Princeton.

[32] PHILLIP K. HOWARD, THE RULE OF NOBODY: SAVING AMERICA FROM DEAD LAWS AND BROKEN GOVERNMENT 62 (2014)("NEPA "was turned into a weapon to stop or delay any project. Instead of a tool for balancing the common good, environmental review became a weapon against democratic choice.")

[33] *Baltimore Gas & Electric*, 462 U.S. at 97.

Unlike many other statutory schemes in which Congress has exempted high-priority activities from environmental review under NEPA,[34] no such explicit statutory exemption from NEPA existed for licensing nuclear reactors. Rather, the regulation at issue in *Vermont Yankee* and *Baltimore Gas & Electric* was an early version of what is today called a "categorical exclusion," a generic decision by an agency that a particular type of action does not typically have a "significant effect on the quality of the human environment." That language is the statutory test for requiring an environmental impact statement, and thus those matters for which the agency has promulgated valid categorical exclusions do not require further analysis under NEPA.[35]

Four years after the Supreme Court's 1983 decision in *Baltimore Gas & Electr*ic, a law review article catalogued the subsequent caselaw and criticized *Baltimore Gas & Electric* deference as "dangerous" because it undermined the historic role of courts to ensure that agencies engaged in reasoned decision-making:

> Many *post-Baltimore Gas* decisions involving judicial review of agency action reflect a heightened notion of deference. Especially when reviewing agency determinations of agencies' regulating the nuclear power industry, the federal courts have heeded the Supreme Court's warning and *applied an extremely narrow scope of review. This trend is dangerous because the courts have declined to exercise their limited but important role of ensuring that the policy and risk assessment choices of expert agencies represent reasoned decisionmaking*. … In areas other than nuclear power regulation, it is equally important that courts encourage agencies to engage in reasoned decisionmaking.[36]

The 1987 article went on observe that

> The courts have relinquished this responsibility under the guise of the reluctance to erode the congressional policy decision favoring the development of nuclear power. In

[34] There is no comprehensive list of statutory exemptions for NEPA, but in 2014, the Covington & Burling library found 54 statutory exemptions from NEPA enacted between 1995 and 2014. Perhaps the most ironic exemption is that many EPA actions are exempt by statute from NEPA. https://www.epa.gov/nepa/epa-compliance-national-environmental-policy-act

[35] https://ceq.doe.gov/nepa-practice/categorical-exclusions.html

[36] Andrew D. Siegel, *The Aftermath o*f Baltimore Gas & Electric Co. v. NRDC: *A Broader Notion of Judicial Deference to Agency Expertise*, 11 HARV. ENVTL. L. REV. 331, 332 (1987) (footnote omitted; emphasis supplied).

> regulating the nuclear power industry, federal agencies must occasionally be reminded by the courts that Congress favors the development of nuclear power only if such development is consistent with protection of public health and the environment.[37]

Another law review article, published almost two decades after *Baltimore Gas & Electric* in 2011, also criticized *Baltimore Gas & Electric* deference as "super-deference" and argued that instead of deferring reflexively to agency determinations on matters of science, "the generalist perspective of judges" could play a useful role in "translating" controversial scientific issues for Congress and the general public.[38]

While the result in *Baltimore Gas & Electric* to allow the reactor construction to proceed without further consideration of the possible effects of waste disposal on the environment is not necessarily incorrect, the Supreme Court might have done less damage to the law if it had limited its decision to the nuclear power industry.[39] A number of lower courts had developed a doctrine of "implied exemptions" from NEPA for mandatory actions.[40] The language of NEPA itself qualifies its mandates by saying "In order to carry out the policy set forth in this Act, it is the continuing responsibility of the Federal Government to use all practicable means, *consistent with other essential considerations of national policy*."[41] In the absence of an explicit exemption from NEPA, the *Baltimore Gas & Electric* Court could have found a implied exemption. Invoking the language about "other essential considerations of national policy quoted above, the Cpourt could have simply said that it read Congress as directing civilian reactor construction to go forward despite NEPA's mandate to catalogue environmental effects rather than seeming to enunciate a

