

9-1-2012

The Nature of the Environmental Right to Know

Shannon M. Roesler

Follow this and additional works at: <https://scholarship.law.berkeley.edu/elq>

Recommended Citation

Shannon M. Roesler, *The Nature of the Environmental Right to Know*, 39 *ECOLOGY L. Q.* 989 (2012).

Link to publisher version (DOI)

<http://dx.doi.org/https://doi.org/10.15779/Z38KN9T>

This Article is brought to you for free and open access by the Law Journals and Related Materials at Berkeley Law Scholarship Repository. It has been accepted for inclusion in Ecology Law Quarterly by an authorized administrator of Berkeley Law Scholarship Repository. For more information, please contact jcera@law.berkeley.edu.

The Nature of the Environmental Right to Know

Shannon M. Roesler*

Numerous laws and policies claim to further the environmental right to know, and demands for disclosure of environmental information are made on the basis of this putative right. But although the right is often asserted, it is rarely scrutinized. In this article, I draw on the interest theory of rights to identify the interests underlying various manifestations of the environmental right to know in law and policy. I argue that the importance of the right can only be explained by its connection to more fundamental values and interests, such as interests in intellectual freedom, personal liberty, self-government, and human health.

By investigating the interests that justify the right, we can better understand its implications in two respects. First, an interest analysis clarifies the various disclosure obligations of both government and industry. It can also lead to some surprising conclusions. For example, in some cases, interests in personal liberty and self-government may provide stronger support for disclosure of environmental information than health and environmental interests. Second, the assessment of right-to-know interests in particular contexts helps resolve conflicts created by competing claims to nondisclosure of environmental information. In the final section of the article, I analyze two such conflicts: free-speech objections to state labeling laws requiring disclosure of environmental information and trade secret objections to public disclosure of information concerning chemical substances.

Introduction.....	990
I. The Nature of Rights	992
A. Moral vs. Legal Rights.....	993
B. Theories of Rights.....	995
C. From Rights Claims to Legal Recognition of Rights.....	999

Copyright © 2012 Regents of the University of California.

* Associate Professor of Law, Oklahoma City University School of Law. I would like to thank the participants in the Second Annual Fall Colloquium on Environmental Scholarship at Vermont Law School for their comments on an earlier draft of this article. I especially wish to thank Rebecca Purdom for her thoughtful suggestions on an earlier draft. I am also grateful to the Oklahoma City University School of Law for supporting my work through the provision of a summer research grant.

II. The Nature of the Environmental Right to Know	1000
A. A Core Right to Know Based on Society's Interest in Intellectual Progress.....	1001
B. Derivative Rights to Information	1004
1. The Right to Self-Expression.....	1004
2. The Right to Personal Liberty.....	1006
3. The Right to Self-Government.....	1011
4. The Right to Health and Safety.....	1015
i. The Individual Right to Know in the Workplace and Beyond	1016
ii. The Right to Know What?	1023
5. The Right to a Healthy Environment	1027
III. Resolving Conflicts Regarding the Environmental Right to Know ..	1030
A. State Labeling Laws and the Environmental Right to Know.....	1032
B. Trade Secrets and the Environmental Right to Know.....	1036
1. Legal Definitions of Trade Secrets	1036
2. A Right to Protect Trade Secrets?.....	1038
3. Utilitarian Interests Underlying Trade Secrets.....	1040
4. Deciding When Disclosure is Appropriate	1041
Conclusion	1046

INTRODUCTION

During the advent of the chemical age in the twentieth century, people had little reason to demand information about the release of chemical substances into the environment. These chemicals held the promise of progress; farmers enjoyed bigger yields as a result of pesticides and consumers benefitted from the innovation and convenience of plastics. Unfortunately, the long-term environmental consequences of these chemical innovations were not always obvious. But as early environmental activists warned, in addition to the dangers posed by large releases, even small releases of commercial chemicals into the air, water, and land can have long-term, chronic effects. As public awareness of these risks grew, legislators responded to claims that the public has a right to environmental information by passing state and federal disclosure laws imposing reporting requirements on commercial facilities.

Although the environmental right to know is often discussed in conjunction with a 1986 federal statute, the Emergency Planning and Community Right to Know Act,¹ other claims regarding the environmental right to know continue to surface today.² In the last two sessions of Congress, a

1. Emergency Planning and Community Right-to-Know Act of 1986, Pub. L. No. 99-499, 100 Stat. 1728 (1986) (codified as amended at 42 U.S.C. §§ 11001-11050 (2006)).

2. For example, in May 2011, OMB Watch issued a 103-page report on behalf of more than one hundred organizations with detailed recommendations for how law and policy can further the environmental right to know. OMB WATCH, AN AGENDA TO STRENGTHEN OUR RIGHT TO KNOW:

number of bills were introduced to expand public access to particular kinds of environmental information. For example, the Drinking Water Right to Know Act would ensure that information concerning some unregulated contaminants in drinking water is accessible to the public.³ The Sewage Overflow Community Right-to-Know Act would require that sewage treatment plants report discharges of raw sewage.⁴ The Genetically Engineered Food Right to Know Act would mandate labels that disclose when food contains genetically engineered material or is produced with genetically engineered material.⁵ And the Fracturing Responsibility and Awareness of Chemicals Act, perhaps the most well-known of these bills, would require companies that engage in hydraulic fracturing, a process used to extract natural gas, to disclose to governmental officials the chemical constituents in fracturing fluids.⁶

As these examples demonstrate, the right to know motivates demands that industry and government make information about the environment available to the public. But although the right to know is often invoked to justify a range of disclosure obligations, commentators have not considered whether a *right* to environmental information actually exists and, if it does, exactly what impact it should have on law and policy. What duties does an environmental right to know justify? Is it a right only to raw data in the government's possession? Or does it impose duties to gather information and to translate it into language most people can understand? How do we reconcile conflicts between the right to know environmental information and competing rights and interests, such as those underlying corporate nondisclosure of trade secrets?

Answers to these questions depend on the *nature* of the environmental right to know. That is, the importance of the right to know can best be explained by its connection to more fundamental values and interests, such as interests in scientific knowledge, self-government, human health, and the environment. Once these interests are identified and defined, we can answer questions regarding disclosure obligations by asking whether disclosure would further one or more of the interests underlying the right. Would, for example, public disclosure of the chemicals used in hydraulic fracturing further important interests, such as individual health or democratic participation?

EMPOWERING CITIZENS WITH ENVIRONMENTAL, HEALTH, AND SAFETY INFORMATION (May 2011), available at <http://ombwatch.org/files/info/eiirecommendations.pdf>.

3. S. 875, 112th Cong. (2011).

4. S. 937, 111th Cong. (2009).

5. H.R. 5577, 111th Cong. (2010). In addition, in November 2012, California voters considered a ballot initiative, the Right to Know Act, which would have required the labeling of genetically modified foods. Although the initiative lost support just weeks before the vote as a result of a negative ad campaign by the opposition, it nevertheless received 4.3 million votes (46.9 percent of the votes cast). Andrew Pollack, *After Loss, the Fight to Label Modified Food Continues*, N.Y. TIMES, Nov. 7, 2012, http://www.nytimes.com/2012/11/08/business/california-bid-to-label-genetically-modified-crops.html?_r=0.

6. H.R. 1084, 112th Cong. (2011); Fracturing Responsibility and Awareness of Chemicals Act, S. 587, 112th Cong. (2011).

The main objective of this article is to investigate the nature of the environmental right to know by identifying both its explicit and its subtle manifestations in positive law, namely case law, statutes, and regulations, and, to some extent, in the historical claims of activists seeking legal reform and the governmental policies that respond to these claims. The central argument is that by investigating the interests that motivate these manifestations of the right, we can better understand its implications in two respects. First, an interest analysis clarifies the various disclosure obligations of both government and industry. Second, the assessment of right-to-know interests in particular contexts helps resolve conflicts created by competing claims to nondisclosure of environmental information.

In the first section of the article, I draw on political and legal theory to discuss the nature of rights generally. After discussing the various ways in which rights are defined, I adopt the definition associated with the interest theory of rights. According to the interest theory, a right exists if an aspect of a person's well-being is a sufficient reason to hold someone else to a duty. For purposes of defining a right, the interest theory is the most useful analytical tool because it is not grounded in particular moral values, but is instead a definition of rights that applies across moral and political views. As such, it can be used to examine rights claims in a society in which people hold diverse and sometimes conflicting views.

In the next section, I apply the interest theory to manifestations of the right to know in positive law. Much of this discussion draws on First Amendment law to identify the interests in intellectual freedom, self-expression, personal liberty, and self-government that underlie claims to a general right to know (of which the environmental right to know is a part) in constitutional and statutory law. The latter part of this section turns to laws and policies that claim to further a specific right to environmental information grounded in health and environmental interests. In each case, I explore the disclosure duties that the underlying interest justifies in the environmental context. In the final section of the article, I demonstrate how the assessment of right-to-know interests can help resolve conflicts created by competing claims to nondisclosure of environmental information. I analyze two such conflicts: free-speech objections to state labeling laws requiring disclosure of environmental information and trade secret objections to public disclosure of information concerning chemical substances.

I. THE NATURE OF RIGHTS

An analysis of the nature of the environmental right to know begins with an examination of the nature of rights generally. When people say they have a "right" to something, they are often making a claim that someone else has a duty to do or refrain from doing something. In his famous typology of legal rights in 1919, Professor Wesley N. Hohfeld identified this sense of a right as a

claim-right.⁷ That is, A has a claim-right to do X when B (or everyone) has either a negative duty not to impede A in doing X or a positive duty to do what can be done so that A can do X. For example, to say that A has a right to free expression means that people have a duty not to interfere with A's expression. Or, to say that A has a right to know what chemicals are used in manufacturing a particular product means that someone else, perhaps the manufacturer, has a duty to disclose the identity of those chemicals. In this sense, rights correlate with duties; that is, a right necessarily gives rise to a duty on the part of someone else.

But although this may accurately describe many legal rights as a general matter, it leaves many questions about the nature of rights and corresponding duties unanswered. When an individual says she has a right to education, and this right is not found in positive law, is she making a claim that someone else has a duty to provide it? And if so, whose duty is it and what justifies her claim?⁸ As legal and political theorists have recognized, a theory of rights should explain the special relationship between rights claims and duties.⁹ This section touches on some possibilities and ultimately concludes that the interest theory of rights best captures our understanding of political rights and helps us sort out the value judgments underlying rights and duties.

A. *Moral vs. Legal Rights*

A central premise of this Article is that to understand the meaning of the "right to know" in laws and legal argument, one must look beyond the specific instances in which the right is given legal force—for example, in the duty to report chemical releases for inclusion in the Toxics Release Inventory. This premise rests on the assumption that rights are not simply creatures of law; they include moral claims as well. But not everyone would agree with this assumption. The most famous rejection of the idea of *moral* rights is English philosopher Jeremy Bentham's declaration that the idea of moral rights is "nonsense on stilts." For Bentham, a right is the "child of law," and by "law," he clearly means legislated positive law: "from real laws come real rights; but

7. Wesley N. Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 26 YALE L.J. 710, 717 (1919). In his influential account of legal rights in judicial reasoning, Hohfeld identifies four different meanings of the phrase "A has a right to X": it may refer to claim rights, liberties, powers, or immunities. *Id.*

8. As Alon Harel explains, Hohfeld's analytic typology of legal rights (as claims rights, liberty rights, powers, and immunities) is definitional, rather than normative. Alon Harel, *Theories of Rights*, in THE BLACKWELL GUIDE TO THE PHILOSOPHY OF LAW AND LEGAL THEORY 191, 193 (Martin P. Golding & William A. Edmundson eds., 2005). But even as a conceptual theory, it is subject to the criticism that some concepts require further elaboration. In particular, the idea that a duty is *owed* to a right-holder requires further development: "It is unclear whether, and in what ways, a duty *owed* to an entity A (e.g., the duty not to trespass on A's land) differs from a duty merely *concerning* an entity A (e.g., the duty not to destroy unowned works of art—a duty which, presumably, is not owed to anybody)." *Id.*

9. See, e.g., Jeremy Waldron, *Introduction to THEORIES OF RIGHTS* 1, 8–9 (Jeremy Waldron ed., 1984).

from imaginary laws, from laws of nature . . . come imaginary rights.”¹⁰ In other words, for Bentham the concept of a right includes legal force, and if all rights are necessarily rights recognized by positive law, it makes little sense to make arguments about rights not yet recognized by law.

And yet we do. The problem with the view that all rights are legal rights is that it conflicts with actual practice; people *do* make arguments about rights that lack legal recognition. People speak in terms of the right to universal health care or the right to be free from hunger, though these rights may not be part of established law. Rights in contemporary political discourse are therefore better understood as moral or ethical assertions than more narrowly as legally enforceable duties.

This is not to say that moral rights and legal rights do not share a special relationship. Though he rejected the view that law is best explained through its connection with morality, Professor H.L.A. Hart recognized the “intimate connection between moral and legal *rights*.”¹¹ According to Hart, moral rights factor into moral determinations regarding the circumstances under which a person may legitimately demand that another person do or not do something, and such determinations ground coercive legal rules.¹² Furthermore, to acknowledge that moral rights exist is not to locate them in a particular moral theory or to commit to a belief in “natural law.” Rather, it is simply to acknowledge that we make claims about rights and duties that derive from moral judgments and deeply held values in the same way utilitarian philosophers, like Bentham, make claims about social utility that derive from moral judgments and deeply held values.¹³ Both kinds of claims can and often do motivate and inform lawmaking, but each has an independent force of its own.

10. JEREMY BENTHAM, ANARCHICAL FALLACIES: BEING AN EXAMINATION OF THE DECLARATION OF RIGHTS ISSUED DURING THE FRENCH REVOLUTION (1792), *reprinted in* THE NATURE AND PROCESS OF LAW: AN INTRODUCTION TO LEGAL PHILOSOPHY 94, 96 (Patricia Smith ed., 1993).

11. H.L.A. Hart, *Are There Any Natural Rights?*, in THEORIES OF RIGHTS, *supra* note 9, at 77, 79 (emphasis added); *see also* H.L.A. HART, THE CONCEPT OF LAW 189–95 (Oxford Univ. Press 1988) (1961) (discussing the “minimum content of natural law”).

12. Hart, *supra* note 11, at 79. Hart actually suggests that the connection between law and morality in this limited context is a necessary one. He indicates that the moral justification for demanding that another person do or not do some action is a “necessary though not a sufficient condition for justifying coercion,” which would presumably come from the law. *Id.* n.6. As Professor Amartya Sen has noted, in contrast to Bentham’s view of rights as children of law, Hart’s discussion of rights suggests that they may be understood as “parents of law.” AMARTYA SEN, THE IDEA OF JUSTICE 363 (2009).

13. SEN, *supra* note 12, at 362 (“Just as utilitarian ethical reasoning takes the form of insisting that the utilities of the relevant persons must be taken into account in deciding what should be done, the human rights approach demands that the acknowledged rights of everyone . . . must be given ethical recognition. The relevant comparison lies in this important contrast, *not* in differentiating the legal force of legislated rights . . . from the obvious absence of any legal standing generated by the *ethical* recognition of rights without any legislation . . .”).

B. Theories of Rights

If rights are not limited to legal rights, then it is necessary to adopt a definition of rights that captures the many ways in which rights are used in *both* legal and philosophical discourse. Most theorists would agree that rights themselves are often—if not always—connected to more abstract and fundamental values and interests.¹⁴ As political theorists have noted, rights enshrined in constitutional provisions, such as the Fourth Amendment, are not likely to be the fundamental propositions of a political theory.¹⁵ For example, a right to be free from unreasonable search and seizures is likely grounded in privacy concerns, and perhaps even more fundamentally in values of autonomy.¹⁶ It is these more fundamental values and interests that explain the importance of a given right and help us to deduce the implications of an asserted right in a particular context.¹⁷

Within political and moral philosophy, theories of rights abound. For example, Professor Ronald Dworkin advances a conception of rights as trumps over political policies that are justified by utilitarian considerations.¹⁸ For Professor Robert Nozick, rights function as side constraints that limit individual action in negative ways (i.e., by requiring that the agent refrain from acting in a particular way).¹⁹ Professor Amartya Sen grounds rights in freedoms; to assert a right not to be tortured is to assert the importance of freedom from torture.²⁰ But because these definitions are tied to the fundamental principles of larger political theories, they are limited in their ability to capture and explain rights claims across political theories and in different legal and political contexts. Dworkin's conception of rights is tied to his deep commitment to equality.²¹ Nozick's conception follows from his theory's fundamental commitment to Kantian dignity and the idea of self-ownership.²² And Sen's characterization of

14. For example, Professor Ronald Dworkin's well-known classification of political theories into rights-based, goal-based, and duty-based theories is premised on the idea that rights, goals, and duties in a given theory derive from more fundamental propositions. RONALD DWORKIN, *TAKING RIGHTS SERIOUSLY* 171 (1977) ("It seems reasonable to suppose that any particular theory will give ultimate pride of place to just one of these concepts; it will take some overriding goal, or some set of fundamental rights, or some set of transcendent duties, as fundamental, and show other goals, rights, and duties as subordinate and derivative.").

15. See e.g., Jeremy Waldron, *A Rights-Based Critique of Constitutional Rights*, in 13 OXFORD LEGAL STUDIES 18, 21 (1993).

16. *Id.*

17. *Id.*

18. RONALD DWORKIN, *JUSTICE FOR HEDGEHOGS* 328–31 (2011) (explaining the concept of political rights as trumps); Ronald Dworkin, *Taking Rights Seriously*, in *THEORIES OF RIGHTS*, *supra* note 9, at 153, 166 ("We need rights, as a distinct element in political theory, only when some decision that injures some people nevertheless finds prima-facie support in the claim that it will make the community as a whole better off on some plausible account of where the community's general welfare lies.").

19. ROBERT NOZICK, *ANARCHY, STATE, AND UTOPIA* 29 (1974).

20. SEN, *supra* note 12, at 376.

21. See Dworkin, *supra* note 18, at 166; see also DWORKIN, *supra* note 18, at 330 ("We fix and defend particular rights by asking, in much more detail, what equal concern and respect require.").

22. NOZICK, *supra* note 19, at 30–33.

rights claims as assertions of various freedoms assumes a particular definition of freedom.²³ Although these conceptions of rights can help us identify the rights we *should* have consistent with the values of a given political theory, they cannot elucidate the nature of the many rights that people with different sets of values *claim* to have.

Unlike definitions of rights embedded in political theories, the will or choice theory of rights associated with Professor H.L.A. Hart is a purportedly descriptive account of rights.²⁴ But Hart is primarily concerned with the question of when the term “right” should be used to explain aspects of “ordinary law” practiced by lawyers. That is, he seeks to identify the ways in which speaking in terms of a right captures something that a lawyer cannot capture by speaking only in terms of a duty.²⁵ For Hart, the unique attribute of a legal right is the *choice* that comes from some measure of control over another’s duty.²⁶ The right-holder has, for example, the control to waive or extinguish the duty and to enforce or not enforce a breach of that duty.²⁷

This attribute of control is, of course, primarily found in the civil law, as opposed to criminal law where the concept of a duty is sufficient without reference to a corresponding right.²⁸ Hart explicitly recognizes that his theory does not provide an analysis of constitutional rights or the “language of rights” generally, but is instead limited to “the level of the lawyer concerned with the working of the ‘ordinary’ [civil] law.”²⁹ Although some incarnations of the environmental right to know, such as tort claims for failure to warn, do in fact exhibit this element of individual control over a corresponding duty,³⁰ many—

23. SEN, *supra* note 12, at 228–31.

24. Hart is interested in analyzing the law as a social convention separate from any particular vision of morality. Nevertheless, others have argued that his view of rights as legally respected choices privileges moral values of autonomy and self-determination. See Harel, *supra* note 8, at 194; see also Waldron, *supra* note 9, at 11–12 (“Hart’s presentation of the Choice Theory was associated with a more general thesis that the right to liberty was both fundamental to and presupposed all other claims about individual rights.”).

25. H.L.A. HART, *ESSAYS ON BENTHAM: STUDIES IN JURISPRUDENCE AND POLITICAL THEORY* 162, 183–84 (1982). This type of linguistic analysis is characteristic of Hart’s analytic philosophy. See NEIL MACCORMICK, *H.L.A. HART* 113 (2d ed. 2008) (explaining Hart’s view that to define terms like right, “one must consider their usage within complete phrases or sentences and elucidate the conventional conditions within which such phrases or sentences are properly used and are true”).

26. In Hart’s account, rights are “legally respected choice[s]” in that the right-holder is “given by the law exclusive control, more or less extensive, over another person’s duty so that in the area of conduct covered by that duty the individual who has the right is a small-scale sovereign to whom the duty is owed.” HART, *supra* note 25, at 183.

27. *Id.* at 184. In civil law, this measure of control would include powers to waive performance, demand performance, and remedy breaches of a duty (or choose not to remedy). In his later work on rights, Hart conceded that not all such powers are necessary; for example, some statutory duties, such as workplace safety obligations, may not be waived and employees are still logically said to have rights under these laws. See MACCORMICK, *supra* note 25, at 114–15.

28. HART, *supra* note 25, at 183.

29. *Id.* at 193.

30. Hart recognized that certain welfare entitlements (e.g., public assistance) logically entail talk of rights in that the beneficiary of the entitlement may exercise some control in demanding the

such as industry's duty to report information regarding some chemical releases—do not. In addition, the choice theory only covers rights recognized by positive law. In these respects, it is far too limited a definitional theory for an inquiry into the nature of the environmental right to know.

This leaves us with the theory often cited as the choice theory's main contender: the interest theory of rights developed by Professor Joseph Raz.³¹ Raz sets out to formulate a definition of rights that "illuminates a tradition of political and moral discourse in which different theories offer incompatible views as to what rights there are and why."³² Such a definition would be sufficiently broad to permit analysis of rights across different contexts (both legal and moral), facilitating the inquiry into the diverse moral visions that may underpin a particular right in various contexts. In the interest theory, "[a]ssertions of rights are typically intermediate conclusions in arguments from ultimate values to duties."³³ Consequently, to fully understand the importance of a right and the duties it may impose, we must identify the ultimate values and interests that justify particular duties.

This connection between deeper values, or interests, and duties is captured in Raz's definition of rights: "X has a right if and only if . . . other things being equal, an aspect of X's well-being (his interest) is a sufficient reason for holding some other person(s) to be under a duty."³⁴ X has a right to free exercise of religion, for example, if her interest in practicing her religion is a sufficient reason for holding the government to have particular duties not to interfere with religious practice. This right to free exercise is a "core" right in that it does not derive from another right, but directly from the interest that justifies it. A "derivative" right, on the other hand, is grounded in another right. For example, the right to attend a particular worship service is derivative of the right to free exercise of religion; it is one instance of the more general right to free exercise, which is in turn based on an interest in practicing one's religion. In analyzing the right to know, this distinction is important; as the next section demonstrates, the right to know can be described as a core or a derivative right depending on the fundamental interests or rights that justify it.³⁵

entitlement and suing to enforce it. *Id.* at 187–88. The "right" to governmental information provided in statutes such as the Freedom of Information Act has similar features.

31. JOSEPH RAZ, *THE MORALITY OF FREEDOM* 165–92 (1986); see also Waldron, *supra* note 9, at 9–12 (describing the choice and interest theories and noting the strengths of the interest theory as a general theory of rights).

32. *Id.* at 166.

33. *Id.* at 181. Rights therefore serve an important function in a pluralistic society by "enabl[ing] a common culture to be formed around shared intermediate conclusions, in spite of a great degree of haziness and disagreement concerning ultimate values." *Id.* For an early interest analysis of free speech rights, see T.M. Scanlon, Jr., *Freedom of Expression and Categories of Expression*, U. PITT. L. REV. 519, 535 (1978–79) (describing expressive rights as intermediate arguments between fundamental interests and policy arguments).

34. RAZ, *supra* note 31, at 166.

35. Raz admits that in defining rights as based on individual interests, he leaves little room for a moral theory ultimately grounded in rights (a "rights-based" theory to use Dworkin's terminology). But even though his definition seems to rule out "foundational" rights, it does contemplate the idea of

Another critical consequence of Raz's definition is that although a right does not exist unless it gives rise to at least one duty,³⁶ a right can be the basis for more than one duty, and these duties can change with circumstances and over time. In other words, the definition of a right includes the underlying context and competing concerns: "Which duties a right gives rise to depends partly on the basis of that right, on the considerations justifying its existence. It also depends on the absence of conflicting considerations."³⁷ For example, a right to environmental information may not ground a duty to disclose if serious national security concerns exist. In more specific terms, a duty to disclose the location of a particular chemical plant based on an individual's interest in knowing about potential environmental hazards may not be justified if the government knows that disclosing this information will endanger public safety.³⁸ But if circumstances change—if this threat no longer exists—the right may ground a duty to disclose.³⁹

Two final points about the interest theory's definition of rights are critical to its application. First, although rights are based on the interests of the right-holder (as opposed to other people or even the general public), the interests upon which rights are based need not be of ultimate value to the right-holder, but may instead be of instrumental value.⁴⁰ In other words, an interest may warrant respect because of the benefits that flow to others when that interest is

"fundamental" rights. *Id.* at 192. A right is fundamental "if it is justified on the ground that it serves the right-holder's interest in having that right inasmuch as that interest is considered to be of ultimate value, i.e., inasmuch as the value of that interest does not derive from some other interest of the right-holder or of other persons." *Id.* Because my analysis of the environmental right to know assumes that it is grounded in various moral values that do not necessarily derive (and need not derive) from one particular moral vision, the inability of the definition to accommodate a rights-based theory in which rights are foundational (as opposed to fundamental) is not problematic. *Id.*

36. The opposite is not true. Although a right exists only if it is based on an interest that justifies a duty, some duties exist without rights. *Id.* at 186. Indeed, Kantian or deontological notions of duty are not grounded in rights. That said, Raz's definition of rights captures all the duties of concern to the environmental right to know, and because we are here concerned with the implications of the *right* to know, we are only interested in duties that are grounded in rights.

37. *Id.* at 183.

38. Of course, if other security measures or the reduction of dangerous chemicals stored at the facility would lessen the threat, the right to know may generate disclosure obligations. See Joseph A. Siegel, *Terrorism and Environmental Law: Chemical Facility Site Security vs. Right-to-Know?*, 9 WIDENER L. SYMP. J. 339 (2002–03) (discussing means to reduce the threat of harm from a terrorist attack on a chemical facility).

39. See RAZ, *supra* note 31, at 185–86 ("[R]ights can be ascribed a dynamic character. They are not merely the grounds of existing duties. With changing circumstances they can generate new duties."). None of this means that people must understand the details regarding duties in order to assert that a right exists. As Raz explains, people may know that children have the right to education without knowing who (the parents, the state, the community) has a duty to provide it. *Id.* at 184. Though this suggests that people's knowledge of the right is incomplete, it does not mean that they do not have an understanding that the right exists and that it gives rise to some duty on the part of someone. *Id.* at 185. To understand all the implications of the right, however, we must understand its justification—the argument from ultimate value to duty: "[I]t is reflection on the right to education, its point and the reasons for it, which helps, together with other premises, to establish such implications." *Id.*

40. *Id.* at 178–80.

respected.⁴¹ For example, the media's right of access to governmental information can be justified by its interest in collecting information, but that interest is only instrumentally valuable because it is ultimately justified by the value of the information to the general public.⁴² Second, right-holders are people "who possesses certain general characteristics: they are the beneficiaries of promises, nationals of a certain state, etc."⁴³ Consequently, an individual may have a right that is contrary to her personal interest. For example, it may be in a person's interest not to practice a particular religion, but she nonetheless has a right to do so because that right serves her interest in religious freedom as a national of a certain state.⁴⁴

C. *From Rights Claims to Legal Recognition of Rights*

Given my focus on positive law, one more methodological point requires emphasis. Although I look to positive law to identify and investigate the different manifestations of the right to know, my analysis does not end there. It is not strictly a legal analysis. Instead, positive law is one source (perhaps the most useful and developed source) of information regarding right-to-know claims. It is evidence of the contexts in which the right has been asserted historically and therefore evidence of what interests the right has been understood to advance. Based on an evaluation of these interests, I raise normative questions about what duties the right *should* impose both as a moral and legal matter.

That said, the imposition of a *legal* right raises institutional, political, and economic questions about how best to protect the right and impose its duties. Political and economic constraints at particular moments in time will affect whether a legal duty to further the right to know is recognized. Institutional norms also play a particularly important role. Norms of institutional authority will determine whether a duty is properly recognized as a matter of constitutional law, federal statute, agency regulation, or state law.⁴⁵ Interpretive norms (e.g., canons of constitutional and statutory construction) will also affect the nature of legal duties. In some cases, all these factors will combine to make the recognition of a legal duty more or less likely. For example, a combination of these factors makes it more likely that in interpreting a constitutional right, the Supreme Court will impose negative duties on government (e.g., the duty not to restrict private speech) than positive duties (e.g., the duty to encourage speech on a range of views). In considering whether the right to know not only

41. *Id.* at 249.

42. *Id.* at 179. Given that society's interest may be of ultimate value, Raz's definition clearly permits the grounding of rights in utilitarian considerations. *See id.* at 187 (arguing that "there is nothing essentially non-aggregative about rights").

43. *Id.* at 180.

44. *Id.*

45. By institutional authority, I mean political decision making authority. As Professor Jeremy Waldron has argued, questions regarding who has the power to make decisions are separate from questions about what justice requires. Waldron, *supra* note 15, at 32.

justifies holding someone to a moral duty, but also justifies imposing a legal duty, I acknowledge these real-world constraints and institutional norms. Consequently, although my normative arguments draw from moral considerations, my recommendations also take these material and institutional factors into account.

II. THE NATURE OF THE ENVIRONMENTAL RIGHT TO KNOW

The following Part uses the interest theory of rights to investigate the nature of the environmental right to know. The inquiry seeks to identify the various interests that justify the right as it is asserted (either explicitly or implicitly) in different legal contexts ranging from First Amendment case law to federal statutes and state law. In some of the contexts explored in this Part, the right asserted is not strictly a right to know *environmental* information, but is understood as a right to information or ideas generally or, in some cases, as a right to information about governmental affairs. Because environmental information is certainly included in the broadest sense of the “right to know” and information regarding governmental affairs may implicate environmental matters, the interests underlying these rights justify particular duties regarding the disclosure and dissemination of environmental information and are therefore relevant to an understanding of the nature of the environmental right to know.

Supreme Court opinions recognize a number of interests that are furthered by a right to receive information from others.⁴⁶ In the first section, I discuss how the right to know implicitly grounds duties that further what has been described as the core purpose of the First Amendment: society’s interest in advancing truth and knowledge. I then discuss derivative manifestations of the right to know. A right to information is implicit in the Court’s discussions of various First Amendment interests, namely interests in self-expression, liberty, and self-government. In addition, a specific *environmental* right to information often grounds laws and claims seeking to further health and environmental interests. In the final two sections, I analyze instances of this right in laws that seek to further human health and protect the environment. An interest analysis of these various rights contributes to our understanding of the environmental right to know because it reveals the arguments from “ultimate values to duties”⁴⁷ of disclosure. In other words, it helps clarify when disclosure of environmental information is, in fact, justified by the right to know. It also leads to some counterintuitive conclusions, namely that, in many cases, interests in personal liberty and self-government may provide stronger support for the environmental right to know than health and environmental interests.

46. See *infra* Parts II.A–II.B.3.

47. RAZ, *supra* note 31, at 181. Rights therefore serve an important function in a pluralistic society by “enabl[ing] a common culture to be formed around shared intermediate conclusions, in spite of a great degree of haziness and disagreement concerning ultimate values.” *Id.*

A. *A Core Right to Know Based on Society's Interest in Intellectual Progress*

The earliest support for a right to receive information and ideas comes from Supreme Court interpretations of the First Amendment. These opinions often ground the government's duty to protect speech in society's interest in advancing truth and knowledge.⁴⁸ In this view, valuable ideas are strengthened and refined when subject to opposition and public scrutiny. Even false or damaging ideas enjoy protection because they are best corrected or discredited through competition with other ideas.⁴⁹ In Supreme Court opinions, the metaphor of the "marketplace of ideas" is frequently used to express this assumption that the free and open competition of ideas furthers society's interest in advancing truth and knowledge.

The marketplace metaphor is often traced to the British philosopher John Stuart Mill.⁵⁰ For Mill, the silencing of expression harms not only the silenced speaker, but also everyone in society (both now and in the future) because it impedes the advancement of truth and knowledge.⁵¹ What is interesting about Mill's defense of free speech, for purposes of the right to know, is that it is fundamentally connected to intellectual freedom, which he describes as "absolute freedom of opinion and sentiment on all subjects."⁵² Indeed, for Mill, the true evil of censorship lies in deciding the truth for others by not allowing the full range of views and opinions to be heard.⁵³ This is so because the advancement of truth and knowledge depends on the intellectual freedom that generates "great thinkers," which is, in turn, furthered by the open exchange of ideas.⁵⁴

In First Amendment law, the marketplace metaphor is frequently associated with Justice Holmes's dissent in *Abrams v. United States*. Much like Mill, Holmes emphasized that the truth of one era is often replaced by a new truth in the next, and "that the best test of truth is the power of the thought to

48. See, e.g., *Whitney v. California*, 274 U.S. 357, 375 (1927) (Brandeis, J., concurring).

49. See *id.* at 375, 377 (noting that "the fitting remedy for evil counsels is good ones" and the remedy for false speech is "more speech").

50. See, e.g., *Am. Booksellers Ass'n v. Hudnut*, 771 F.2d 323, 330 (7th Cir. 1985) (noting that the marketplace metaphor referred to in many important constitutional decisions is connected to Mill). Neither Mill nor Holmes actually used the phrase "marketplace of ideas." The phrase first appears in Supreme Court case law in *Keyishian v. Board of Regents*, 385 U.S. 589, 603 (1967) (describing the classroom as "peculiarly the 'marketplace of ideas'").

51. J.S. MILL, *ON LIBERTY AND OTHER WRITINGS* 20 (Stefan Colini ed., 1989). For Mill, it does not matter whether the opinion is, in the end, true or false: "If the opinion is right, they are deprived of the opportunity of exchanging error for truth; if wrong, they lose, what is almost as great a benefit, the clearer perception and livelier impression of truth, produced by its collisions with error." *Id.*

52. *Id.* at 15. In fact, although free expression is essentially "inseparable" from free thought, Mill's description of free speech as "being almost of as much importance" as freedom of thought suggests that the right to free speech is a right derived from the more fundamental right to free thought. *Id.*

53. *Id.* at 26.

54. *Id.* at 46. Mill cautions that freedom of thought is not principally, or even primarily, justified by its utility to "great thinkers." *Id.* at 36. Rather freedom of thought is necessary for an "intellectually active" society, which furthers new ideas and advances knowledge. *Id.*

get itself accepted in the competition in the market.”⁵⁵ Years later, Justice Brennan, relying in part on Mill, spoke in terms of a “profound national commitment” to free and open debate on public issues.⁵⁶ In justifying the right to free speech even for erroneous statements regarding public officials, Brennan stressed the inevitability of false speech in free debate and the importance of the public’s interest in receiving the *information* that facilitates free debate on matters of public concern.⁵⁷ It is the weight of this interest in information that ultimately justifies the government’s duty to refrain from suppressing speech and outweighs conflicting interests in privacy and reputation.⁵⁸

According to the interest theory of rights, this interest in advancing intellectual freedom justifies a right to information only if it is a sufficient reason to hold another to be subject to one or more duties.⁵⁹ In the First Amendment context, this interest has been characterized as the *core* purpose or fundamental value of the amendment, justifying negative duties on the part of government not to restrict or otherwise interfere with the dissemination of information and ideas.⁶⁰ But an interest in intellectual freedom and progress arguably justifies broader duties as well (e.g., a positive governmental duty to ensure the robustness of the marketplace by promoting or encouraging the dissemination of information and ideas). In upholding regulations that required the broadcast media to present balanced discussion of public issues, a unanimous Supreme Court once embraced this view.⁶¹ The Court grounded a

55. *Abrams v. United States*, 250 U.S. 616, 630 (1919) (Holmes, J., dissenting). Despite this similarity in language, Mill and Holmes likely understood “truth” to mean very different things. Holmes was skeptical of the idea of transcendent truth; his notion of truth was more pragmatic, grounded in a concept of Darwinian competition, in which the strongest ideas—those with the most acceptance—prevail. See Vincent Blasi, *Holmes and the Marketplace of Ideas*, 2004 SUP. CT. REV. 1, 27–31. Mill, on the other hand, contemplated a “gradual narrowing of the bounds of opinion” over time as certain ideas did indeed prove themselves true. MILL, *supra* note 51, at 45.

56. *N.Y. Times Co. v. Sullivan*, 376 U.S. 254, 270 (1964).

57. *Id.* at 271–72 (relying in part on Mill).

58. *Id.* (“The interest of the public here outweighs the interest of . . . any other individual. The protection of the public requires not merely discussion, but information . . . Errors of fact, particularly in regard to a man’s mental states and processes, are inevitable . . . Whatever is added to the field of libel is taken from the field of free debate.” (quoting *Sweeney v. Patterson*, 128 F.2d 457, 458 (D.C. Cir. 1942))); see also *Bartnicki v. Vopper*, 532 U.S. 514, 534 (2001) (noting that privacy concerns must give way because the “core purposes of the First Amendment” are threatened by “sanctions on the publication of truthful information of public concern”); *Zacchini v. Scripps-Howard Broad. Co.*, 433 U.S. 562, 573 (1977) (holding that the First Amendment did not prevent recovery in a right of publicity case because the question of “who gets to do the publishing” does not seriously impede the public’s access to information).