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[37] Id.
[38] Emily H. Meazell, Super Deference, the Science Obsession, and Judicial Review as Translation of Agency Science, 109 MICH. L. REV. 733, 778-784 (2011). Available at: https://repository.law.umich.edu/mlr/vol109/iss5/2
[39] *See, e.g. Ohio v. NRC*, 814 F.2d 258, 264 (6th Cir. 1987)(declaring that courts have a "very limited role ... in the statutory scheme regulating the construction and operation of commercial nuclear power plants.").
[40] See Kyle Robisch, *The NEPA Implied Exemption Doctrine: How a Novel and Creeping Common Law Exemption Threatens to Undermine the National Environmental Policy Act*, 16 VT J.EN'VL L. 173 (2014)(arguing that some lower courts have created "implied exemptions" from NEPA for certain mandatory agency activities).
[41] 42 USC § 4331(b)(emphasis supplied).

broad new standard of heightened deference to agencies on all issues "on the frontiers of science."

An even better way to accommodate the Court's perception that Congress had decided to move forward with nuclear power regardless of any risks attendant upon the disposal of nuclear waste would have been simply to deny an injunction halting the construction of the particular reactor at issue, but to allow further consideration of the waste disposal issues under NEPA to go forward. The issue would not have been moot, as the issue of nuclear waste disposal would continue to be a live one for other reactors. The Supreme Court finally discovered that approach 35 years later in 2008 in *Winter v. Natural Resources Defense Council*.[42] That case involved an attempt, again by NRDC, to halt the use of sonar by the Navy in underwater naval exercises off the west coast because its use might disturb marine mammals such as whales. In an opinion by Chief Justice Roberts, the Supreme Court made short work of that, holding that preliminary injunctions are not automatic in cases alleging inadequate study of an issue under NEPA; instead, courts must use the traditional approach of balancing the equities, including weighing the public interest against the harm from allowing an activity to go forward. In striking this balance, the Supreme Court had no difficulty concluding that the national interest in military preparedness trumped whatever irritation the whales might suffer. This same approach of balancing the equities in deciding whether to issue injunctions in NEPA cases was reinforced two years later in *Monsanto Co. v. Geertson Seed Farms*,[43] a 7-1 decision rejecting the doctrine developed by some lower courts, in particular the Ninth Circuit, that injunctions were automatic in cases in which courts concluded that study of an issue under NEPA had been inadequate.

[42] 555 U.S. 7 (2008).
[43] 561 U.S. 139 (2010).

But a narrow decision based on the facts of the case in *Baltimore Gas & Electric* was not to be. Instead of judicial restraint, Justice O'Connor's opinion in *Baltimore Gas & Electric* pronounced an unnecessarily broad, general principle that judges should be "most deferential" to agencies on all issues "on the frontiers of science."[44] That designation is merely a poetic metaphor that is not amenable to rigorous definition. Ironically, whatever it may mean, the issue in *Baltimore Gas & Electric* itself was not really "on the frontiers of science." The health risks of exposure to radioactive materials have been well understood for decades, at least since Madam Curie died from exposure to radium in 1934; what was at issue in *Baltimore Gas & Electric* was not an issue on the frontiers of science, but a question of engineering and perhaps philosophy: could the United States design and build a structure that would isolate high level waste for the 10,000 years that it remains radioactive?

II. *Baltimore Gas & Electric* in the Lower Courts.

The best way to interpret what a Supreme Court opinion really means is to see how it is read and applied by the lower courts. That's what I meant when I wrote long ago "No decision … is a precedent on the day it is decided. It becomes a precedent [as] it is recognized and accepted as authoritative to resolve other controversies."[45] How the text of an opinion is understood and applied by the relevant interpretative community of lower court judges is more meaningful than how any particular individual might interpret it.

In the case of *Baltimore Gas & Electric*, this public meaning approach leads inexorably to the conclusion that that the case stands for rubber stamping agency decisions without engaging

[44] *Baltimore Gas & Electric*, 462 U.S. at 103. Although she did not cite it, Justice O'Connor may have borrowed the phrase from *Union Dep't v. Hodgson*, 499 F.2d 467, 474-75 (D.C. Cir. 1974), which a decade earlier had suggested the courts should defer to determinations at the "frontiers of scientific knowledge."