59. Even if an individual’s interest in information is not sufficient to justify duties, it may be instrumentally valuable given society’s interest in intellectual progress.

60. See, e.g., *Griswold v. Connecticut*, 381 U.S. 479, 482 (1965) (“[T]he state may not, consistently with the spirit of the First Amendment, contract the spectrum of available knowledge.”)

61. *Red Lion Broad. Co. v. FCC*, 395 U.S. 367, 390 (1969) (“It is the right of the viewers and listeners, not the right of the broadcasters, which is paramount. It is the purpose of the First Amendment to preserve an uninhibited marketplace of ideas in which truth will ultimately prevail, rather than to countenance monopolization of the market.” (citations omitted)); see also *Lamont v. Postmaster Gen.*, 381 U.S. 301, 308 (1965) (Brennan, J., concurring) (recognizing an independent *fundamental* right to

governmental duty to promote a robust marketplace in a right to receive information justified by society's interest in intellectual progress.

In subsequent cases, however, the Court has retreated from the view that the government has an affirmative duty to promote a robust marketplace.⁶² In addition to cases involving the media,⁶³ recent decisions regarding campaign finance laws suggest that a majority of the justices are skeptical of affirmative duties of this nature, particularly when the argument is that the government has an obligation to correct imperfections in the marketplace by burdening—even indirectly—the speech of some to facilitate or encourage the speech of others.⁶⁴ But even though affirmative duties are not likely to receive constitutional recognition, a right to receive information that imposes only negative duties on government not to interfere with the private flow of information is still of some significance regarding information about the environment. It justifies a governmental duty, for example, not to restrict or burden scientific and academic research involving environmental issues.⁶⁵

Furthermore, although negative duties seem the most likely candidates for constitutional recognition, the question remains whether positive duties are morally justified by society's interest in intellectual progress and whether any merit legal recognition. For example, an interest in advancing scientific knowledge about the environment may justify a duty on the part of government

receive information: "The dissemination of ideas can accomplish nothing if otherwise willing [recipients] are not free to receive and consider them. It would be a barren marketplace of ideas that had only sellers and no buyers.")

62. At least in part, the Court's reluctance to recognize positive duties in this context and others can be explained by competing liberty interests that justify rights to self-expression and personal autonomy. *See infra* Part II.B.2.

63. In later cases, the Court declined to extend the reasoning of *Red Lion Broadcasting* to different media contexts, such as the print and cable industries, distinguishing broadcast frequencies from other media on the basis of their "technological scarcity" and rejecting arguments that the government has a duty to remedy imbalances of economic power in the marketplace of ideas. *See* *Miami Herald Publ'g Co. v. Tornillo*, 418 U.S. 241, 244, 248, 258 (1974) (rejecting the argument, as applied to the print media, that "Government has an obligation to ensure that a wide variety of views reach the public"); *see also* *Turner Broad. v. FCC*, 512 U.S. 622, 639–40 (1994) (explaining that the "physical limitations of the electromagnetic spectrum," rather than economic dysfunction, justify government intervention and that "the mere assertion of dysfunction or failure in a speech market, without more, is not sufficient").

64. *See* *Ariz. Free Enter. Club's Freedom PAC v. Bennett*, 131 S. Ct. 2806, 2818 (2011); *Davis v. FEC*, 554 U.S. 724, 736 (2008) (holding unconstitutional a campaign finance law that increased contribution limits for a candidate when an opponent spends \$350,000 or more of her own money). The broad reach the Court has given government speech in recent cases also suggests that the Court is unwilling to recognize restrictions—even on the government's own speech—to ensure the marketplace contains a range of voices. *See* *Pleasant Grove City v. Summum*, 555 U.S. 460 (2009); *Johanns v. Livestock Mktg. Ass'n*, 544 U.S. 550 (2005). *Compare* *Garcetti v. Ceballos*, 547 U.S. 410, 421 (2006) (holding that a public employee may be disciplined for statements made pursuant to official duties), *with id.* at 429 (Souter, J., dissenting) ("[T]he First Amendment safeguard rests on something more, being the value to the public of receiving the opinions and information that a public employee may disclose.")

65. A number of scholars have argued that a First Amendment right to scientific inquiry exists. *See, e.g.,* Dana Remus Irwin, *Freedom of Thought: The First Amendment and the Scientific Method*, 2005 WISC. L. REV. 1479 (arguing that the right to scientific experimentation is grounded in freedom of thought).

to gather data and generate environmental information through scientific research, but it may not justify the broad public dissemination of this information. An interest in furthering environmental knowledge is not necessarily served by the broad dissemination of all information because the evaluation and use of such information requires expertise and knowledge most people do not have. This suggests that although the government may have a duty to collect—and possibly even generate—information about the environment, an interest in intellectual progress does not necessarily justify a duty to make this information available to everyone. Indeed, because only certain individuals can use the information to advance society's knowledge of the environment, the individual right to know in this context is arguably held only by those individuals.

B. *Derivative Rights to Information*

The right to know grounded in the interest in intellectual progress is a core right in that it derives directly from the interest that justifies it. Other manifestations of the right to know are derivative in nature because they are justified by the ways in which they further other more fundamental rights. In First Amendment law, for example, the right to receive information and ideas is often justified by the ways in which it furthers the right to free speech, the right to personal liberty, and the right to self-government. In addition, specific instances of the *environmental* right to know often appear justified by rights to health and safety and—to a lesser extent—the right to a healthy environment. The following section discusses each of these rights, their underlying interests, and their implications for the right to know as it applies to environmental information.

1. *The Right to Self-Expression*

The right to free speech is sometimes justified by an interest in self-expression that is valuable in itself without resorting to some other interest of ultimate value, such as an interest in intellectual freedom. In this sense, the right to free speech is a fundamental right. Such a right arguably supports a derivative right to receive information, which justifies duties furthering the fundamental right to free speech and its underlying interest in self-expression. The argument for such a right is fairly straightforward: a right to receive information furthers the expressive interest underlying the right to free speech by ensuring speakers have access to audiences.

This formulation of the right to information surfaces in a number of Supreme Court opinions. For example, in deciding whether a local school board could constitutionally remove books with content they disliked from a school library, a plurality of justices justified a right to receive information (held by the students) as derived from both the sender's right to convey

information *and* the recipient's own right of free speech.⁶⁶ The plurality specifically tied the argument regarding the recipient's own free speech rights to the interest in self-government furthered by informed public speech.⁶⁷ But in a recent case, *Sorrell v. IMS Health Inc.*, a five-Justice majority also characterized a restriction on access to *commercial* information as a violation of the would-be recipients' free speech rights where the recipients were commercial entities who sought the information for commercial purposes, namely the marketing of brand-name drugs to doctors.⁶⁸

These cases reflect a conception of the right to know as comprising both a right to receive information *as* communication and a right to obtain information *in order* to communicate. Both rights further the interest in free expression; they are essentially the "reverse side of the coin from the right to communicate."⁶⁹ But although they may further that ultimate interest, they may do so in different ways. The duties they impose will depend on the right-holder and the specific nature of the interests justifying the right. If the right to receive information is derived from the speaker's right to free speech, the recipient's right is only instrumentally valuable; it is the speaker's interest that justifies imposing duties on others. This conception of the right to receive therefore presupposes a *willing* speaker; however, the right to receive information in order to further the recipient's own interest in speaking does not. Provided the recipient intends to use the information for expressive purposes, the recipient may logically assert a right to information in order to claim access to information and ideas that no one wishes to convey.

As a legal matter, such a far-reaching right does not exist. Given conflicting privacy and liberty interests, an interest in using information for expressive purposes has not justified imposing legal duties on others to disclose

66. *Bd. of Educ. v. Pico*, 457 U.S. 853, 867 (1982) (plurality) (Brennan, J.); *see also* *Brown v. Entm't Merchs. Ass'n*, 131 S. Ct. 2729, 2735–36 (2011) (suggesting that a state law that restricted the sale or rental of violent video games to minors violated both the rights of the speaker and the minor recipients). In addition, in *United States v. American Library Ass'n*, 539 U.S. 194 (2003), Justice Souter recognized the practical necessity of a derivative right to receive in some situations. *Id.* at 242 n.8 (Souter, J., dissenting). The case involved the constitutionality of a federal law that required public libraries receiving federal money to use Internet software that blocked some Internet content. Justice Souter noted that the creators of blocked material are not likely plaintiffs because they may have no idea their speech is being blocked. *Id.* He concluded, therefore, that to prevent this kind of censorship, "there is no alternative to recognizing a viewer's or reader's right to be free of paternalistic censorship as at least an adjunct of the core right of the speaker." *Id.*

67. *Pico*, 457 U.S. at 867 (quoting James Madison in support of the idea that popular sovereignty requires an informed public).

68. *Sorrell v. IMS Health Inc.*, 131 S. Ct. 2653, 2663 (2011). The plaintiffs (data miners and pharmaceutical manufacturers) challenged as unconstitutional under the First Amendment a Vermont law that restricted the sale, disclosure, and use of pharmacy records containing a doctor's prescribing practices to pharmaceutical manufacturers for purposes of marketing. *Id.*

69. Thomas I. Emerson, *Legal Foundations of the Right to Know*, 1976 WASH. UNIV. L.Q. 1, 2; *see also* Marc Jonathan Blitz, *Constitutional Safeguards for Silent Experiments in Living: Libraries, the Right to Read, and a First Amendment Theory for an Unaccompanied Right to Receive Information*, 74 U.M.K.C. L. REV. 799, 811–13 (2006) (discussing the "mirror-image conception" of the right to receive information).

information. Statutory laws, such as the Freedom of Information Act, that give citizens the right to request information in the hands of government are grounded in other interests, such as the interest in self-government discussed below, and contain exemptions that protect information when competing interests, such as personal privacy, are present.⁷⁰ Indeed, even when these interests are not implicated, the Court has suggested that government may constitutionally deny all access to governmental information.⁷¹

Thus, because the Court has not recognized a First Amendment right to governmental information, when an individual seeks environmental information to further an expressive interest, that interest will not justify a constitutional duty to disclose unless the government permits disclosure for other purposes or to other speakers.⁷² Even from a moral standpoint, when other interests, such as privacy, conflict with the recipient's interest in using the information for expressive purposes, a duty of disclosure will depend on the strength of those competing interests and whether disclosure furthers other interests, such as the interests in self-government or liberty discussed below.⁷³

2. *The Right to Personal Liberty*

The right to know information regarding the environment may also further important liberty interests. Although liberty is a notoriously contested concept, most political theorists share a core understanding of personal liberty as enabling individuals to pursue their own life plans consistent with the freedom, or liberty, of others to do the same.⁷⁴ This seems a fairly uncontroversial idea, but its implementation is not so simple. Although people may agree that this interest in liberty—in living their lives the way they wish to live them—

70. 5 U.S.C. § 552(b) (2006).

71. See *U.S. Police Dep't v. United Reporting Publ'g Corp.*, 528 U.S. 32, 40 (1998) (noting that the state government would not violate the First Amendment if it decided not to provide any access to the governmental information that the respondent requested).

72. The recipients in *Sorrell* had a right to receive information only because the state law did not prohibit *all* access (e.g., disclosure for academic purposes appeared to be permissible). *Sorrell*, 131 S. Ct. at 2663–64.

73. For a discussion of these interests, see *infra* Part II.B.2–3. For a discussion of how interest analysis can resolve conflicts with competing interests, see *infra* Part IV.

74. See MILL, *supra* note 51, at 17 (“The only freedom which deserves the name, is that of pursuing our own good in our own way, so long as we do not attempt to deprive others of theirs, or impede their efforts to obtain it.”); JOHN LOCKE, THE SECOND TREATISE OF GOVERNMENT § 57, reprinted in TWO TREATISES OF GOVERNMENT 306 (Peter Laslett ed., 1988) (1689) (defining liberty as capacity to control one's person, actions, and property according to one's will and not the will of others); JOHN RAWLS, POLITICAL LIBERALISM 30–34 (1993) (“[C]itizens are free in that they conceive of themselves and of one another as having the moral power to have a conception of the good,” and understand themselves to be free to make reasonable claims to advance these conceptions.); DWORKIN, *supra* note 18, at 368–69 (defining negative liberty as “ethical independence”—the freedom to make foundational decisions “about the basis and character of the objective importance of human life” consistent with the ethical independence of others); MARTHA NUSSBAUM, SEX AND SOCIAL JUSTICE 57 (1999) (arguing the liberal tradition recognizes a duty on the part of government to respect liberty of choice); NOZICK, *supra* note 19, at 33–34 (asserting that each person has the right to live as she chooses as long as she does not harm others in certain ways).

grounds a right to liberty, they will likely disagree about the duties flowing from this right.⁷⁵

The personal liberty interest in U.S. constitutional law and tradition has most often justified *negative* duties on the part of government. Most notably, in the case of *Stanley v. Georgia*, the Court recognized a negative governmental duty not to interfere with the private consumption of information and ideas.⁷⁶ In invalidating a conviction for the possession of obscene material, the Court emphasized the importance of the right to receive information and ideas given the presence of other derivative liberty rights, such as the right to privacy and freedom of thought, which were implicated by the possession of materials in a private home.⁷⁷ Characterizing the prosecution as a “drastic invasion of personal liberties,” Justice Marshall noted in particular the “individual’s right to read or observe what he pleases,” a right “fundamental to our scheme of individual liberty.”⁷⁸

The liberty interests in *Stanley*—the interest in reading or observing whatever one pleases within the privacy of one’s home—ground the right to receive and justify a negative governmental duty not to interfere. But as the Court made clear a couple years later in *United States v. Reidel*, this right does not justify a derivative right to sell or distribute obscene materials.⁷⁹ According to the Court, *Stanley* recognized a limited right grounded in freedom of thought and the right to privacy in one’s home.⁸⁰

As a legal matter, then, the right to receive information recognized in *Stanley* can give rise only to duties that further the liberty rights to free thought and privacy. And although a right to sell might be said to further freedom of thought in the recipient,⁸¹ given the Court’s approach, the recipient’s interest alone is insufficient support for a governmental duty not to interfere with distribution of obscene material. Moreover, even if the Court were to resolve this in favor of a derivative right to sell, the liberty interests in *Stanley* were advanced in support of negative duties only. *Stanley*’s right to information is clearly a limited right to information and ideas that willing speakers seek to disseminate.

75. A number of First Amendment scholars have identified personal liberty, or autonomy, as the fundamental value underlying the First Amendment, but—like political theorists’ definitions of liberty—definitions of autonomy in First Amendment scholarship vary. See Richard H. Fallon, Jr., *Two Senses of Autonomy*, 46 STAN. L. REV. 875 (1994).

76. 394 U.S. 557 (1969).

77. *Id.* at 565.

78. *Id.* at 565, 568.

79. 402 U.S. 351 (1971).

80. *Id.* at 356.

81. In his dissent in *Roth v. United States*, 354 U.S. 476 (1957), for example, Justice Douglas suggested that laws criminalizing the distribution of obscene material violate the First Amendment because they reflect judgments about what the reader should *think*. *Id.* at 508 (Douglas, J., dissenting) (“[T]he legality of a publication [may not constitutionally] turn on the purity of thought which a book or tract instills in the mind of the reader.”).

The Court's commercial speech cases, however, contain a more positive vision of liberty that extends beyond the right to be left alone to include duties that facilitate individual choice. In *Virginia State Pharmacy Board v. Virginia Citizens Consumer Council, Inc.*, the Court held unconstitutional a law preventing pharmacists from advertising the price of prescription drugs.⁸² The suit was brought not by pharmacists, but by consumers arguing that they had a right to this information.⁸³ The Court agreed that the consumers could, in fact, assert a right to this information.⁸⁴ The opinion grounds the consumer's right in both individual and public interests in the "free flow of commercial information."⁸⁵ Among these interests is consumers' strong interest in receiving information that enables them to make decisions affecting their lives—in some cases, decisions affecting basic aspects of their well-being, such as the price of much-needed medication.⁸⁶ In other words, commercial information can further an individual's right to personal liberty by facilitating choices about how to live one's life. To withhold this information, even out of a concern that the consumer will make the wrong choice, is to frustrate the fundamental right to personal liberty.⁸⁷ Subsequent decisions rejecting restrictions on commercial speech also characterize the consumer's right to information as grounded in liberty of choice,⁸⁸ as do decisions upholding disclosure requirements in campaign finance laws.⁸⁹

Because this interest is clearly different from the First Amendment interest in advancing intellectual knowledge, the two interests justify different duties on the part of the government and others. Failure to recognize this difference can lead to confusion. For example, in the commercial speech context, Justice Rehnquist rejected the Court's "marketplace of ideas" rationale for free speech, arguing that it is not a convincing justification for protection of commercial speech because the "notion that more speech is the remedy to expose falsehood and fallacies is wholly out of place in the commercial bazaar."⁹⁰ But this objection demonstrates why the identification of the underlying interest is

82. 425 U.S. 748 (1976).

83. *Id.* at 753–54.

84. *Id.* at 757; *see also* *Zauderer v. Office of Disciplinary Counsel*, 471 U.S. 626, 651 (1985) (noting that the extension of First Amendment protection to commercial speech is justified principally by the value to consumers of the information such speech provides).

85. *Va. State Pharmacy Bd.*, 425 U.S. at 765; *see also* Robert Post, *The Constitutional Status of Commercial Speech*, 48 UCLA L. REV. 1, 4 (2000) (arguing that commercial speech is constitutionally valued because it conveys information necessary for public decision making).

86. *Va. State Pharmacy Bd.*, 425 U.S. at 763–64 ("When drug prices vary as strikingly as they do, information as to who is charging what becomes more than a convenience. It could mean the alleviation of physical pain or the enjoyment of basic necessities.").

87. *Id.* at 770.

88. *See, e.g.*, *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n*, 447 U.S. 557, 567–68 (1980) ("Even in monopoly markets, the suppression of advertising reduces the information available for consumer decisions and thereby defeats the purpose of the First Amendment.").

89. *Citizens United v. FEC*, 130 S. Ct. 876, 916 (2010) ("[D]isclosure permits citizens and shareholders to react to the speech of corporate entities in a proper way. This transparency enables the electorate to make informed decisions and give proper weight to different speakers and messages.").

90. *Cent. Hudson Gas*, 447 U.S. at 598 (Rehnquist, J., dissenting).

paramount. The interest in advancing intellectual knowledge and the interest in personal liberty will justify different duties in different contexts. The knowledge-enhancing interest only justifies duties when speech furthers intellectual freedom and progress; in that context, even false speech may further this interest. Conversely, the liberty interest justifies duties when speech furthers individual choice; when this is the case, as in the commercial speech context, the liberty interest arguably justifies a duty to ensure speech is not false or misleading. Not surprisingly, commercial speech decisions recognize that commercial speakers have a duty to ensure their speech is not false or misleading.⁹¹ Such decisions advance underlying liberty interests without posing the danger of chilling speech on matters of public concern and inhibiting the intellectual advancement of society.