[45] E. Donald Elliott, INS v. Chadha: *The Administrative Constitution, the Constitution and the Legislative Veto*, 1983 SUP. CT. REV. 125, 149 (1984), *citing,* Jan Deutsch, *Law as Metaphor: A Structural Analysis of Legal Process*, 66 GEO.L.J.1339, 1340 (1978).

a litigant's objections on their merits. The essential vagueness of the "on the frontiers of science" standard for *Baltimore Gas & Electric* deference poses an open invitation to courts to declare that controversies in other areas are also "on the frontiers of science," cite *Baltimore Gas & Electric* and be done with it. Courts have done just that, applying *Baltimore Gas & Electric* deference mechanically in areas as diverse as permits under the Clean Water Act,[46] approving state implementation plans under the Clean Air Act,[47] and whether a widow is entitled to survivor benefits after her husband died of cancer following exposure to radiation in a Department of Energy facility.[48]

Some of the blame undoubtedly goes to Justice O'Connor and her colleagues for creating an inherently vague and essentially meaningless catch phrase that amounts to nothing more than a metaphorical handwave. However, the lower courts also deserve condemnation for taking this isolated phrase and elevating it into a controlling legal standard that they apply in fields far removed from its original context. The lower courts have generally overlooked even the immediate context of the phrase "frontiers of science," which was

> [T]he Commission is making *predictions, within its area of special expertise*, at the frontiers of science. When examining *this kind of scientific determination, as opposed to simple findings of fact*, a reviewing court must generally be at its most deferential.[49]

If *Baltimore Gas & Electric* deference had been limited to "predictions" within an agency's "area of special expertise" as opposed to "simple findings of fact," it would have done far less harm. But that also was not to be. The lower courts have applied *Baltimore Gas & Electric* deference in cases that do not involve "predictions" within an agency's "area of special

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[46] *AES Sparrows Point LNG, L.L.C. v. Wilson*, 589 F.3d 721, 733 (4th Cir. 2009) (citing *Baltimore Gas & Electric* deference upholding the denial of Clean Water Act permit).
[47] *New York v. EPA*, 852 F.2d 574, 580-81 (D.C. Cir. 1988); *Hawaiian Electric Co. v. EPA*, 723 F.2d 1440, 1446 (9th Cir. 1984).
[48] *Hayward v. Depart. of Labor*, 536 F.3d 376, 377 (5th Cir. 2008).
[49] *Baltimore Gas and Electric Co. v. NRDC*, 462 U.S. 87, 103 (1983)(emphasis supplied).

expertise" but also simple "findings of fact" on scientific question on which the agency has no special expertise.

A good example is *Hayward v. Depart. of Labor*[50] which involved whether the widow of a worker who died of cancer after exposure to radiation in a Department of Energy facility was entitled to compensation. The legal test was a classic finding of fact: whether the particular cancer in question was more likely than not to have been caused by the occupational exposure to radiation. The *Hayward v. Depart. of Labor* court upheld the agency's refusal to consider that decedent's particular type of cancer was exceeding rare and therefore unlikely to have resulted from anything other than the exposure to radiation in the Department of Energy facility and worse yet did so without any analysis but merely by citing *Baltimore Gas & Electric* deference.[51] While the issue in the case was indeed a technical one involving an application of probability theory, it was also a classic example of judicial review of whether an agency has refused to consider a relevant factor in making findings of fact. As the distinguished administrative law scholar Richard Pierce has written, "It is hard to imagine any administrative law issue more basic than identifying the factors that an agency must, can, and cannot consider in making a decision."[52] However, in cases like *Hayward*, we are left without any judicial engagement with the challenger's plausible argument that an important factor had not been considered. It is as if the courts simply throw up their hands and say "Oh this involves science; that's too tough for us. Affirmed."

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[50] *Hayward v. Depart. of Labor*, 536 F.3d 376, 377 (5th Cir. 2008).
[51] *Id.*
[52] Richard J. Pierce Jr., *What Factors Can an Agency Consider in Making a Decision?*, 2009 MICH. ST. L. REV. 67, 67 (2009), https://scholarship.law.gwu.edu/cgi/viewcontent.cgi?article=1954&context=faculty_publications&httpsredir=1&referer=

The result in *Hayward v. Depart. of Labor* is especially troubling for two additional reasons. First, there is no evidence in the court's opinion that the agency making the decision, the Department of Labor, had any "special expertise" in making determinations about the relationship between exposures to radiation and cancer. But even more importantly, the conclusion that the cancer in question probably had not been caused by the exposure to radiation was not made by a human expert at all, but rather was an early application of an "artificial intelligence" computer program.[53] How courts should review the use of algorithms in the administrative process is an emerging issue of the utmost importance.[54] While legal principles are still emerging, most commentators agree that courts must ensure than the algorithms take the relevant factors into account and not paper over the problem of "regulation by robot" with a hand wave in the direction of the "frontiers of science."[55]

Under the doctrine that the phrase from *Baltimore Gas & Electric* has become, lower courts excuse themselves from performing one of the core functions assigned to them by the Congress, determining whether an administrative finding of fact was based on consideration of the relevant factors. That is troubling to say the least, but it is even more troubling when they do so without analysis but merely with a handwave in the direction of the "frontiers of science" because a computer program was involved.