In addition, unlike an interest in intellectual progress, an interest in personal liberty is more likely to justify broad public disclosure of information about human health and the environment, even when environmental and health risks are uncertain. For example, though the health risks of certain contaminants in drinking water, such as pharmaceutical drugs and pesticides, are still uncertain, an interest in personal liberty arguably justifies a governmental duty to inform people about the presence of these contaminants so that individuals may decide for themselves whether to avoid exposure. Moreover, in addition to information about uncertain health risks, personal liberty interests justify an individual's right to know information relevant to personal values and beliefs. Information about whether animals are raised in large, confined feed lots, for example, affects the choices made by a person whose ethical commitments include a commitment to the humane treatment of animals. And information about pesticide use and a product's carbon footprint is important to many people committed to biodiversity and climate change mitigation.

Furthermore, although a right to know grounded in personal liberty justifies duties to disseminate accurate information, it does not depend on the accurate use or interpretation of that information by individuals. In fact, recent studies on risk perception demonstrate that people do not necessarily change their beliefs about environmental issues, such as climate change, when they are exposed to scientific evidence.⁹² Even when scientific literacy increases, individuals may reject scientific evidence in order to ensure their individual beliefs do not conflict with attitudes and values held by the communities to

91. See *Zauderer v. Office of Disciplinary Counsel*, 471 U.S. 626, 651 (1985) (“Because the extension of First Amendment protection to commercial speech is justified principally by the value to consumers of the information such speech provides, appellant’s constitutionally protected interest in *not* providing any particular factual information in his advertising is minimal.” (citation omitted)).

92. E.g., Dan M. Kahan et al., *The Tragedy of the Risk-Perception Commons: Culture Conflict, Rationality Conflict, and Climate Change* 10 (Cultural Cognition Project Working Paper No. 89, 2011), available at <http://ssrn.com/abstract=1871503>; Molly J. Walker Wilson, *Cultural Understandings of Risk and the Tyranny of the Experts*, 90 OR. L. REV. 113 (2011).

which they belong or with which they identify.⁹³ But from the standpoint of personal liberty, individual beliefs that are not consistent with scientific “truth” may nevertheless enable individuals to live the lives they wish to lead by furthering the relationships and values they deem important.⁹⁴

Moreover, although a duty not to mislead or even a duty to disclose facts (e.g., cigarette smoking may be dangerous to your health) constrains the liberty of the speaker, it does so to enable informed choice on the part of others. In fact, if we define liberty in a positive way to include, in Professor Joseph Raz’s terms, the *conditions* for an autonomous life⁹⁵ or, in Professor Ronald Dworkin’s terms, moral commitments to equality,⁹⁶ broader duties—at least on the part of the government—are easier to justify. For example, if the ability to avoid health risks is considered a condition of autonomy, a right to know justified by an interest in personal liberty may ground more than a governmental duty to disclose the known risks of a chemical substance; it may ground broader obligations on the part of both government and industry to *generate* information about health risks through research and testing.

In law and political theory, however, these positive conceptions of liberty are controversial because they often conflict with negative definitions of liberty.⁹⁷ For example, in *Sorrell*, the state argued that its restrictions on the disclosure of prescriber information were justified by both equality and health interests because they prevented the marketing of brand-name drugs from overpowering other options. In essence, the state sought to further an end goal of richer consumer choice. But because it did so by silencing commercial speech, the majority characterized the state’s concern as a paternalistic effort to restrict speech it feared would influence doctors’ choices in detrimental ways. We might understand the Court’s objection as an objection to furthering positive liberty through means that infringe negative liberty.⁹⁸ What this illustrates is that, at some point, far-reaching disclosure duties grounded in liberty interests can begin to stretch the limits of personal liberty, especially if it

93. Kahan et al., *supra* note 92, at 10.

94. This does not mean that the government may not seek to change these beliefs or even manipulate people’s choices for their own good. In fact, some commentators have argued that government *should* play this role, and that paternalistic measures, such as disclosure of nutritional information by restaurants or graphic photographs of diseased lungs on cigarette packages, do not infringe personal liberty and may even promote it. See RICHARD H. THALER & CASS R. SUNSTEIN, *NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS* (2008). More information arguably furthers the right to personal liberty by promoting informed choice.

95. Raz, *supra* note 31, at 424–29.

96. DWORKIN, *supra* note 18, at 384–95.

97. See Frederick Schauer, *Hohfeld’s First Amendment*, 76 GEO. WASH. L. REV. 914, 916–17 (2008) (noting that Supreme Court doctrine recognizes negative speech rights and does not recognize positive rights to free speech—such as rights to the conditions that make speech more effective).

98. One way to avoid this apparent conflict is to characterize it as a conflict between the individual right to personal liberty and the public’s right to health and safety. In his dissent, Justice Breyer stresses this interest in health and safety and the government’s role in protecting it through economic regulation. *Sorrell v. IMS Health Inc.*, 131 S. Ct. 2653, 2673 (2011). The majority and dissenting opinions in *Sorrell* reflect a deep disagreement about how conflicts between interests in liberty and public health should be resolved.

is defined in the least controversial way. These kinds of rights conflicts can be difficult to resolve, but as the discussion in Part IV demonstrates, an interest analysis can help resolve them by identifying the strengths and weaknesses of competing claims to liberty in a speech context.

3. *The Right to Self-Government*

The importance of an informed public to the ideal of self-government is deeply embedded in U.S. history and law.⁹⁹ For a people to be truly self-governing, law must reflect the public will, and the public will is formulated and expressed through free and open debate by an informed citizenry. Thus, the public's interest in self-government arguably justifies a right to know that grounds duties to disclose information about government and other matters relevant to political decision making.¹⁰⁰

Supreme Court opinions regarding press access to information contain some discussion (albeit often in dissenting opinions) of a public right to know, which is ultimately justified by the public's interest in self-government. For example, Justice Powell's dissent in defense of press access to information in *Saxbe v. Washington Post Co.* explicitly characterizes the press's right to access information as a right derived from the public's right to be informed about governmental matters.¹⁰¹ And in *Richmond Newspapers, Inc. v. Virginia*,

99. Both Thomas Jefferson and James Madison are frequently cited in support of the idea that self-government is not possible without a knowledgeable public. See Letter from Thomas Jefferson to Richard Price (Jan. 8, 1789) ("Whenever the people are well-informed, they can be trusted with their own government."), available at <http://www.loc.gov/exhibits/jefferson/60.html>; Letter from James Madison to W.T. Barry (Aug 4, 1822) ("A popular Government, without popular information, or the means of acquiring it, is but a Prologue to a Farce or a Tragedy; or, perhaps both. Knowledge will forever govern ignorance: And a people who mean to be their own Governors, must arm themselves with the power which knowledge gives."), reprinted in 9 WRITINGS OF JAMES MADISON (Gaillard Hunt ed., 1900), quoted in *Bd. of Educ. v. Pico*, 457 U.S. 853, 867 (1982); see also Alexander Meiklejohn, *The First Amendment is an Absolute*, 1961 SUP. CT. REV. 245, 255 ("The First Amendment does not protect 'a freedom to speak.' It protects those activities of thought and communication by which we 'govern.'").

100. Some historical evidence indicates that the freedom of speech and press clauses were understood to protect a more fundamental right to know about governmental affairs. See David Mitchell, *Constitutional Right to Know*, 4 HASTINGS CONST. L.Q. 109, 118–34 (1977) (discussing the evidence regarding the framers' intent and general understanding in early U.S. history). But see David M. O'Brien, *The First Amendment and the Public's "Right to Know,"* 7 HASTINGS CONST. L.Q. 579, 586–89 (1979–80) (arguing that historical evidence indicates that the public had an "abstract," unenforceable right to know furthered by the First Amendment's right to speak).

101. 417 U.S. 843, 863–64 (1974) (Powell, J., dissenting) ("In seeking out the news the press therefore acts as an agent of the public at large . . . the underlying right is the right of the public generally. The press is the necessary representative of the public's interest in this context and the instrumentality which effects the public's right."). In interest-theory terms, Justice Powell's formulation of the public right to know suggests that the press clause in the First Amendment is an instrumental right; the press's interest in information is instrumentally valuable because it furthers a more significant public interest. For other opinions recognizing the public's right to know in this context, see *Pell v. Procunier*, 417 U.S. 817, 841 (1974) (Douglas, J., dissenting) (recognizing the "public's right to know protected by the free press guarantee"); *Houchins v. KQED, Inc.*, 438 U.S. 1, 30 (1978) (Stevens, J., dissenting) (arguing that press access is grounded in the "public's right to be informed").

although the justices disagreed about its exact constitutional pedigree, the public's interest in self-government appears in more than one opinion supporting the Court's judgment that the press and public have a right to access criminal trials.¹⁰²

For example, in *Richmond Newspapers*, Justice Brennan's opinion contains a view of the First Amendment that is strongly tied to an interest in self-government. For Brennan, the First Amendment has a "structural role" to play in "securing and fostering our republican system of self-government."¹⁰³ In his view, First Amendment rights ground not only duties protecting speech, but also duties protecting the public's access to information: "Implicit in this structural role is not only 'the principle that debate on public issues should be uninhibited, robust, and wide open,' but also the antecedent assumption that valuable public debate . . . must be informed."¹⁰⁴ Furthermore, although the right to know in this context is derivative of free speech rights, it does not necessarily depend on a willing speaker or a recipient who desires to speak, as is the case with the individual right to receive information grounded directly in expressive interests; it is a *public* right to know, which in turn furthers the public's interest in self-government.¹⁰⁵

The public's interest in self-government would no doubt be furthered by affirmative disclosure duties that compel government and others to provide information relevant to public debate regarding governmental affairs. But the Court has stopped far short of mandating these duties as a matter of constitutional law.¹⁰⁶ Indeed, the public's interest in self-government has really

102. 448 U.S. 555, 575 (1980) (plurality) (Burger, J.) (stating that First Amendment rights "share a common core purpose of assuring freedom of communication on matters relating to the functioning of government"); *id.* at 584 (Stevens, J., concurring) (recognizing First Amendment rights of the public and the press to "information about the operation of government"); *id.* at 588 (Brennan, J., concurring in the judgment) (asserting that the First Amendment furthers an interest in self-government by protecting communication and the "conditions of meaningful communication"). Justice Rehnquist was the sole dissenter, stressing his view that the First Amendment does not contain a right of access to governmental proceedings. *Id.* at 605–06.

103. *Id.* at 587 (Brennan, J., concurring in the judgment).

104. *Id.* (quoting *N.Y. Times Co. v. Sullivan*, 376 U.S. 254, 270 (1964)).

105. In interest-theory terms, it is a collective, rather than an individual, right. Raz would characterize the right to self-government as a collective right because self-government is a collective good and the strength of the interest in self-government depends on the cumulative interests of people as members of a particular community. RAZ, *supra* note 31, at 207. Collective rights are "a way of referring to individual interests which arise out of the individuals' membership in communities." *Id.* at 208. Because individuals have an interest in governing themselves as a result of membership in a particular community, the right to self-government is not an individual right (although an individual press right may be grounded in the community's collective interest). Raz's characterization of collective rights makes them less amenable to constitutional enforcement, but as a practical matter, individuals have sued to enforce constitutional rights that Raz would characterize as collective rights. See Jeremy Waldron, *Autonomy and Perfectionism in Raz's Morality of Freedom*, 62 S. CAL. L. REV. 1097, 1124 (1989) (critiquing Raz on this point).

106. See, e.g., *Houchins*, 438 U.S. at 11 (Burger, J.) (recognizing negative duties not to interfere with newsgathering, but rejecting the view that "the First Amendment compels others—private persons or governments—to supply information").

only justified a limited constitutional duty not to impede press and public access to judicial proceedings in criminal cases.¹⁰⁷

Although it is not the source of broad disclosure duties in constitutional law, the public right to know about governmental affairs has historically supported the recognition of broader legal duties in federal statutes, as well as state and local open records and sunshine laws. At the federal level, several statutes impose disclosure duties on federal agencies within the executive branch, but the overwhelming majority of requests are made under the Freedom of Information Act (FOIA).¹⁰⁸ In 1966, as a result of widespread concern regarding government secrecy, including denials of press requests for information from executive agencies, Congress passed FOIA to ensure that governmental agencies honored the people's right to information about governmental activities.¹⁰⁹ In addition to requiring the publication of certain agency materials, FOIA imposes obligations on federal agencies to disclose other information upon request unless the information falls within certain exemptions, such as national security and personal privacy.¹¹⁰ As the Supreme Court has recognized, FOIA's obligations are grounded in the public's interest in self-government: "FOIA is often explained as a means for citizens to know 'what the Government is up to.' This phrase should not be dismissed as a convenient formalism. It defines a structural necessity in a real democracy."¹¹¹ And because it is a "public" right, any individual may claim it in order to further the public's ultimate interest: "[T]he disclosure does not depend on the identity of the requester. As a general rule, if the information is subject to disclosure, it belongs to all."¹¹²

107. See *Ctr. for Nat'l Sec. Studies v. DOJ*, 331 F.3d 918, 934 (D.C. Cir. 2003) (First Amendment right to information limited to judicial documents in criminal trials). A broader public right of access to "public records" is, however, a recognized common law right, although the implications of the right (i.e., when it grounds a duty to disclose) are unclear and largely left to the discretion of courts. See *Nixon v. Warner Comm'ns, Inc.*, 435 U.S. 589, 598–99 (1978).

108. 5 U.S.C. § 552 (2006).

109. See HERBERT N. FOERSTEL, *FREEDOM OF INFORMATION AND THE RIGHT TO KNOW: THE ORIGINS AND APPLICATIONS OF THE FREEDOM OF INFORMATION ACT* 18–44 (1999) (discussing the history of FOIA).

110. 5 U.S.C. § 552(b). The Electronic Freedom of Information Act Amendments of 1996 (E-FOIA), Pub. L. No. 104-231, 110 Stat. 3048 (1996), further facilitate public access to agency records by requiring that agencies make some records available on the Internet and requiring that agencies create and make available indices of their major information systems. 5 U.S.C. § 552(a)(2), (g). For the EPA's online FOIA Reading Room, see http://www.epa.gov/foia/reading_rooms.html. The E-Government Act of 2002, Pub. L. No. 107-347, 116 Stat. 2899 (2002) (codified in scattered sections of Title 44), has also prompted on-line reform designed to increase public access to agency decision making. For example, the EPA is the lead agency in the development of "eRulemaking," which is designed to further public and agency access to rulemaking materials. See *EPA Docket Center*, EPA, http://www.epa.gov/docket11/role_docket_ctr.htm (last updated Sept. 12, 2012). These and other "open government" initiatives also further the White House's 2009 directive requiring federal agencies to promote transparency, participation, and accountability in government. See EPA, *Open Government Plan*, <http://epa.gov/open/> (Nov. 20, 2012).

111. *Nat'l Archives & Records Admin. v. Favish*, 541 U.S. 157, 171–72 (2004).

112. *Id.* at 172.

In the environmental context, FOIA and other disclosure laws provide citizens with access to a wealth of environmental information from private parties that agencies gather and generate in carrying out their statutory functions and obligations. The major federal statutes administered by the Environmental Protection Agency (EPA) provide the agency with authority to request information from private parties, and if requests are not honored, enforcement mechanisms are available.¹¹³ For example, under section 114 of the Clean Air Act, the EPA has authority to require regulated entities to maintain records, make reports, and “provide such other information as the Administrator may reasonably require” to carry out the EPA’s obligations under the statute.¹¹⁴ The agency also has the authority to enter upon the property of regulated entities to gather information from existing records and from the agency’s own inspection of monitoring equipment and methods.¹¹⁵ Once collected, this information is subject to disclosure by the EPA if an individual makes a FOIA request.¹¹⁶

This kind of information furthers an interest in self-government not only by informing citizens, but also by engaging citizens. For many democratic theorists, participation by individual citizens is, in fact, a necessary, or fundamental, component of democratic self-governance.¹¹⁷ Indeed, meaningful participation is essential to republican strains of democratic theory, in which citizens participate in dialogue in order to identify and further the common good.¹¹⁸

This participatory view of self-government is reflected in Supreme Court opinions, federal statutes, and numerous international human rights documents. For example, it underlies Justice Brandeis’s view of the First Amendment in his concurrence in *Whitney v. California*.¹¹⁹ Many years later, in support of a constitutional right of access to criminal trials, Justice Brennan also emphasized the importance of citizen participation in governmental affairs: the disclosure of information regarding governmental functions “ensure[s] that the

113. See, e.g., Clean Air Act § 114, 42 U.S.C. § 7414 (2006); Safe Drinking Water Act § 1445, 42 U.S.C. § 300j-4 (2006); Clean Water Act § 308, 33 U.S.C. § 1318 (2006).

114. Clean Air Act § 114(a)(1), 42 U.S.C. § 7414(a)(1).

115. See 42 U.S.C. § 7414(a)(2).

116. FOIA’s definition of “agency record,” as interpreted by the courts, is broad enough to cover many documents created by private entities, particularly those created for agency review. See 5 U.S.C. § 552(f)(2); see also P. STEPHEN GIDIÈRE III, THE FEDERAL INFORMATION MANUAL: HOW THE GOVERNMENT COLLECTS, MANAGES, AND DISCLOSES INFORMATION UNDER FOIA AND OTHER STATUTES § 5.1.2 (2006) (discussing federal case law interpreting the phrase “agency record” and noting that the judicial test includes an “agency control” requirement that may cover privately created documents submitted to an agency in the course of official business).

117. See, e.g., James Weinstein, *Participatory Democracy as the Central Value of American Free Speech Doctrine*, 97 VA. L. REV. 491, 499 (2011) (arguing that the “right to participate in democratic self-governance, both as speaker and audience, is properly referred to as the core free speech norm”).