III. Judicial Deference as a Moral Hazard Problem.

The temptation for judges to declare that they don't have to do what Congress has told them to do because they are uncomfortable, feel unqualified or find it unpleasant raises an

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[53] *Hayward v. Depart. of Labor*, 536 F.3d at 377.
[54] *See generally* Administrative Conference of the United States, Artificial Intelligence, https://www.acus.gov/ai
[55] *See* Cary Coglianese & David Lehr, *Transparency and Algorithmic Governance*, 71 ADMIN. L. REV. 1, 4-5 (2019);

underappreciated application of principal-agent theory to the judiciary. It is a commonplace that if (1) an agent is paid on an hourly basis, (2) the agent has input into how much of the agent's services are supplied and (3) the principal has difficulty "monitoring" (*i.e.* second-guessing) the agent's services, the agent's services will be over-supplied:

> For example, consider a roofer who charges by the hour. The roofer might realize that taking as much time as possible to complete the task will reap him higher monetary rewards, so he performs the jobs slowly to bill more hours. Since the client doesn't know anything about roofing, they are powerless to prevent being taken advantage of. Although the client's roof gets fixed, they pay more than necessary because the roofer took his time.[56]

This familiar paradigm, which also applies to outside legal counsel who bill by the hour, is often identified as a "moral hazard" problem.

What is not usually appreciated, however, is the *inverse:* a moral hazard problem also exists when an agent's compensation is fixed regardless of the level of services provided; an agent who is compensated equally regardless of his or her level of effort has an incentive to *under*-supply services, at least if supplying the services in question is not inherently pleasurable. Judges, of course, are paid the same amount whether they decide a great many issues or only a few.

There are of course reputational constraints; the individual judge who "ducks' difficult issues may not be as well regarded as one who decides tough cases, particularly if his or her decisions set precedents that are followed by other judges. For the judiciary as a whole, however, the adverse reputational effects from following a doctrine that applies uniformly to all

[56] upcounsel, Principal-Agent Model Definition: Everything to Know, https://www.upcounsel.com/principal-agent-model-definition#:~:text=The%20Principal%2DAgent%20Problem&text=Agency%20costs%20come%20from%20setting,act%20in%20a%20certain%20way.&text=This%20situation%20may%20encourage%20the,who%20charges%20by%20the%20hour.

judges are attenuated; thus, there are incentives for the judiciary as a whole to avoid doing what many judges find it unpleasant or uncomfortable to do, such as reviewing agency science.[57]

This incentive is counter-balanced to the extent that many judges – perhaps like others in government -- enjoy exercising power. The tendency for judges to over-step their bounds by "legislating from the bench" is well-recognized, and may indeed be the primary judicial issue of our day. That too may be a moral hazard problem, as some have observed.[58] But not everything that judges do is equally pleasurable, and as their monetary compensation is fixed, the personal satisfaction that they get from judging is one of its primary rewards. I can't prove it, but I suggest that many judges find greater personal satisfaction in declaring some new right or in protecting the downtrodden than they do in criticizing an agency for an inadequate discussion of a matter of science. If that intuitively plausible hypothesis is true, then there is a moral hazard problem with the creation of judicial doctrines of deference, including *Baltimore Gas & Electric* deference, that justify judges in not doing their traditional job of reviewing agency decisions for reasonable support in the record.

Of course, this does not mean that every doctrine mandating judicial deference is unjustified. There may be valid institutional reasons for certain deference doctrines. However, because of the moral hazard problem, we should scrutinize with particular care doctrines that judges create for themselves that allow them to avoid performing their traditional work.

IV. The Administrative Law Case Against *Baltimore Gas & Electric* Deference

A. Judicial Questioning Should Be Particularly Probing of the Reasons for Decisions "On the Frontiers of Science."

[57] A number of other legal doctrines by which judges excuse themselves from certain kinds of work also raise similar issues.