118. See Frank I. Michelman, *Traces of Self-Government*, 100 HARV. L. REV. 4, 18–23 (1986) (discussing republicanism).

119. In cataloguing the virtues of free and open debate, he condemns an “inert people” as “the greatest menace to freedom” and characterizes public dialogue as a “political duty.” *Whitney v. California*, 274 U.S. 357, 375 (1927) (Brandeis, J., concurring).

individual citizen can effectively participate in and contribute to our republican system of self-government.”¹²⁰

In environmental law, the National Environmental Policy Act (NEPA) imposes specific disclosure obligations on the government that also further citizen participation. NEPA requires that federal agencies consider the environmental impacts of major federal actions and produce for public review an environmental impact statement when an action may cause significant environmental consequences.¹²¹ As interpreted by courts, NEPA serves two purposes: it encourages informed agency decision making and it communicates this decision-making process to the public.¹²² Information produced and disclosed under NEPA provides environmentally concerned citizens and groups with at least some of the background necessary to evaluate governmental activities affecting the environment. It is a step toward meaningful participation by citizens in their government.¹²³

4. *The Right to Health and Safety*

In addition to the various interests supporting a more general right to know—of which the environmental right to know is a part—specific interests in human health and the environment are often invoked to justify an *environmental* right to know. The interest in human health is perhaps the first interest that comes to mind when people demand the disclosure of information about *environmental* risks. Indeed, the right to know based on interests in life, health, and safety has long been recognized in positive law, most obviously in tort actions imposing liability for failure to warn consumers about the risks of a particular product.¹²⁴

120. *Globe Newspaper Co. v. Superior Court*, 457 U.S. 596, 604 (1982). Moreover, the right to know grounded in self-government may justify governmental duties to inform *particular* individuals and communities—duties that are not contingent on requests for information. For example, minority and low-income populations are often excluded from governmental decision making processes. *See* Exec. Order No. 12,898, 59 Fed. Reg. 7629 (Feb. 11, 1994), *amended by* Exec. Order No. 12,948, 60 Fed. Reg. 6381 (Feb. 1, 1995) (requiring federal agencies to ensure the equal participation of minority and low-income populations in decision making).

121. NEPA § 102(2)(C), 42 U.S.C. § 4332(2)(C) (2006); 40 C.F.R. § 1509(a)(1) (allowing an agency to prepare an environmental assessment in order to determine whether a federal action may have significant impacts requiring the preparation of an environmental impact statement).

122. *See* *Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1213 (9th Cir. 2008) (noting these two purposes). NEPA is a procedural statute; courts will review only whether an agency has adequately considered environmental consequences and will not overturn an agency decision because it is substantively inconsistent with an environmental impact statement).

123. A number of international agreements and declarations, some focused specifically on environmental matters, also explicitly recognize the individual’s right to participate in governmental decision making alongside duties to disclose the information relevant to decision making. The most notable international environmental agreement promoting procedural rights is the Convention on Access to Information, Public Participation in Decision Making, and Access to Justice in Environmental Matters, signed by thirty-five states and the European Community in 1998. *See* DONALD K. ANTON & DINAH L. SHELTON, *ENVIRONMENTAL PROTECTION AND HUMAN RIGHTS* 408 (2011). For a discussion of other international documents, see *id.* at 381–82.

124. *See generally* RESTATEMENT (THIRD) OF TORTS: PRODUCTS LIABILITY § 10 (2012).

Public awareness of environmental risks increased in the mid-twentieth century. With the publication of Rachel Carson's *Silent Spring* in 1962,¹²⁵ society began grappling with the reality that chemicals released into our air, water, and land may have long-term detrimental effects on human health and the environment. Workers grew increasingly concerned about the health effects of chemicals in the workplace. And a catastrophic chemical accident in India galvanized communities to demand legal recognition of their right to know. Through a more detailed look at these events and the laws they generated, this section analyzes the duties justified by an environmental right to know based on the right to health and safety. The analysis leads to a counterintuitive conclusion: although the right to health is often cited in support of disclosure obligations, current disclosure practices advance the right to health in very limited ways.

i. The Individual Right to Know in the Workplace and Beyond

In the 1970s, claims regarding the workers' right to know emerged as workers grew increasingly concerned about the long-term, or delayed, effects of the approximately 60,000 chemicals in the workplace.¹²⁶ These long-term risks were difficult to discover and employers had little incentive to disclose them.¹²⁷ In the Philadelphia area, occupational health and safety groups started a right-to-know movement, eventually petitioning the Occupational Health and Safety Administration (OSHA) for rules that would impose obligations on employers to educate their workers about health risks.¹²⁸ The movement did not wait for federal action, but lobbied states and municipalities for laws imposing informational duties on employers. By the mid-1980s, twenty-eight states and sixteen municipalities had passed right-to-know laws.¹²⁹ And in 1983, OSHA promulgated a final rule, the Hazard Communication Standard, which required employers to assess and communicate the risks of workplace chemicals to employees and to provide safety training and warning labels where chemicals are stored.¹³⁰

As these laws illustrate, an employer's duty to inform employees who are directly exposed to hazardous chemicals is clearly connected to workers' health interests. But the right of individuals to know about hazardous chemicals in their communities is more difficult to link to health concerns unless exposure is indeed a risk. In 1984, however, the movement for the community right to know gained momentum when a catastrophic chemical release from a U.S. pesticide manufacturing plant in Bhopal, India, exposed thousands of people to

125. RACHEL CARSON, *SILENT SPRING* (1962).

126. SUSAN G. HADDEN, *A CITIZEN'S RIGHT TO KNOW: RISK COMMUNICATION AND POLICY* 20-21 (1989).

127. *Id.* at 20.

128. *Id.* at 21.

129. *Id.* at 22.

130. *Id.* A few years later, OSHA extended the standard's coverage to most non-public commercial entities. *Id.* at 23.

a highly toxic gas, methyl isocyanate.¹³¹ Considered the worst industrial accident in history, the Bhopal release reportedly killed over 15,000 people within one month and affected more than 500,000 people.¹³² The devastating environmental and health effects connected to the massive amounts of hazardous wastes at the site will continue well into the future.

The Bhopal disaster heightened public interest in the risks of chemical releases and prompted congressional bills intended to provide the public with information about hazardous chemicals in their communities in order to improve their capacity to respond to releases.¹³³ Because this coincided with debate about the reauthorization of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), the right-to-know legislation, titled the Emergency Planning and Community Right-to-Know Act (EPCRA),¹³⁴ became part of the legislation reauthorizing CERCLA in 1986.¹³⁵ As its title reflects, EPCRA recognizes a right to know justified by health and safety interests.

But given the congressional focus on the acute health effects resulting from short-term exposure to large chemical releases, the duties grounded in the right were designed primarily to further health and safety interests in the specific context of emergency preparation and response.¹³⁶ The Act requires the establishment of state and local bodies charged with preparing local emergency response plans.¹³⁷ Facilities must report threshold levels of certain “extremely hazardous substances” that are present on-site and released into the environment to community response bodies. In addition, facilities must report releases of more than 600 toxic chemicals used in excess of threshold quantities to state authorities and the EPA.¹³⁸ Based on the toxic release data submitted, the EPA is required to maintain a Toxics Release Inventory (TRI) in a form accessible to the public.¹³⁹

Since 1986, Congress has expanded the TRI’s coverage, most notably by requiring data on waste management and source-reduction and recycling

131. See MICHAEL E. KRAFT ET AL., *COMING CLEAN: INFORMATION DISCLOSURE AND ENVIRONMENTAL PERFORMANCE* 11 (2011).

132. *Id.*

133. *Id.* at 11–12; see also ENVTL. LAW INST., *COMMUNITY RIGHT TO KNOW DESKBOOK* 103 (1988) (reprinting the legislative history of the Emergency Planning and Community Right-to-Know Act (EPCRA) in which the Bhopal disaster is mentioned as the catalyst for legislation).

134. Emergency Planning and Community Right-to-Know Act of 1986, Pub. L. 99-499, 100 Stat. 1728 (codified as amended at 42 U.S.C. §§ 11001–11050 (2006)).

135. Superfund Amendments and Reauthorization Act of 1986, Pub. L. 99-499, 100 Stat. 1613.

136. See HADDEN, *supra* note 126, at 26–27 (discussing the legislative history of EPCRA).

137. 42 U.S.C. §§ 11001, 11003.

138. 42 U.S.C. §§ 11002, 11004, 11023. By 2009, thousands of facilities were required to report on nearly 650 chemicals that these facilities either transfer or release. See KRAFT ET AL., *supra* note 131, at 12.

139. 42 U.S.C. §§ 11023, 11044. For an in-depth analysis of EPCRA, see Sidney M. Wolf, *Fear and Loathing about the Public Right to Know: The Surprising Success of the Emergency Planning and Community Right-to-Know Act*, 11 J. LAND USE & ENVTL. L. 217, 221–39 (1995–1996).

activities by covered facilities.¹⁴⁰ In 1999, the EPA added certain persistent, bioaccumulative, and toxic (PBT) chemicals to the list of chemicals subject to the TRI and lowered the reporting thresholds for some previously listed PBT chemicals.¹⁴¹ And in 2010, the agency added sixteen chemicals that are potential human carcinogens to the list.¹⁴² Even with these expansions, many facilities are not covered either because they fall below the threshold reporting requirements or because they are specifically exempted.¹⁴³

Reporting duties under EPCRA therefore further health and safety interests in limited ways. They help communities plan for accidental releases of some chemicals by disclosing quantities of chemical substances and the methods industry uses to dispose of these chemicals. In addition, according to studies, the disclosure of this information has, in some cases, prompted companies to reduce the use of listed chemicals in order to avoid the negative public reaction that companies feared would follow disclosure.¹⁴⁴

The information reported under the TRI does not, however, enable individuals to assess the health risks created by the routine disposal or release of listed chemicals. In fact, TRI data, obtained from EPA's searchable Internet database, TRI Explorer, appear with the following warning:

Users of TRI information should be aware that TRI data reflect releases and other waste management activities of chemicals, not whether (or to what degree) the public has been exposed to those chemicals. Release estimates alone are not sufficient to determine exposure or to calculate potential adverse effects on human health and the environment The determination of potential risk depends upon many factors, including the toxicity of the chemical, the fate of the chemical, and the amount and duration of human or other exposure to the chemical after it is released.¹⁴⁵

As the disclaimer acknowledges, the information available to the public does not include critical information about both hazard (the level of toxicity and

140. Pollution Prevention Act of 1990, § 6607, 42 U.S.C. § 13106 (2006).

141. Persistent Bioaccumulative Toxic (PBT) Chemicals; Lowering of Reporting Thresholds for Certain PBT Chemicals; Addition of Certain PBT Chemicals; Community Right-to-Know Toxic Chemical Reporting, 64 Fed. Reg. 58666 (Oct. 29, 1999) (to be codified at 40 C.F.R. pt. 372); *see also TRI PBT Chemical List*, U.S. EPA, http://www.epa.gov/tri/trichemicals/pbt%20chemicals/pbt_chem_list.htm (last visited Oct. 15, 2012) (listing sixteen PBT chemicals and four PBT chemical compound categories subject to TRI reporting).

142. Addition of National Toxicology Program Carcinogens; Community Right-to-Know Toxic Chemical Release Reporting, 75 Fed. Reg. 72,727 (Nov. 26, 2010) (to be codified at 40 C.F.R. pt. 372).

143. *See* 40 C.F.R. §§ 372.22–23 (2010).

144. *See* KRAFT ET AL., *supra* note 131, at 53–54; *see also* JAMES T. HAMILTON, REGULATION THROUGH REVELATION: THE ORIGIN, POLITICS, AND IMPACTS OF THE TOXICS RELEASE INVENTORY PROGRAM 250 (2005) (“Case studies demonstrate that some companies changed their actions specifically because of the threat of public scrutiny or the contacts from concerned citizens.”). To the extent the right to know is justified by its pollution-reducing effects, it relies on the way in which the individual right instrumentally serves the interests of the public.

145. This disclaimer appears with information retrieved as part of a search. The TRI Explorer is available at <http://www.epa.gov/triexplorer/>. TRI data is also available, along with information collected under other environmental statutes, on the EPA's Envirofacts website at <http://www.epa.gov/enviro/index.html>.

potential effects) and exposure (the location, extent, and pathways of exposure).¹⁴⁶ Raw data about quantities of chemicals and waste management practices do not communicate information regarding health risks. As many commentators have noted, without information assessing health risks, disclosure does not tell individuals what they actually need to know to protect their health.¹⁴⁷

Because EPCRA does not preempt state and local legislation, laws at the local and state levels can and do impose additional requirements.¹⁴⁸ California's Safe Drinking Water and Toxic Enforcement Act, popularly known as Proposition 65, contains an ambitious right-to-know law that imposes a duty to warn before "knowingly and intentionally expos[ing] any individual to a chemical known to the state to cause cancer or reproductive toxicity."¹⁴⁹ The ballot initiative, as proposed to voters in 1986, contained a declaration of rights, including the right "[t]o be informed about exposures to chemicals that cause cancer, birth defects, or other reproductive harm."¹⁵⁰ Despite opponents' impressive efforts to defeat the initiative, California voters approved it by a margin of 63 percent to 37 percent.¹⁵¹ The message was clear: an individual's

146. TRI data is also "incomplete" in that not all chemicals and facilities are covered, and it does not distinguish between hazardous releases and "safe" waste management. See Kathryn E. Durham-Hammer, *Left to Wonder: Reevaluating, Reforming, and Implementing the Emergency Planning and Community Right-to-Know Act of 1986*, 29 COLUM. J. ENVTL. L. 323, 334 (2004) (noting that the "list of covered chemicals includes only one percent of the 80,000 toxic chemicals currently used in industry"); Alexander Volokh, *The Pitfalls of the Environmental Right to Know*, 2002 UTAH. L. REV. 805, 829-32. In addition to being incomplete, TRI data has been criticized as inaccurate because it may "double count" some releases and transfers, and it is not uniformly reported given flexible data estimation standards, lack of monitoring and enforcement, and changes in agency reporting guidances. See *id.* at 815-19, 833. Some of these concerns, including lack of uniformity and double counting, are addressed in a publication available on the TRI's web site. See EPA, THE TOXICS RELEASE INVENTORY AND FACTORS TO CONSIDER WHEN USING TRI DATA (2012), available at <http://www.epa.gov/tri/triprogram/FactorsToConPDF.pdf>.

147. See, e.g., HADDEN, *supra* note 126; KRAFT ET AL., *supra* note 131, at 186-88. The EPA recently made available to the public the Risk-Screening Environmental Indicators model (RSEI), a computer-based screening tool, that uses TRI data along with estimates of toxicity and exposure (based on simplified assumptions) to analyze chronic human health risks. For more information, see *Risk-Screening Environmental Indicators (RSEI)*, EPA, <http://www.epa.gov/opptintr/rsei/> (last visited Oct. 15, 2012). The EPA emphasizes, however, that the tool should be used for "screening-level activities," such as analysis of trends, and should not be used to evaluate local or individual risks. See *id.* ("RSEI does not provide a risk assessment so it is inappropriate to use it to: conclude that a particular chemical release is causing harm to a specific population or location; draw conclusions or make decisions about the risk posed by any particular facility; draw conclusions about individual risk or generate quantitative risk estimates.").

148. 42 U.S.C. § 11041(a)(1) (2006) (stating explicitly that EPCRA does not preempt state or local law); KRAFT ET AL., *supra* note 131, at 13 (noting that many state and local laws require facilities to report information that EPCRA does not require).

149. CAL. HEALTH & SAFETY CODE § 25249.6 (West 2012).

150. Text of Proposition 65, Safe Drinking Water and Toxic Enforcement Act of 1986, § 1(b), available at http://library.uchastings.edu/ballot_pdf/1986g.pdf. Exemptions from the disclosure requirement are difficult to establish. The person responsible for the exposure must show that exposure at specified levels poses no significant risk. CAL. HEALTH & SAFETY CODE § 25249.10(c).

151. See *Approval Percentages of Initiatives Voted Into Law*, CAL. SECRETARY OF STATE (2012) <http://www.sos.ca.gov/elections/ballot-measures/pdf/approval-percentages-initiatives.pdf>; see also

interest in living a healthy life is a sufficient reason to hold others to a duty to inform her when she has been exposed to chemicals that cause chronic health effects.

The environmental right to know did not seriously attract the attention of federal regulators until 1997 when the Environmental Defense Fund (EDF) published a report entitled *Toxic Ignorance*.¹⁵² According to the report, little progress had been made since the enactment in 1976 of the Toxic Substances Control Act (TSCA); twenty years later, the public still lacked access to basic toxicity information for nearly 75 percent of the high-volume chemicals in commercial use.¹⁵³ As a result of the EDF study, the EPA conducted its own study, which largely confirmed the EDF's finding regarding lack of available data.¹⁵⁴ According to the EPA study, the public had access to complete screening-level data regarding the health and environmental effects for only 7 percent of the approximately 2800 high-production-volume (HPV) chemicals in commercial use.¹⁵⁵ In the face of such overwhelming ignorance regarding health and environmental risk, the EDF study emphasized the need for information by recommending reforms grounded in the right to know *what we don't know*.¹⁵⁶ The EDF argued that the right to know justifies a duty not only to inform individuals of known risks, but also to inform individuals of *unknown* risks—for example, a duty to report releases of major chemicals for which the government lacks the basic data required for safety screening.¹⁵⁷

To respond to these concerns, the federal government launched the Chemical Right-to-Know Initiative in 1998.¹⁵⁸ As part of this initiative, the

KRAFT ET AL., *supra* note 131, at 13 (stating that the initiative's opponents outspent its supporters by a ratio of six to one).

152. ENVTL. DEF. FUND, *TOXIC IGNORANCE: THE CONTINUING ABSENCE OF BASIC HEALTH TESTING FOR TOP-SELLING CHEMICALS IN THE UNITED STATES* (1997), available at http://www.edf.org/documents/243_toxicignorance.pdf [hereinafter *TOXIC IGNORANCE*].

153. *Id.* at 7.

154. EPA, OFFICE OF POLLUTION PREVENTION & TOXICS, *CHEMICAL HAZARD DATA AVAILABILITY STUDY: WHAT DO WE REALLY KNOW ABOUT THE SAFETY OF HIGH PRODUCTION VOLUME CHEMICALS?* 7 (1998), available at <http://www.epa.gov/hpv/pubs/general/hazchem.pdf> (“[W]hile the conclusions of previous studies and EPA’s current assessment are quantitatively different, they are consistent with the view that significant basic testing requirements remain to be filled for the HPV chemicals.”). Although an industry study conducted by the Chemical Manufacturers Association concluded that more health data was available, it nevertheless acknowledged that it fell far short of what is necessary. *Id.*

155. *Id.* at 6 (summarizing the study’s findings that of the 2863 HPV chemicals, 43 percent lacked all basic screening, and complete screening data was available for only 7 percent). HPV chemicals are defined as chemicals produced or imported in quantities of one million pounds or more per year in the United States. *Id.* at 2. “Complete” screening-level data generally requires testing in six basic endpoints: acute toxicity; chronic toxicity; developmental and reproductive toxicity; mutagenicity; ecotoxicity; and environmental fate. *Id.* These tests and other information are called the Screening Information Data Set (SIDS). *Id.* SIDS is not a sufficient basis for a reliable human health risk assessment, but can provide enough information regarding toxicity to identify the relative hazards of a chemical and indicate whether further testing is necessary. *Id.* at 3.

156. *TOXIC IGNORANCE*, *supra* note 152, at 42.

157. *See id.* at 44.

158. EPA, *CHEMICAL RIGHT TO KNOW, FREQUENTLY ASKED QUESTIONS 1* (Mar. 1999), available at <http://www.epa.gov/HPV/pubs/general/q&asht.pdf> [hereinafter *CHEMICAL RIGHT TO KNOW*].

EPA expanded the TRI to include information on high-priority PBT chemicals and announced the HPV Chemical Challenge Program, a program designed to encourage industry to “sponsor” HPV chemicals by voluntarily submitting summaries of existing data and conducting tests when the basic data necessary for safety screening are unavailable.¹⁵⁹ The EPA can then use this basic data to characterize potential hazards to human health and the environment and, when exposure data are available, to develop risk-based prioritizations for chemicals.¹⁶⁰ From the beginning, the program was designed to provide information not only to the government, but also to the public.¹⁶¹ In fact, a 1999 fact sheet on the initiative describes it as improving on TRI data by ensuring that individuals have access to a base level of hazard data on HPV chemicals in their communities.¹⁶²

The program is now part of the EPA’s comprehensive effort to enhance its chemicals management program under existing authorities, such as the TSCA.¹⁶³ To date, more than 2200 chemicals of the approximately 2800 HPV chemicals have been sponsored by companies or screened through international processes.¹⁶⁴ And the EPA has issued test rules under section 4 of the TSCA for thirty-five of the unsponsored chemicals.¹⁶⁵ The information obtained voluntarily and through the EPA’s regulatory efforts is accessible through the new Chemical Data Access Tool or the High Production Volume Information System (HPVIS).¹⁶⁶

159. *Id.* at 2; *see also High Production Volume (HPV) Challenge*, EPA, <http://www.epa.gov/hpv> (last visited Oct. 15, 2012). From 2007 to 2009, to make decisions regarding risk-based prioritizations, the EPA combined hazard data from the HPV challenge program with use and exposure data from the 2006 TSCA Inventory Update Reporting. These determinations prioritized chemicals for further data collection and management. *See High Production Volume Information System (HPVIS)*, EPA, <http://www.epa.gov/hpv/hpvis/index.html> (last visited Oct. 15, 2012). For easy access to the risk-based prioritizations, *see Chemical Characterization Documents*, EPA, http://iaspub.epa.gov/oppt/hv/existchem_hpv_prioritizations.INDEX_HTML (last visited Oct. 15, 2012).

160. *See Chemical Hazard Characterizations*, EPA, <http://www.epa.gov/oppt/existingchemicals/pubs/hazard.html> (last visited Oct. 15, 2012).

161. *See* CHEMICAL RIGHT TO KNOW, *supra* note 158, at 2 (“It is EPA’s goal to assure that the public has access to health and environmental effects data for chemicals which are present in their environment. Improving EPA’s and the public’s understanding of the hazards of chemicals most commonly used in this country is a priority of this program.”).

162. *Id.* at 4.

163. *See Enhancing EPA’s Chemical Management Program*, EPA, <http://www.epa.gov/oppt/existingchemicals/pubs/enhanchems.html> (last visited Oct. 15, 2012).

164. *High Production Volume (HPV)*, EPA, Challenge, <http://www.epa.gov/hpv> (last visited Oct. 14, 2012).

165. Testing of Certain High Production Volume Chemicals, 71 Fed. Reg. 13,707 (Mar. 16, 2006); Revocation of TSCA Section 4 Testing Requirements for Coke-Oven Light Oil 71 Fed. Reg. 71,058 (Dec. 8, 2006); Testing of Certain High Production Volume Chemicals, Second Group of Chemicals, 76 Fed. Reg. 1067 (Jan. 7, 2011).

166. The Chemical Data Access Tool is available at http://java.epa.gov/oppt_chemical_search/, and the HPVIS is available at <http://www.epa.gov/hpv/hpvis/index.html>. These online tools further the current Administration’s stated commitment to increase access to and transparency in chemical information as part of its comprehensive effort to enhance its chemicals management program. *See Increasing Transparency in TSCA*, EPA, <http://www.epa.gov/oppt/existingchemicals/pubs>

In its current form, however, the available information tells individuals very little about the health and environmental risks of a particular chemical. The hazard characterizations available for a fraction of the HPV chemicals are “evaluation[s] of the quality and completeness of the data set” provided by companies.¹⁶⁷ The documents containing the characterizations explicitly state that “[t]hey are not intended to be definitive statements regarding the possibility of unreasonable risk of injury to health or the environment.”¹⁶⁸ Moreover, despite agency statements that this information will be useful to the public,¹⁶⁹ the documents contain the following disclaimer:

These hazard characterizations are technical documents intended to inform subsequent decisions and actions by [the EPA’s Office of Pollution Prevention and Toxics]. Accordingly, the documents are not written with the goal of informing the general public. However, they do provide a vehicle for public access to a concise assessment of the raw technical data on HPV chemicals and provide information previously not readily available to the public.¹⁷⁰

By facilitating scientific research, these disclosure measures may advance knowledge and therefore further the right to know grounded in an interest in intellectual progress.¹⁷¹ But most people will not be able to translate highly

/transparency.html (last visited Oct. 15, 2012). According to the HPVVIS’s web site, the database “contains over 340 submissions, representing almost 900 chemical substances, either as a single chemical submission or as a member of a chemical category.” *High Production Volume Information System (HPVIS)*, EPA, <http://www.epa.gov/hpvis/index.html> (last visited Oct. 15, 2012).

167. EPA, SCREENING-LEVEL HAZARD CHARACTERIZATION FOR NITROGLYCERIN (CASRN 55-63-0) 1 (Sept. 2010), available at http://www.epa.gov/chemrtk/hpvis/hazchar/55630_%20Nitroglycerin_September_2010.pdf.

168. *Id.*

169. See *High Production Volume (HPV) Challenge*, EPA, <http://www.epa.gov/chemrtk/index.htm> (last visited Oct. 15, 2012) (“Access to HPV chemical information enables the public to participate in environmental decision making at all levels—federal, state, and local.”).

170. EPA, SCREENING-LEVEL HAZARD CHARACTERIZATION FOR NITROGLYCERIN, *supra* note 167, at 2.

171. In the last few years, the EPA has made existing scientific data on chemicals easier for the scientific and research communities to access. For example, the EPA has an online “warehouse” called “ACToR” that allows anyone to search all publicly available data on chemical toxicity. See *ACToR*, EPA, <http://actor.epa.gov/actor/faces/ACToRHome.jsp> (last visited Oct. 15, 2012) (“ACToR aggregates data from over 500 public sources on over 500,000 environmental chemicals searchable by chemical name, other identifiers and by chemical structure.”). ACToR facilitates access to data on chemical toxicity by allowing researchers to search multiple databases, including federal agency databases, state databases, and academic databases, for data on specific chemicals and chemically similar sets of compounds. See *ACToR, Basic Info*, EPA, <http://actor.epa.gov/actor/faces/BasicInfo.jsp> (last visited Oct. 15, 2012). The EPA has also improved its Integrated Risk Information System (IRIS), a database that contains qualitative and quantitative information relevant to the first two steps in the risk assessment process: hazard identification and dose response evaluation. See *Integrated Risk Information System (IRIS), Frequent Questions*, EPA, http://www.epa.gov/IRIS/help_ques.htm#whatiris (last visited Oct. 15, 2012). When combined with specific exposure information, the information in this database (for more than 540 chemical substances) can contribute to risk assessments that inform policy making. The EPA recently implemented reforms designed to streamline the process and ensure greater input and transparency. See EPA, Press Release, *EPA Strengthens Key Scientific Database to Protect Public Health* (July 12, 2011), <http://yosemite.epa.gov/opa/admpress.nsf/d0cf6618525a9efb85257359003fb69d/a3fcd60838197067852578cb00666c4d>. The integration of IRIS into the EPA’s new Health and

technical information, such as technical summaries of tests conducted on animals, into meaningful conclusions about how to protect their health and safety. At least at this stage, the available information does not tell individuals what they need to know to avoid health risks. And because this information does not help individuals lead healthier lives, a duty to disclose this information cannot be justified by the right to health.

ii. *The Right to Know What?*

The conclusion that current disclosure policies do not actually further health interests is somewhat disheartening. Arguably, an individual's right to health and safety provides a strong—perhaps the strongest—justification for informational duties regarding environmental hazards. Even if one person's individual interest is insufficient to justify imposing duties on industry and government, the individual right to know derived from the right to health theoretically furthers everyone's interest in obtaining information about health risks. But if we were to create a legal duty that would actually inform the public about risks to health and the environment, what would the duty entail? At the very least, the information would have to be accurate and easily understandable. In addition, to further the interest in individual health, people would have to use this information to live healthier lives. For a number of reasons, all these objectives are difficult to achieve.

As discussed above, people need more than data on the quantities of chemicals produced and released to assess the nature and extent of potential health risks. Scientists generally reach conclusions about health risks as a result of a four-step risk assessment process.¹⁷² In the hazard identification stage, the chemical substance of potential concern is identified, along with the potential health risks caused by the substance.¹⁷³ In the next phase, often referred to as dose-response assessment, the toxicity of the substance is assessed by identifying the health effects at different doses, or exposures, to the substance.¹⁷⁴ In addition to a toxicity assessment, risk assessors must conduct an exposure assessment, a process designed to understand how a chemical enters the human body and if and how it is absorbed into the bloodstream by identifying potential pathways of human exposure, exposure concentrations,

Environmental Research Online (HERO) database, available at <http://hero.epa.gov/>, is a promising step toward transparency in the communication of information regarding health risks to the public. The summaries of recently reviewed chemical substances contain critical exposure information (how a chemical is used and released into the environment), but information regarding toxicity is not summarized in plain language. *See id.*

172. *See Human Health Risk Assessment*, EPA, <http://epa.gov/riskassessment/health-risk.htm> (last visited Oct. 15, 2012); *see also* David A. Belluck & Sally L. Benjamin, *Human Health Risk Assessment*, in *A PRACTICAL GUIDE TO UNDERSTANDING, MANAGING, AND REVIEWING ENVIRONMENTAL RISK ASSESSMENT REPORTS* 29, 31 (Sally L. Benjamin & David A. Belluck eds., 2001).

173. Belluck & Benjamin, *supra* note 172, at 32.

174. *Step 2—Dose-Response Assessment*, EPA, <http://epa.gov/riskassessment/dose-response.htm> (last visited Oct. 15, 2012); *see also* Belluck & Benjamin, *supra* note 172, at 53.

and chemical intakes and uptakes.¹⁷⁵ The final step in the process is the risk characterization, during which toxicity and exposure data are combined to calculate carcinogenic and noncarcinogenic risks.¹⁷⁶ For carcinogens, risk is typically expressed in terms of the probability of an individual contracting cancer assuming a lifetime of exposure at a specified level.¹⁷⁷ Noncarcinogenic risks such as reproductive and developmental effects are typically expressed according to the threshold at which such health effects occur assuming certain levels of ingestion or inhalation of the substance.¹⁷⁸

By the time risk is expressed in terms of numerical probability or threshold exposure levels, a considerable number of value judgments have been made. In order to arrive at the final risk characterization, risk assessors make numerous choices about how to deal with the uncertainty that plagues risk analysis. Uncertainty results from lack of data and from variability in the data.¹⁷⁹ For example, toxicity assessments require scientists to extrapolate human dose-response relationships from data based on animal studies, and sometimes to extrapolate the effects of chronic long-term exposure from data based on acute exposure.¹⁸⁰ In addition, risk assessors often lack critical information necessary to assess exposure, including data about chemical pathways, concentrations, and intake and uptake information,¹⁸¹ as well as information regarding a chemical's cumulative and synergistic (resulting from interactions with other chemicals) effects. In some cases, more data can lessen the uncertainty, but not in cases of variability.¹⁸² Exposure assessments are based on some estimation of the average person, but people differ in age, weight, and other critical factors, and some populations, such as pregnant women and children, are more sensitive than others.¹⁸³ Environmental conditions, such as weather, wind, and rainfall, also vary and affect exposure.¹⁸⁴

The point is that value judgments—choices about how to deal with this uncertainty—are made throughout the risk assessment process. These choices are not scientific interpretations of data; they are policy choices and many of them involve moral judgments. For example, in assessing toxicity (the dose-response relationship), the EPA uses an assumption that chemical carcinogens

175. Belluck & Benjamin, *supra* note 172, at 41–51.

176. *Id.* at 67.

177. *Id.* at 67–69.

178. *Id.* at 66, 69.

179. Maxine Dakins & Carol Griffin, *Uncertainty Analysis*, in *A PRACTICAL GUIDE TO UNDERSTANDING, MANAGING, AND REVIEWING ENVIRONMENTAL RISK ASSESSMENT REPORTS*, *supra* note 172, at 413, 415.

180. *Id.* at 416.

181. *Id.* at 415.

182. *Id.*

183. *Id.*

184. *Id.*

pose a risk at any dose unless evidence exists to the contrary.¹⁸⁵ Consequently, the agency uses a linear approach to estimating response even to low doses unless evidence exists that the carcinogen does not cause cancer below a particular threshold.¹⁸⁶ This default assumption reflects a value judgment that a precautionary approach is best in assessing the health risks of known carcinogens. Similarly, when an agency risk assessment evaluates exposure based on an “average” person, it incorporates a value judgment that risk assessments should not be based on exposures to the most susceptible or vulnerable populations.¹⁸⁷

As practiced by the EPA, quantitative risk assessment does include a number of techniques to analyze and account for uncertainty, which can then be expressed in various ways, such as defining a range within which the risk falls.¹⁸⁸ But incorporating uncertainty into the quantitative risk characterization complicates policy making. For example, it makes the reduction of risk difficult to quantify in the cost-benefit analyses required for proposed regulations. Interpreting numeric expressions of uncertainty also requires substantial background knowledge, which most people do not have. As a result, risk is communicated to the public in ways that obscure this uncertainty. In California, for example, the following language is used in warnings regarding exposure to carcinogens: “WARNING: This product contains a chemical known to the state of California to cause cancer.”¹⁸⁹ This warning does not communicate the numeric risk level required by law (more than a one-in-100,000 risk) or the uncertainty involved in calculating the risk.¹⁹⁰ Without knowing the risk level, most people probably overestimate the risk conveyed by the warning. And even if the warning contained the risk level, it would still fail to communicate all the value judgments behind the numeric determination.

In short, any communication regarding the health risks of toxic chemicals will fail to reflect the complicated mixture of science and policy inherent in the risk assessment process. As scholars of environmental policy have demonstrated, the limitations of science and the value judgments inherent in the process are not at all obvious to individuals without expert knowledge.¹⁹¹ In addition, these limitations (and the public’s limited understanding of them) make science-based decisions, such as risk characterizations, susceptible to bias and political manipulation. Policy makers may make certain (undisclosed) value judgments in the face of scientific uncertainty in order to support a preferred policy or even deliberately manipulate scientific evidence to support a

185. *Risk Assessment for Carcinogens*, EPA, <http://www.epa.gov/ttnatw01/toxsource/carcinogens.html> (last visited Oct. 15, 2012).

186. *Id.*

187. Dakins & Griffin, *supra* note 179, at 416.

188. *Id.* at 418–21.

189. CAL. CODE REGS. tit. 27, § 25603.2(a) (2012).

190. CAL. CODE REGS. tit. 27, § 25703(b).

191. See, e.g., Wendy E. Wagner, *The Science Charade in Toxic Risk Regulation*, 95 COLUM. L. REV. 1613, 1617 (1995).

predetermined policy.¹⁹² In either case, the health information conveyed to the public is of little use in promoting the right to health or any other interest underlying the right to know.

Finally, even if information about health risks were based on sound science and inherent uncertainty were disclosed, the lay consumer of this information would still face problems of translation that are inherent in science. The objectivity people associate with science is not truth; scientists claim theories are supported or useful, rather than “true.”¹⁹³ Judgments regarding which methods are reliable are, at least in part, value judgments.¹⁹⁴ And because a correlation between A and B does not establish that A causes B, studies that show a correlation between variables do not establish why that correlation is important.¹⁹⁵ But people routinely perceive science as objective and do not always understand the limits of its conclusions. When combined with a general tendency to avoid risk, these translation problems can frustrate the use of information to further individual health. And if the dissemination of health information does not actually further individual health, the environmental right to know is not justified by the right to health.¹⁹⁶

These concerns do not undermine the environmental right to know, but they do suggest that the link between disclosure obligations and health and safety interests is not a given, and the right to know sometimes gains greater force from other interests, such as the interest in advancing intellectual knowledge and the interest in self-government. Arguments for reform that call for expansion of disclosure duties under current laws, such as EPCRA and the TSCA, could be strengthened by connecting these duties to the interests that best support them. For example, a right to know grounded in the interest in advancing knowledge clearly justifies the dissemination of scientific information regarding environmental risk, although it does not impose a duty to translate this information into plain language. Moreover, it arguably justifies imposing duties on industry and government to produce data, for example, by testing chemicals.

In addition, a right to know grounded in self-government justifies duties to inform the public about governmental actions so individuals may participate in environmental decision making. To further this interest, the government clearly has a duty to educate the public about *how* it assesses risk and the role risk assessment plays in regulatory decisions. Current “open government” initiatives that make information available on the Internet claim to advance

192. *Id.* at 1640–50.

193. ROBIN FELDMAN, *THE ROLE OF SCIENCE IN LAW* 138 (2009).

194. *Id.* at 123.

195. *Id.* at 144.

196. In addition to furthering the underlying interest, a duty is justified only in the absence of competing considerations that override that interest. The *individual* right to health may, in some cases, compete with *public* health considerations. For example, communicating information about the risks of vaccines may result in fewer vaccinations. Although the risk of disease may be small for an individual who does not receive the vaccination, fewer vaccinations may threaten the overall public welfare.

public participation.¹⁹⁷ But although these initiatives may further the participation of environmental groups, industry, and others with access to expert knowledge, information regarding the uncertainties and concomitant policy judgments made in the risk assessment process must be translated into plain language to further broader public understanding and democratic participation.

5. *The Right to a Healthy Environment*

Like the right to health, the right to a healthy environment may seem like a strong foundation for the environmental right to know. Knowledge about the condition of the environment is clearly necessary to protect and maintain a healthy environment. But although the right to a healthy environment has enjoyed some legal recognition, most notably in state constitutional law,¹⁹⁸ courts have rarely relied on it to impose specific duties on government and others.¹⁹⁹ And legal and political claims regarding the environmental right to know have not invoked the interest in a healthy environment.

From the perspective of the interest theory of rights, this is not surprising. A healthy environment is a collective (public) good, and the expansive duties required to protect it are difficult, if not impossible, to justify based on a single

197. See, e.g., *The HERO Database*, EPA, <http://hero.epa.gov> (last visited Oct. 15, 2012) (“HERO is part of the open government directive to conduct business with transparency, participation, and collaboration. Every American has the right to know the data behind EPA’s regulatory process. Through HERO, the public can participate in the decision-making process.”).