[58] See Greg Weiner, Judicial Checks and Moral Hazard, Law & Liberty (June 24, 2019), https://lawliberty.org/judicial-checks-and-moral-hazard/

Baltimore Gas & Electric deference provides an excuse to uphold administrative decisions that are not supported by science even to the minimal extent required by the "might appeal to a reasonable mind" standard that courts apply to the factual underpinnings for administrative decisions generally.[59] This is backwards; when agencies make decisions on the "frontiers of science," judicial scrutiny should be heightened, not reduced. When science is inconclusive and still evolving rapidly, policy considerations play an even larger role than when the scientific facts are relatively clear and constrain administrative discretion to some degree. Accordingly, courts should be particularly skeptical and require good reasons for why an agency acts before the science becomes more settled.[60] In addition, it is important to put on the public record the agency's understanding of the science at the time of its decision, so that it can be re-examined and corrected later as the science evolves.

B. Enhanced Deference Invites the "Science Charade."

There are also additional reasons of administrative law why *Baltimore Gas & Electric* deference defeats the policy purposes for which judicial review of administrative decisions was created. By announcing in advance that rationales based on science will receive lesser scrutiny than those based on policy or other factors, the courts have created a perverse incentive for agencies to make decisions based on other grounds but to rationalize them based on science – a shell game that Professor Wendy Wagner has aptly named the "science charade."[61]

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[59] See *Universal Camera Corp. v. NLRB*, 340 U.S. 474 (1951). The reduced standard of proof for agency determinations of fact is itself questionable, see PHILIP HAMBURGER, THE ADMINISTRATIVE THREAT (Encounter Books, 2017), but that is a discussion for another day.

[60] On the tradeoff between acting now to prevent harm in the meantime or waiting until the science becomes clearer, see Ortwin Renn and E. Donald Elliott, *Precautionary Regulation of Chemicals in the US and EU in* THE REALITY OF PRECAUTION: COMPARING RISK REGULATION IN THE UNITED STATES AND EUROPE 223, 256-57 (eds. Jonathan B.Wiener, Michael D. Rogers, James K. Hammitt & Peter H. Sand)(RFF Press, 2011).

[61] Wendy E. Wagner, *The Science Charade in Toxic Risk Regulation*, 95 Colum. L. Rev. 1613 (1995).

The effects of this differential standard of review for decisions allegedly based on science are particularly irrational in the context of modern collegial agencies such as the Environmental Protection Agency or the Occupational Safety and Health Administration in which the views of the agency scientists are typically not made transparent separately. In the usual model in which only the agency's final decision is announced and rationalized in a statement written by the agency's lawyers, the courts are required to defer to the agency's decisions on scientific grounds even if all the agency's scientists disagreed with it. I have previously noted and criticized this anomaly.

> [J]udicial review has almost become a form of literary criticism, focusing on the skill of the Agency's lawyers in writing up opinions, rather than the rationality of the actual basis of Agency decisions, because the courts rarely see the actual basis for the Agency's decisions. In a sense, the culprit is the *Morgan* rule, the notion that you can't go behind the agency's statement of reasons, because that has created a distance between the actual grounds of the decision and the stated basis. *Courts should not defer to agency decisions on the grounds of scientific expertise if all of the scientists within the agency dissented from the decision*.[62]

A few statutes use a different model, in which a science entity such as EPA's Clean Air Science Advisory Committee (CASAC) decides on a range of outcomes that would be defensible scientifically, and then policymakers either pick one of the options they have identified, or overrule them. This model has been criticized by some for constraining the choices open to political appointees. I, on the other hand, have endorsed it for that same reason; to me, it strikes an appropriate balance between science and policy. The modern prophet of expertise in administrative decisions, James Landis, praised what has become the administrative state for encouraging decisions based on "politics and expertise" without seemingly realizing that the two often come into conflict and one of the central tasks of institutional design in the administrative state is to strike an appropriate balance of the power of experts and political appointees. But

[62] E. Donald Elliott, Alan Charles Raul, Richard J. Pierce Jr., Thomas O. McGarity, and Wendy E. Wagner (moderator), *Science, Agencies, and the Courts: Is Three a Crowd?* 31 ELR 10125, 10127 (Jan., 2001).

however that balance is struck, it is bonkers for courts to defer to an agency's decisions on grounds of scientific expertise if all, or even most, of those with scientific expertise within the agency were of a different mind.

Judges, like other government officials, often see only the immediate consequences of their actions and tend to overlook the second-order effects that are created by the incentives that their decisions create. Henry Hazlitt, called this the "fallacy of overlooking secondary consequences":

> Th[ere] is the persistent tendency of men to see only the immediate effects of a given policy, or its effects only on a special group, and to neglect to inquire what the long-run effects of that policy will be not only on that special group but on all groups. It is the fallacy of overlooking secondary consequences. … the whole of economics can be reduced to a single lesson, and that lesson can be reduced to a single sentence. *The art of economics consists in looking not merely at the immediate but at the longer effects of any act or policy; it consists in tracing the consequences of that policy not merely for one group but for all groups.*[63]

There is no evidence that Justice O'Connor or the other members of the Supreme Court that decided *Baltimore Gas & Electric* saw that by saying that a reviewing court must generally be at its most deferential for decisions on the frontiers of science, the court was creating an incentive for agencies to rationalize their decisions based on science, even if they actually reached them on other grounds.

Under a misguided administrative law doctrine[64] sometimes called "the *Morgan* rule,"[65] courts are usually not allowed to probe into the actual reasons that an agency made a decision; rather, if the agency has offered a "contemporaneous statement of reasons" for its action, except

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[63] HENRY HAZLITT, ECONOMICS IN ONE LESSON (1946) http://jim.com/econ/preface.html

[64] The doctrine that courts will not go behind an agency's stated reasons is based on an inappropriate analogy between collective decision-making in agencies and probing the mind of a human decision-maker, which was actually the subject of the *Morgan* case. *United States v. Morgan*, 313 U.S. 409, 422 (1941).

[65] See Kenneth Craddock Sears, *The* Morgan *Case and Administrative Procedure, Administrative Law Symposium, February 3-4, 1939*, 7 GEO. WASH. L. REV. 726 (1939), https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=13400&context=journal_articles

in extraordinary cases, courts must review the agency's decisions based on the reasons provided.[66] This unusual doctrine by which courts blind themselves to the real reasons for administrative decisions gives the agency's lawyers substantial leeway to craft a cover story that they think will be more likely to be upheld in court rather than stating the real reasons for a decision.

One of the greatest regulatory reformers of the 20th century, economist Alfred Kahn, who served as chair of the Civil Aeronautics Board under Jimmy Carter, described this problem in his usual colorful style. He called the CAB's contemporaneous statements of reasons for which airline got a particular route "a work of fiction … published as the Board's opinion" and claimed that "any resemblance [between the Board's published opinion] and the Board's actual reasons for its decision would be purely coincidental."[67] According to Kahn, the actual decision was made in a closed sessions from which staff was excluded, and then someone would call up the lawyers with the name of the lucky winner and they would then write up a decision that bore no relationship to the actual grounds for decision and "then the courts solemnly reviewed these

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[66] A recent Supreme Court case involving the census invokes a narrow exception for "bad faith or improper behavior" but reiterates the usual rule that "A court is ordinarily limited to evaluating the agency's contemporaneous explanation in light of the existing administrative record, *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc.*, 435 U. S. 519, but it may inquire into "the mental processes of administrative decisionmakers" upon a "strong showing of bad faith or improper behavior," *Overton Park*, 401 U. S., at 420." *Depart. of Commerce v. New York*, U.S.S.C No. 18–966 (June 27, 2019) Slip Op., Syllabus at p.4.

[67] THOMAS K. MCCRAW, PROPHETS OF REGULATION: CHARLES FRANCIS ADAMS LOUIS D. BRANDEIS JAMES M. LANDIS ALFRED E. KAHN 286 (Harvard, 1984). The full context of Kahn's statement as reported by McCraw is as follows:

> "I have been told by people who have been at the CAB for a long time … that in the past the Board would often choose among competing applicants for the right to operate a particular route in secret sessions, held in a closed room from which all staff were rigidly excluded; that somehow out of that process emerged a name attached to the route in question; that the Chairman – or perhaps his assistant – would then pick up the telephone and call the General Counsel and tell him who the lucky winner was and nothing more; that then a lawyer on the General Counsel's staff, amply supplied with blank legal tablets and a generous selection of clichés –some, like 'beyond-area benefits,' 'route strengthening,' or 'subsidy need reduction,' tried and true, others the desperate product of a feverish imagination – would construct a work of fiction that would be published as the Board's opinion. Need I add that any resemblance between it and the Board's actual reasons for its decision would be purely coincidental? And the courts solemnly reviewed these opinions, accepting the fiction that they truly explained the Board's decision, to determine whether the proffered reasons were supported by substantial evidence of record." Id.