198. See ILL. CONST. art. XI, § 2 (“Each person has the right to a healthful environment. Each person may enforce this right against any party, governmental or private, through appropriate legal proceedings subject to reasonable limitation and regulation as the General Assembly may provide by law.”); PA. CONST. art. I, § 27 (“The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment.”); MONT. CONST. art. II, § 3 (“All persons are born free and have certain inalienable rights. They include the right to a clean and healthful environment”); HAW. CONST. art. XI, § 9 (“Each person has the right to a clean and healthful environment, as defined by laws relating to environmental quality, including control of pollution and conservation, protection and enhancement of natural resources.”); MASS. CONST. amends. art. XCVII (“The people shall have the right to clean air and water, freedom from excessive and unnecessary noise, and the natural, scenic, historic, and esthetic qualities of their environment”). Most state constitutions contain policy statements regarding the environment, but only a handful recognize a “right” to a healthy environment. See Michelle Bryan Mudd, *A “Constant and Difficult Task”: Making Local Land Use Decisions in States with a Constitutional Right to a Healthful Environment*, 38 *ECOLOGY L.Q.* 1, 3 n.3 (2011).

199. See, e.g., *Ill. Pure Water Comm., Inc. v. Dir. of Pub. Health*, 470 N.E.2d 988, 992 (Ill. 1984) (refusing to create a “fundamental” right to a healthful environment). *But see* *Mont. Env’tl. Info. Ctr. v. Dep’t of Env’tl. Quality*, 988 P.2d 1236, 1246–49 (Mont. 1999) (holding that the right to a healthful environment is a fundamental right). Early drafts of NEPA actually recognized a *fundamental* individual right to a healthy environment in Section 101(c): “The Congress recognizes that each person has a fundamental and inalienable right to a healthful environment.” Statement of the Managers on the Part of the House, CONF. REP., 1156 CONG. REC. 39702 app. (daily ed. Dec. 17, 1969). But the final language confers no such right: “The Congress recognizes that each person should enjoy a healthful environment and that each person has a responsibility to contribute to the preservation and enhancement of the environment.” NEPA § 101(c), 42 U.S.C. 4331(c) (2006).

person's interest in the environment.²⁰⁰ As Raz explains, this results from the nature of collective goods:

[T]he maintenance of a collective good affects the life and imposes constraints on the activities of the bulk of the population, in matters which deeply affect them. It is difficult to imagine a successful argument imposing a duty to provide a collective good on the ground that it will serve the interests of one individual.²⁰¹

This difficulty is not overcome by characterizing the individual interest as instrumental—that is, by invoking the way in which respecting the individual right serves the interests of many others. The public's interest in a healthy environment does not justify an individual right in the same way the public's interest in information justifies a journalist's right of access to governmental information. The provision of governmental information is more straightforward and less costly than the range of governmental and private activities necessary to ensure a healthy environment. And although many other individuals may share an interest in a healthy environment, they likely have a number of other interests, such as property interests, that compete with it in considering whether to impose an affirmative duty to maintain a healthy environment.²⁰² This does not mean that governments do not have duties based on citizens' interests in a healthy environment. What it means is that these duties are not grounded in a *right* to a healthy environment.²⁰³

Indeed, governmental duties to preserve the environment have been recognized in law, perhaps most notably in the various incarnations of the public trust doctrine, which generally holds that common natural resources, such as air and water, are held in trust by the government for the benefit of citizens.²⁰⁴ Although the doctrine has common law roots as applied to navigable waters, submerged lands, and shorelands,²⁰⁵ it has been applied by

200. If the right to a healthy environment is framed as a right to certain elements of the environment that support human health (e.g., a right to clean water or a right to clean air), it may have more force as an individual right. *See, e.g.*, PA. CONST. art. 1, § 27 (recognizing rights to "clean air" and "pure water"). This is so because it is grounded in an individual right to health (rather than a right to a healthy environment) and because respecting the interest of one person typically furthers the interests of all. A governmental duty to provide safe drinking water, for example, may be grounded in the individual right to clean water, which instrumentally serves the health interests of many others.

201. RAZ, *supra* note 31, at 203.

202. *See* Commonwealth v. Nat'l Gettysburg Tower, Inc., 311 A.2d 588 (Pa. 1973) (rejecting the argument that a constitutional environmental rights provision imposed a self-executing duty on the state to maintain natural resources in part because the provision did not specify how conflicts with property rights were to be resolved).

203. If we accept the interest theory of rights, not all duties are grounded in rights. *See* RAZ, *supra* note 31, at 202 (positing that government has a duty to at least try to provide a beautiful environment but it is not grounded in an individual right).

204. *See* JOSEPH L. SAX, DEFENDING THE ENVIRONMENT: A STRATEGY FOR CITIZEN ACTION 163–65 (1971); *see also* Joseph L. Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471 (1970).

205. *See* Sax, *The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention*, *supra* note 204; *see also* Nat'l Audubon Soc. v. Super. Ct. of Alpine Cnty., 658 P.2d 709 (Cal. 1983) (noting that according to the English common law concept of the public trust, a sovereign "owns all of

courts and scholars to defend a range of resources, including air, public lands, and wildlife.²⁰⁶ Today, variations of the doctrine appear in state constitutions²⁰⁷ and statutes,²⁰⁸ as well as state and federal case law.²⁰⁹ As a matter of trust law, the state's right as trustee to manage trust assets, natural resources, is qualified by its fiduciary duty to protect the assets and manage them according to the trust's purpose. As beneficiaries of the trust, state citizens may bring suit to enforce the terms of the trust and call for an accounting by the state. The terms of the public trust in natural resources include, at the very least, the preservation of the resources for the use and enjoyment of the public by preventing redistribution for private use²¹⁰ and by maintaining the value of those resources.²¹¹

In the context of the trust relationship, citizens therefore have a kind of legally recognized right to know. As beneficiaries of this trust, citizens have a *collective* right to demand that the state account for its management of the trust's assets. This is a collective right because, although it may not be justified by one person's interest in this information, it can be justified by the interests of all citizens in knowing how the state is managing their common trust assets. In other words, citizens have interests as members of a group (beneficiaries of a trust) in information (a public good), and they have a right to know—a right to demand an accounting—because it serves their interests as beneficiaries.²¹² The scope of an accounting in trust law is quite broad, including “all items of information in which the beneficiary has a legitimate concern.”²¹³ The duties grounded in this right would therefore include a state duty to report on the

its navigable waterways and the lands lying beneath them as trustee of a public trust for the benefit of the people” (quotations and citations omitted)).

206. See Robin Kundis Craig, *Adapting to Climate Change: The Potential Role of State Common-Law Public Trust Doctrines*, 34 VT. L. REV. 781 (2010); Charles F. Wilkinson, *The Public Trust Doctrine in Public Land Law*, 14 U.C. DAVIS L. REV. 269 (1980); see also Ctr. for Biological Diversity, Inc. v. FPL Group, Inc., 83 Cal. Rptr. 3d 588, 595–600 (Ct. App. 2008) (applying the public trust doctrine to wildlife).

207. See, e.g., PA. CONST. art 1, § 27 (“Pennsylvania’s public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.”).

208. See, e.g., The Michigan Environmental Protection Act, MICH. COMP. LAWS ANN. §§ 324.1701 (West 2012).

209. The seminal federal case is *Illinois Central Railroad Company v. Illinois*, 146 U.S. 387 (1892). For surveys of state public trust doctrines, see Robin Kundis Craig, *A Comparative Guide to the Western States’ Public Trust Doctrines: Public Values, Private Rights, and the Evolution Toward an Ecological Public Trust*, 37 ECOLOGY L.Q. 53 (2010); Robin Kundis Craig, *A Comparative Guide to the Eastern Public Trust Doctrines: Classification of States, Property Rights, and State Summaries*, 16 PENN. ST. ENVTL. L. REV. 1 (2007).

210. See SAX, DEFENDING THE ENVIRONMENT: A STRATEGY FOR CITIZEN ACTION, *supra* note 204, at 165.

211. See Mary Christina Wood, *Advancing the Sovereign Trust of Government to Safeguard the Environment for Present and Future Generations (Part II): Instilling a Fiduciary Obligation in Governance*, 39 ENVTL. L. 91, 94–98 (2009).

212. See RAZ, *supra* note 31, at 208.

213. See Wood, *supra* note 211, at 101–02 (quoting *Zuch v. Conn. Bank & Trust Co.*, 500 A.2d 565, 568 (Conn. App. Ct. 1985)).

health of all public resources, perhaps in the form of a “state of the environment report” similar to the EPA’s 2008 *Report on the Environment*.²¹⁴ The beneficiaries’ right to know would also include a duty to provide the information necessary to assess whether and how the state is carrying out its fiduciary obligations—for example, information about how natural resources are being managed, including the steps taken to prevent and mitigate harm.

III. RESOLVING CONFLICTS REGARDING THE ENVIRONMENTAL RIGHT TO KNOW

In addition to helping to define and clarify the various duties grounded in different manifestations of the environmental right to know, the evaluation of underlying interests facilitates the resolution of conflicts involving the right. Such conflicts are inevitable. Some obligations arising out of the environmental right to know will conflict with utilitarian considerations, such as market efficiency. Other obligations will conflict with duties grounded in other rights, such as duties arising from property, privacy, and speech rights. These conflicts seem to require that we rank some rights and some social policies ahead of others. Indeed, conflicts of this nature require difficult value judgments and often elude simple resolution.

The first step is to understand the nature of these conflicts and to acknowledge that difficult tradeoffs cannot be avoided.²¹⁵ Moreover, because rights generate multiple duties, conflicts actually involve specific duties, rather than the underlying rights.²¹⁶ The right to know may generate fairly simple duties, such as the duty to disclose governmental information upon request, as well as more onerous duties, such as the duty to test *all* commercial chemicals in order to produce information regarding their health effects. While the first duty may not conflict with a utilitarian interest in efficient allocation of its resources, the second clearly does. A tradeoff is required in the sense that the government may not be able to do all of what the duty requires.²¹⁷

Fortunately, the interest theory of rights leaves room to consider utilitarian arguments, such as the argument that a particular duty would prevent policies that further the happiness, or welfare, of the greatest number of people in society. Resolution of the conflict requires close consideration, or balancing, of all the underlying interests and their relative importance, along with consideration of the extent to which the conflicting duties further these

214. See EPA, REPORT ON THE ENVIRONMENT (2008), available at http://www.epa.gov/ncea/roe/roehd_chpt.htm; see also Wood, *supra* note 211, at 102 (“A natural asset accounting would use various indicia that point to the health of the asset: acres of forestland or wetland, species populations, pollution levels, and the like.”).

215. See JEREMY WALDRON, LIBERAL RIGHTS 209 (1993).

216. *Id.* at 206 (“When we say rights conflict, what we really mean is that the duties they imply are not compossible.”).

217. *Id.* at 211–12.

interests.²¹⁸ But although this means that rights do not always “trump” utilitarian considerations, they nevertheless denote the moral importance of particular interests.²¹⁹ Conversely, the tradeoffs inherent in a pure utilitarianism calculus do not recognize that some interests may be more important than others; an insignificant interest that furthers the happiness of the majority may be traded off against one of fundamental importance as long as few people are affected.²²⁰ For example, if it maximizes the majority’s wealth to subject a small number of workers to unsafe working conditions, the workers’ interests in health and safety will give way. Rights therefore step in as a way of expressing our dissatisfaction with resolving all conflicts in this way, as a way—for example—of acknowledging that interests in health and safety should enjoy priority over interests in maximizing wealth.

Of course, many conflicts do not involve utilitarian concerns, but are instead rights conflicts, that is, conflicts regarding multiple duties created by a single right or conflicts regarding duties created by two or more rights.²²¹ Consequently, we have to find a way to prioritize one right-based duty over another. We could resort to weighing the interests and considering how the respective duties advance those interests, but as Professor Jeremy Waldron has argued, sometimes the priority of one duty over another may be evident in the conception of the interest justifying a right.²²² We may find that “we express our sense of a particular priority in our conception of the interest itself.”²²³

An example will help illustrate this point. Waldron gives the example of one group of people who wish to make speeches calling for suppression of a different group of people, which gives rise to a concern that the first group’s speech will incite people to suppress the speech of the second group.²²⁴ We may first understand this as a conflict between the first group’s and the second group’s right to free speech. But if we conceptualize the underlying interest as “each person’s interest in participating on equal terms in a form of public life in which all may speak their minds,” we can resolve the apparent conflict.²²⁵ We may prohibit the first group’s speech because it is “incompatible with the very idea of the right they are asserting.”²²⁶ In this way, we can establish the priority of one rights claim over another by thinking about the underlying interest. In

218. *Id.* at 223–24 (“Many conflicts—whether between rights and utility or among rights themselves—are best handled in the sort of balancing way that the quantitative image of weight suggests: we establish the relative importance of the interests at stake, and the contribution each of the conflicting duties may make to the importance of the interest it protects, and we try to maximize our promotion of what we take to be important.”).

219. *Id.* at 211.

220. *Id.* at 210 (“The worry is that, in the utilitarian calculus, important individual interests may end up being traded off against considerations which are intrinsically less important and which have the weight that they do in the calculus because of the numbers involved.”).

221. *Id.* at 217.

222. *Id.* at 220.

223. *Id.* at 223.

224. *Id.* at 222.

225. *Id.* at 223.

226. *Id.*

doing so, we discover that the apparently competing moral considerations are *internally* related to each other.²²⁷

This section considers two conflicts involving the right to know; one conflict is frequently considered by courts and the other by agencies. The first conflict demonstrates how the priority of one rights claim over another can be resolved by analyzing the internal relation of competing claims to free speech and the right to know. The second conflict also draws on the internal relation of competing claims, but incorporates utilitarian interests as well to analyze the conflict between claims regarding the environmental right to know and the confidentiality of corporate trade secrets. Both conflicts demonstrate how an interest theory of rights can facilitate resolution of difficult legal and political questions.

A. *State Labeling Laws and the Environmental Right to Know*

Numerous labeling laws at the federal and state level potentially further the environmental right to know by prescribing or facilitating the dissemination of information about potential impacts to human health and the environment. One example at the state level is California's Proposition 65, which requires warnings regarding exposure to toxic substances. At the federal level, several statutes and regulations affect the dissemination of environmental information. For example, the Nutrition Labeling and Education Act imposes nutrition-labeling requirements on packaged foods,²²⁸ and the recently enacted Family Smoking Prevention and Tobacco Control Act requires new warnings on cigarette packages, including color graphics depicting negative impacts to human health.²²⁹ These laws require individuals and corporations to communicate information that, in all likelihood, they would prefer not to communicate. In other words, they *compel* speech. Does this mean they violate the speakers' right to free speech?

Courts holding that factual disclosure requirements of this sort do not violate the First Amendment frame the conflict as one between the right to free speech, which includes the right not to speak, and the government's interest either in preventing deceptive commercial speech²³⁰ or in protecting human

227. *Id.*

228. 21 U.S.C. § 343 (2006).

229. 15 U.S.C. § 1333 (2006). The tobacco warning requirements have been challenged on First Amendment grounds. *R.J. Reynolds Tobacco Co. v. FDA*, Nos. 11-5332, 12-5063, 2012 WL 3632003 (D.D.C. Aug. 24, 2012) (applying strict scrutiny to the Food and Drug Administration's new warnings rule and granting the tobacco companies' request for a preliminary injunction); *Commonwealth Brands, Inc. v. United States*, 678 F. Supp. 2d 512, 532 (W.D. Ky. 2010) (upholding the statute's warning requirements as narrowly tailored to advance the government's substantial interest in reducing tobacco use by minors).

230. *See, e.g., Milavetz, Gallop & Milavetz v. United States*, 130 S. Ct. 1324, 1341 (2010) (holding that disclosure requirements were reasonably related to governmental interest in preventing consumer deception); *Int'l Dairy Foods Ass'n v. Boggs*, 622 F.3d 628, 642 (6th Cir. 2010) (upholding disclosure requirements reasonably related to the state's interest in preventing consumer deception).

health and the environment.²³¹ To resolve the conflict, courts generally apply the less stringent test of *Zauderer v. Office of Disciplinary Counsel*²³² rather than the heightened scrutiny to which restrictions on commercial speech are typically subjected.²³³ As the Supreme Court explained in *Zauderer*, the commercial speaker's speech interest is "minimal" given that factual disclosure requirements resonate with the justification for protecting commercial speech: "Because the extension of First Amendment protection to commercial speech is justified principally by the value to consumers of the information such speech provides, [a commercial speaker's] constitutionally protected interest in not providing any particular factual information in his advertising is minimal."²³⁴ In other words, the conflict between disclosure and compelled speech can be resolved by considering the *internal* relation of the two claims: because the right to commercial speech is justified by consumers' *liberty* interest in information, the commercial speaker's refusal to disclose is incompatible with the interest justifying the very free speech right that the speaker is asserting.

Although the purpose of *Zauderer*'s disclosure requirements was the prevention of potential "consumer confusion or deception,"²³⁵ the underlying liberty interest in facilitating consumer choice may justify duties to disclose information for other purposes. As discussed above, the interest in individual liberty (roughly defined as enabling individuals to live out their own life plans) arguably justifies duties to provide a range of information that enables people to make choices consistent with their values and commitments. The federal appellate courts' extension of *Zauderer* beyond the context of potentially misleading speech to support more lenient review of disclosure requirements designed to promote individual health is therefore consistent with the interest justifying commercial speech rights.²³⁶ And liberty interests could arguably

231. See e.g., *N.Y. State Rest. Ass'n v. N.Y. City Bd. of Health*, 556 F.3d 114, 136 (2d Cir. 2009) (holding that municipal regulations requiring some restaurants to disclose calorie information were reasonably related to public health goal of reducing obesity); *Env'tl. Def. Ctr., Inc. v. United States*, 344 F.3d 832, 849–50 (9th Cir. 2003) (upholding federal regulations requiring municipal storm sewer systems to disseminate educational information about the environmental impacts of stormwater discharges); *Nat'l Elec. Mfrs. v. Sorrell*, 272 F.3d 104, 115–16 (2d Cir. 2001) (holding that mandatory labeling of some mercury-containing products was reasonably related to state interest in protecting human health and the environment).

232. *Zauderer v. Office of Disciplinary Counsel*, 471 U.S. 626 (1985).

233. See e.g., *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n*, 447 U.S. 557, 562–63 (1980). When warning labels require the dissemination of a message (e.g., a message about the health risks of a product or a subjective assessment of its content) courts have applied stricter levels of review. See, e.g., *Commonwealth Brands*, 678 F. Supp. 2d at 531–32 (applying *Central Hudson* test to tobacco warnings, such as "Cigarettes cause fatal lung disease"); *Entm't Software Ass'n v. Blagojevich*, 469 F.3d 641, 652 (7th Cir. 2006) (applying strict scrutiny to a "subjective and highly controversial message" that a video game is "sexually explicit").

234. *Zauderer*, 471 U.S. at 651.