opinions, accepting the fiction that that they truly explained the Board's decision, to determine whether the proffered reasons were supported by substantial evidence of record."[68]

While practice may differ from agency to agency, and time to time, the practice that Kahn describes at the CAB in the 1970s is substantially similar to what I observed at EPA 1989-1991 as General Counsel; although EPA mostly used rulemaking rather than adjudication, the lawyer who wrote up the agency's statement of basis and purpose for the *Federal Register* was almost never in the room when the Administrator or Deputy Administrator made the final decision. If I was, I would try to remember to call the lawyer who was writing up the decision and convey a few sentences of what actually happened, in the hope that some of the real rationale might make it into the statement of reasons; sometimes it did and sometimes it did not.

A humorous illustration of this problem occurred in 2007. Then EPA Administrator Stephen Johnson, a non-lawyer, sent a short letter to the Governor of California on December 19, 2007 denying a request for a waiver by California to set greenhouse gas standards for automobiles under the Clean Air Act and met with the press later that same day to explain his reasons in more detail.[69] The state and environmental groups promptly sued; EPA argued that the reasons stated publicly by the Administrator for a decision that he had made didn't count; the agency got the chance to have its lawyers write up a cover story that would be more likely to pass judicial muster. The EPA's 48 page "formal decision" denying the waiver, which it contended should be the basis for judicial review, was made public over two months later.[70] We

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[68] Id.

[69] Micheline Maynard, E.P.A. Denies California Emission's Waiver, THE NEW YORK TIMES (Dec. 19, 2007), https://www.nytimes.com/2007/12/19/washington/20epa-web.html

[70] Notice of Decision Denying a Waiver of Clean Air Act Preemption for California's 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles, 73 Fed. Reg. 12,156 (Mar. 6, 2008); John Walke, EPA Administrator Johnson's CA Waiver Denial: Mind, and Mime Alone (August 01, 2008), https://www.nrdc.org/experts/john-walke/epa-administrator-johnsons-ca-waiver-denial-mind-and-mime-alone

never got a clear answer as to whether Administrator Johnson's statements on the day that he sent the letter to California denying the waiver, or the 48-page *post hoc* rationalization by counsel which was published two months later, was the agency's "contemporaneous statement of reasons" for purposes of judicial review because Johnson's decision was reversed and the waiver granted by the incoming Obama Administration in July, 2009.[71]

Because the agency's stated rationale often bears little relationship to the actual grounds for decision, elsewhere I have disparaged judicial review of the rationale for agency decisions as a form of "literary criticism" that tests the skill of the agency's lawyers to write a plausible basis for a decision,[72] and called for a limited exception to the *Morgan* rule to disclose what the scientists within the agency actually thought about the matter:

> [I]n the case of collegial agencies such as EPA that meld different disciplinary strands such as politics and science, I would consider modifying the so-called *"Morgan* rule" that reviewing courts do not go behind an agency's written decision to inquire into the mental processes of decisionmakers. It seems bizarre that courts must defer to an EPA decision based on the Agency's alleged scientific "expertise" if all the scientists at the Agency opposed the decision on the science but were overruled by the politicians. In deciding how much deference to give an agency decision based on alleged expertise, a court should be entitled to know whether the particular decision is grounded on science or policy. The outcome in *Morgan* is understandable on its facts: the court wanted to avoid exposing how little the Secretary of Agriculture personally knew about the decisions that were made in his name, and perhaps it also desired to protect the confidentiality of deliberative advice. But respecting those principles does not have to lead us to ignore the debates between disciplines that go on inside agencies. In other areas, we have managed to survive putting into the public record the changes made to proposed EPA rules by economists and policy analysts at the Office of Management and Budget ("OMB"), although admittedly these changes do not become part of the record for judicial review." When the scientists at EPA, such as the Science Advisory Board, have refused to approve the Agency's scientific rationale, a court should consider that refusal in giving lesser deference to the Agency's decision.[73]

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[71] EPA, Notice of Decision Granting a Waiver of Clean Air Act Preemption for California's 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles, 74 Fed. Reg. 32,744 (July 8, 2009).
[72] Elliott*, supra* note 62.
[73] E. Donald Elliott, *Strengthening Science's Voice at EPA*, 66 LAW AND CONTEMPORARY PROBLEMS 45, 51 (Autumn, 2003)(footnotes omitted).

Pretextual statements of reasons for agency decisions is a problem across the board but it is particularly problematic with regard to *Baltimore Gas & Electric* deference; the announcement of a more lenient standard of review for issues on the frontiers of science is a continuing temptation for lawyers to rationalize decisions based on the science to get the benefit of the lesser standard.[74] While I am not yet ready to call for the wholesale abolition of the *Morgan* rule, I do maintain that asking for *Baltimore Gas & Electric* deference for a conclusion with which the agency's scientists disagreed should qualify as a "bad faith" pretext justifying going behind the agency's stated reasons to probe what the scientists actually thought under the Supreme Court's recent census case.[75]

V. Conclusion: *Baltimore Gas & Electric* Deference Re-Examined.

Mercifully, legal doctrines that do not fit coherently into the overall structure of the law in an area tend to fall by the wayside and eventually become dead letters that are either explicitly over-ruled or distinguished out of significance. There is some evidence that may gradually be happening to *Baltimore Gas & Electric* deference as other administrative law doctrines such as the requirement to provide reasoned explanations for the agency's exercises of its discretion[76] gradually become more salient. The idea that courts should be rubber stamps for agency decisions "on the frontiers of science" appears to be applied less frequently today than it was in the years immediately following the *Baltimore Gas & Electric* opinion.[77] Good riddance.

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[74] See Meazell, *supra* note 24, 109 Mich. L. Rev. at 752 ("If agencies know that courts will be at their most deferential when reviewing scientific determinations, they will rationally emphasize the scientific aspects of their decisions to the detriment of clearly identifying the policy decisions filling the scientific gaps.")

[75] *Depart. of Commerce v. New York*, *supra* --.

[76] *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29 (1983).

[77] See Meazell, *supra* note --, at 770 ("While the super-deference principle continued to be cited in the coming years, the extreme deference of the early *post-Baltimore Gas* period seemed to give way to a more measured approach. "). *But see* Jacob Gersen & Adrian Vermeule, *Thin Rationality Review*, 114 MICH. L. REV. 1355 (2016)(arguing that the "thin" rationality review of *Baltimore Gas & Electric* is actually winning out over the more demanding review of agency rationales under *State Farm* upon which Meazell relies).

Courts should require agencies to address opposing arguments and provide a reasoned explanation for their decisions, even if – and perhaps, especially if -- they are "on the frontiers of science." The need for reasoned explanations is actually greater when the science is less established and still evolving rapidly.

The intuitively appealing notion that judicial review should be more "deferential" because judges find it hard to understand issues "on the frontiers of science" proceeds from a profound misunderstanding of the nature of judicial review of administrative decisions. At least in legal theory, judges are not reviewing administrative decisions for whether they agree or disagree with the outcome, but rather whether they are reasonable and within the agency's purview. In the case of technical decisions, this should include scrutiny of the professional background and qualifications of the persons making the technical and scientific decisions for the agency as well as the procedures followed to make the decisions. People should not be conclusively presumed to be experts merely because they work for the federal government.

Under Executive Order 12866,[78] which was not yet in effect at the time of the *Baltimore Gas & Electric* case, most agencies are now required to have procedures in place for peer review of scientific and technical decisions. Courts should pay particular attention to the criticisms raised by peer reviewers, and satisfy themselves that the agency has answered those objections rationally.

In addition, particularly in cases on the frontiers of science, where scientific knowledge is evolving rapidly, courts should insist that agencies lay out clearly for the court and the public the scientific conclusions that undergird their decisions so that they can be reconsidered in the future as the science continues to evolve.

[78] Executive Order 12866 ("Regulatory Planning and Review"), 58 *Fed. Reg.* 51735 (Oct. 4, 1993).

Judicial deference to administrative agencies on issues of either law or fact may be suspect for a variety of reasons that others have pointed out.[79] But "no look" *Baltimore Gas & Electric* deference as applied by the lower courts is a particularly egregious example of courts abdicating their responsibilities in matters involving science. It should be re-examined and clarified by the Supreme Court.

[79] Hamburger, *supra* note -- ; Epstein, *supra* note .