235. *Id.*

236. See cases cited *supra* note 231. Although the Supreme Court recently applied the *Zauderer* standard to disclosure requirements in *Milavetz, Gallop & Milavetz, P.A. v. United States*, it did so in the context of potentially misleading commercial speech. 130 S. Ct. 1324 (2010). It is not clear that the Court would extend *Zauderer* beyond cases in which disclosure prevents consumers from being misled by *existing* commercial speech to cases in which disclosure compels the provision of information even

justify much more—for example, disclosure of a product’s carbon footprint or disclosure of genetically modified foods and ingredients. Because these requirements enable consumers concerned about climate change and biodiversity to make choices consistent with their values, the competing claim not to speak is incompatible with the liberty interest justifying the right to commercial speech.

A similar interest analysis illustrates why the Second Circuit’s resolution of a free speech challenge in *International Dairy Foods Ass’n v. Amestoy* is wrong.²³⁷ In that case, trade associations representing the dairy industry sought a preliminary injunction to prevent Vermont from enforcing a law that required the labeling of milk and milk products sold in Vermont that were made from milk from cows treated with rBST (recombinant Bovine Growth Hormone), a synthetic hormone that stimulates lactation and increases milk production.²³⁸ According to the district court, the state did not justify the law based on health concerns, but instead on “strong consumer interest and the public’s ‘right to know’ whether a particular dairy product contains milk produced by cows given rBST.”²³⁹ Based on state surveys, the court found that citizens of Vermont wished to avoid purchasing such products for four reasons:

- (1) They consider the use of a genetically-engineered hormone in the production unnatural; (2) they believe that use of the hormone will result in increased milk production and lower milk prices, thereby hurting small dairy farmers; (3) they believe that use of rBST is harmful to cows and potentially harmful to humans; and, (4) they feel that there is a lack of knowledge regarding the long-term effects of rBST.²⁴⁰

The district court concluded that the public’s right to know is a substantial state interest justifying the disclosure requirement.²⁴¹

But the Second Circuit, in a divided panel opinion, reversed the district court, characterizing the state interest as “consumer curiosity” and “mere consumer concern.”²⁴² As the dissent emphasized, the majority refused to consider the reasons consumers desired this information (in addition to failing to acknowledge the uncertainty in scientific opinion regarding health risks).²⁴³ Labels regarding rBST would enable consumers to make economic decisions

in the absence of potentially misleading speech. That said, given the liberty interests underlying the right to commercial speech, extension of *Zauderer*’s less stringent standard is arguably appropriate when disclosure requirements help consumers make informed economic choices consistent with their values and commitments.

237. *Int’l Dairy Foods Ass’n v. Amestoy*, 92 F.3d 67 (2d Cir. 1996).

238. *Id.* at 69–70.

239. *Int’l Dairy Foods Ass’n v. Amestoy*, 898 F. Supp. 246, 249 (D. Vt. 1995), *reversed by* 92 F.3d 67 (2d Cir. 1996).

240. *Id.* at 250.

241. *Id.* at 254.

242. *Amestoy*, 92 F.3d at 73 n.1.

243. *Id.* at 76–77 (Leval, J., dissenting); *see also* *Int’l Dairy Foods Ass’n v. Boggs*, 622 F.3d 628, 636–37 (6th Cir. 2010) (discussing scientific studies suggesting possible health risks from milk products from rBST-treated cows, as well as the inability of science to distinguish rBST from the naturally occurring hormone, BST).

consistent with a range of values and personal commitments, including commitments to environmentally sustainable agriculture, local and small business, animal welfare, and avoidance of uncertain health risks. In short, the liberty interest underlying the asserted right to know would be furthered by a duty to disclose.

The majority also mischaracterized the competing interest in not speaking as a “serious one” that implicated “core First Amendment values.”²⁴⁴ Although it may sometimes be true that compelled speech implicates core values, it is not axiomatic. It depends on the underlying interest. Supreme Court cases invalidating requirements that compel private speech are largely grounded in freedom of thought, rather than freedom of commercial speech.²⁴⁵ For example, in *West Virginia State Board of Education v. Barnette*, the Court struck down state requirements that students salute the flag and recite the pledge of allegiance.²⁴⁶ Noting that the salute and pledge “require[] affirmation of a belief and an attitude of mind,” Justice Jackson emphasized the importance of free thought to social goods, such as “intellectual individualism,” and concluded that state censorship or compulsion of *opinion* threatened these interests.²⁴⁷

The majority opinion in *Barnette* echoes Mill’s justification of free speech rights, grounded in free thought and the intellectual advancement of society. Freedom of thought is obviously not the competing claim in *Amestoy*, a case involving a *factual* disclosure requirement relevant to a commercial transaction—information that does not compel the speakers to support a message or idea with which they disagree. But even if the plaintiffs had characterized their claim in this way, the conflict with the right to know can easily be resolved by looking at the conception of the interest underlying the asserted right. Disclosure of factual information by a commercial speaker does not undermine the speaker’s intellectual freedom or prevent intellectual

244. *Amestoy*, 92 F.3d at 71–72.

245. See, e.g., *McIntyre v. Ohio Elections Comm’n*, 514 U.S. 334, 355 (1995) (invalidating state law that prohibited circulation of anonymous political leaflets and noting that compelling disclosure of the author’s identity “is particularly intrusive [because] it reveals unmistakably the content of her thoughts on a controversial issue”); *Wooley v. Maynard*, 430 U.S. 705, 714 (1977) (“[T]he right of freedom of thought protected by the First Amendment against state action includes both the right to speak freely and the right to refrain from speaking at all. A system which secures the right to proselytize religious, political, and ideological causes must also guarantee the concomitant right to decline to foster such concepts. The right to speak and the right to refrain from speaking are complementary components of the broader concept of “individual freedom of mind.” (citations omitted)); *W. Va. State Bd. of Educ. v. Barnette*, 319 U.S. 624, 634 (1943) (“To sustain the compulsory flag salute we are required to say that a Bill of Rights which guards the individual’s right to speak his own mind, left it open to public authorities to compel him to utter what is not in his mind.”).

246. *Barnette*, 319 U.S. at 642.

247. *Id.* at 633, 641; see also *id.* at 642 (“We think the action of the local authorities in compelling the flag salute and pledge . . . invades the sphere of intellect and spirit which it is the purpose of the First Amendment to our Constitution to reserve from all official control.”).

progress. Freedom of commercial speech rests on an entirely different interest: the liberty interest of individual consumers.²⁴⁸

B. *Trade Secrets and the Environmental Right to Know*

Evaluation of underlying interests can contribute to the resolution of difficult questions created by yet another conflict involving the environmental right to know. A number of statutory regimes regulating human health and the environment allow individuals submitting information to the government to claim that the information is confidential business information and therefore subject to limited disclosure. In some cases, this keeps the government from publicly disclosing basic information regarding commercial chemicals, such as a chemical's identity. Even right-to-know laws designed to increase public disclosure and transparency in government, such as FOIA and EPCRA, contain provisions allowing agencies to deny information requests that contain trade secrets or other confidential business information. Not surprisingly, environmental activists and scholars have expressed concern that these provisions keep important health and safety information from the public.²⁴⁹

Although a full treatment of the complex legal and theoretical issues created by trade secret claims requires far more space than this Article allows, the following analysis of the conflict between trade secrets and the public's right to environmental information highlights some of the interests furthered by trade secret protection. As in the case of compelled commercial speech, we can further our resolution of the conflict by scrutinizing the internal relation of the competing claims, particularly when the interest in nondisclosure of trade secrets is characterized as a duty grounded in an individual property right. Other interests require a more open-ended balancing approach that considers the extent to which important interests are furthered by disclosure and nondisclosure. After a brief discussion of the definition of a trade secret, I consider the interests furthered by trade secret protection and the implications of these interests when confronted with competing claims involving the environmental right to know.

1. *Legal Definitions of Trade Secrets*

Trade secrets are generally defined by state law to include commercial ("trade") information that a business seeks to keep "secret," or confidential, in

248. For similar reasons, so-called "food libel" statutes are contrary to First Amendment values. Under these state laws, speakers who criticize agricultural products may be sued for unjustifiably disparaging such products. See David J. Bederman et al., *Of Banana Bills and Veggie Hate Crimes: The Constitutionality of Agricultural Disparagement Statutes*, 34 HARV. J. LEGIS. 135 (1997) (arguing that these laws are unconstitutional). The threat of suit chills speech on issues of considerable public concern and prevents the dissemination of information that promotes liberty of choice.

249. See, e.g., RENA STEINZOR & MATTHEW SHUDTZ, *SEQUESTERED SCIENCE: SECRETS THREATENING PUBLIC HEALTH* (2007), available at http://www.progressivereform.org/articles/Secrecy_703.pdf.

the sense of keeping it out of the hands of its competitors. The Uniform Trade Secrets Act, which is the law in the majority of jurisdictions,²⁵⁰ defines a trade secret as follows:

“Trade secret” means information, including a formula, pattern, compilation, program, device, method, technique, or process, that: (i) derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use, and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.²⁵¹

Federal agencies generally limit public disclosure on the basis not only of “trade secrets,” but also of “confidential business information.” But definitions of confidential business information are quite similar to state law definitions of trade secrets. The EPA, for example, will treat information confidentially if: (1) the business has asserted a confidentiality claim; (2) the business has shown that it has “taken reasonable measures to protect” the information and will continue to do so; (3) the information is not “reasonably obtainable without the business’s consent” by nongovernmental persons using “legitimate means” (e.g., reverse engineering); (4) no statute requires disclosure; and (5) the “business has satisfactorily shown that disclosure of the information is likely to cause substantial harm to the business’s competitive position.”²⁵² The only notable difference between the EPA’s definition and the Uniform Act’s definition is that the former requires *substantial* economic harm. Because these definitions so closely track each other, I use the phrases “trade secrets” and “confidential business information” interchangeably.

Implicit in these definitions is the idea that trade secrets merit legal protection because they have economic value to their holders as long as they do not fall into the hands of competitors. Because trade secrets consist of information that furthers a business’s competitive advantage, the business clearly loses something when its competitors acquire the information. For this reason, trade secrets can look like property and their loss can look like an invasion of a property right.

Not surprisingly then, courts have generally treated trade secrets as property;²⁵³ however, the academic commentary is skeptical.²⁵⁴ Unlike

250. See Edward H. Pappas & Daniel D. Quick, *Trade Secrets: Protection and Remedies*, in CORPORATE PRACTICE SERIES PORTFOLIOS: INTELLECTUAL PROPERTY § I.B.2 (2012).

251. UNIFORM TRADE SECRETS ACT §1(4) (1985).

252. 40 C.F.R. § 2.208 (2010).

253. See *Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1002–03 (1984) (treating some data submitted by Monsanto under the Federal Insecticide, Fungicide, and Rodenticide Act as property subject to a takings challenge); see also *Carpenter v. United States*, 484 U.S. 19, 26 (1987) (citing *Ruckelshaus* for the somewhat broader proposition that “confidential business information has long been recognized as property”); see also MELVIN F. JAGER, *TRADE SECRETS LAW* § 4:3 (2011) (discussing cases recognizing trade secrets as property).

tangible or real property, a trade secret is not “a rivalrous private good that can be commodified to the exclusion of most others.”²⁵⁵ Information, including trade secrets, is a public good; once disclosed, information is available to everyone, and one person’s “consumption” of the information will not increase the cost to others. Trade secrets cannot therefore draw on the traditional interest underlying property rights—that is, the interest in preventing the overuse of resources resulting in a “tragedy of the commons.”²⁵⁶ Moreover, holders of trade secrets also do not have legal rights to exclude others, as is the case with property generally.²⁵⁷ For example, a competitor is free to discover the content of a trade secret in the chemical composition of a product through reverse engineering or other independent means.

But trade secrets do resemble “property” in one important sense. The disclosure of information regarding production processes and formulas deprives a commercial entity of the value of the processes and formulas derived from human labor. The Lockean concept of labor as the basis for the right to property is deeply rooted in American tradition. Indeed, in recognizing the property interest in trade secrets, the Supreme Court cited both William Blackstone’s *Commentaries* and John Locke’s *Second Treatise of Government* for the proposition that “property” extends beyond land and tangible goods and includes the intangible products of “labour and invention.”²⁵⁸ In this sense, property literally “embodies” the idea of self-ownership and a right to bodily autonomy grounded in individual liberty; the argument is that if I own myself, I own the physical and mental consequences of my body’s labor.

2. *A Right to Protect Trade Secrets?*

This concept of property is not without its problems, but assuming we follow the courts in embracing it, what duties would a right to property, which furthers this concept, justify? Locke’s concept of the right to property is grounded in liberty interests in protecting the fruits of one’s labor.²⁵⁹ Labor, rather than raw material, infuses a thing with value; to illustrate this, he notes that various commodities are worth far more than the raw natural resources used to make them—for example, bread is worth more than the acorns used to make it—and concludes that this value is “wholly owing to labour and

254. See Mary L. Lyndon, *Secrecy and Access in an Innovation Intensive Economy: Reordering Information Privileges in Environmental, Health, and Safety Law*, 78 U. COLO. L. REV. 465, 497 (2007) (“Most of the scholarship agrees that property is not the appropriate model for trade secrecy.”).

255. Jacqueline Lipton, *Information Property: Rights and Responsibilities*, 56 FLA. L. REV. 135, 148 (2004).

256. *Id.*

257. See Wendy J. Gordon, *A Property Right in Self-Expression: Equality and Individualism in the Natural Law of Intellectual Property*, 102 YALE L.J. 1533, 1552 (1993). Common law causes of action do give trade secret holders a limited right to exclude others by providing remedies (e.g., injunction) for the misappropriation of a trade secret.

258. *Ruckelshaus*, 467 U.S. at 1003.

259. LOCKE, *supra* note 74, § 27. In some sections of the *Second Treatise*, Locke includes liberty in the concept of property. See, e.g., *id.* §§ 87, 123.

industry.”²⁶⁰ He acknowledges, however, that the right is not absolute: the duty of others not to interfere with the fruits of one’s labor is qualified by the well-known proviso that “enough, and as good [be] left in common for others.”²⁶¹ In picking apples from a tree, for example, a person gains a right to those apples by mixing her labor with them, but only to the extent that she leaves everyone else with “enough and as good.”²⁶²

Locke was concerned with how individuals acquire property rights in natural resources, such as land, common to all. But scholars and (implicitly) courts have extended his concept of property and the proviso to intangible property,²⁶³ and the implications are important. First, as noted above, some business information involves processes, formulas, methods, and other practices that are created by labor. To the extent that business information involves these processes, it would appear that the interest in protecting the creations of human labor justifies a governmental duty not to disclose this information.

But what about the proviso? At first blush, we might be tempted to conclude that it does not apply. For example, not disclosing the composition of a chemical mixture used in the process of extracting natural gas does not prevent others from using common resources and information to arrive at the same mixture. But the common may be threatened in a different way.²⁶⁴ Unless there is no risk that the injection of the mixture into the ground will endanger human health or the environment, the nondisclosure of this information may threaten common resources (e.g., by potentially contaminating drinking water). The public therefore needs this information to ensure that the government is meeting its obligation to maintain the quality of a common resource.²⁶⁵ Given scientific uncertainty, lack of governmental resources, and the self-interest of industry, the common may not be protected without public disclosure of this information. Once again, the conflict—here between the right to know and a right to property—is amenable to resolution in some cases by looking at the conception of the underlying interest. In some cases, a right to property may not exist because the underlying interest in benefiting from one’s labor depends on leaving “enough and as good” in the common for everyone else.

260. *Id.* § 42.

261. *Id.* § 27.

262. *Id.* §§ 27–28.

263. *See, e.g.,* Gordon, *supra* note 257; Justin Hughes, *The Philosophy of Intellectual Property*, 77 GEO. L.J. 287, 296–329 (1988).

264. *See* Gordon, *supra* note 257, at 1567 (“That an intellectual product is new, would not have otherwise existed, and may initially bring benefit to the public, does not guarantee that later exclusions from it will be harmless.”).

265. *See* David S. Levine, *Secrecy and Accountability: Trade Secrets in Our Public Infrastructure*, 59 FLA. L. REV. 135 (2007) (arguing that when businesses provide public infrastructure, the public’s interest in governmental transparency and accountability should trump trade secrecy).

3. *Utilitarian Interests Underlying Trade Secrets*

In addition to a putative property right, the claim for trade secret protection also invokes utilitarian interests. First, if the government were to routinely disclose information that gives businesses a competitive advantage, businesses would lack an incentive to innovate and society would lose the benefit of new processes, products, and technologies. For example, businesses would not invent and use new technologies—perhaps even greener technologies—because they would lose their economic value once disclosed to competitors. Second, if the government were to disclose information claimed as confidential, it would deter the submission of the voluntary information and data upon which agencies rely. Again, the argument is that society loses because businesses will withhold the information society needs to protect the environment and human health. As I explain, both arguments may in some cases be true.²⁶⁶

By conferring on a trade-secret holder the legal right to restrict others from (wrongfully) acquiring valuable information, society grants the holder the prospect of “*supra*competitive profits” from the protected information.²⁶⁷ In this way, trade secret protection can operate much like other intellectual property rights in patents and copyright: by rewarding investment in new discoveries, these rights encourage innovation and invention.²⁶⁸ Moreover, trade secret protection can encourage innovation in nonpatentable subject matter, such as information about the processes and methods that a business has tested and determined do not work—“so-called ‘negative know-how.’”²⁶⁹ And trade secret protection avoids the application process, long delays, and considerable costs associated with patent protection.²⁷⁰ In short, it is often the best—and sometimes only—avenue available to a business wishing to protect valuable information from competitors.

Even so, some might object to the idea that trade secrets truly benefit the public. Unlike patents and copyrights, trade secrets keep information from the public, preventing others from benefitting from the information and improving upon it. But though it seems counterintuitive, trade secrets may in some situations *promote* disclosure. As Professor Mark Lemley has argued, “a world without trade secret protection is likely to have more, not less, secrecy.”²⁷¹ Without trade secret protection, businesses may invest considerably more in protecting certain inventions.²⁷² This may be particularly true in the chemical

266. See Mark A. Lemley, *The Surprising Virtues of Treating Trade Secrets as IP Rights*, 61 STAN. L. REV. 311 (2008) (arguing that trade secret law encourages invention *and* wider disclosure of information for inventions that are not inherently self-disclosing).

267. *Id.* at 330.

268. *Id.* at 329. (“In this way, patents and copyrights avoid the risk of underinvestment inherent with public goods, which are more costly to invent than to imitate once invented.”).

269. *Id.* at 331.

270. *Id.*

271. *Id.* at 336.

272. *Id.* at 334.

industry when processes and formulas are not easy to discern just by studying the product they help produce.²⁷³ For example, if a competitor flies over a chemical plant to discover valuable information about processes, trade secret law steps in to provide protection.²⁷⁴ Without it, the chemical plant might invest in costly measures to shield its processes from aerial view.²⁷⁵ It would also be less likely to enter into contracts with third parties and more likely to restrict hiring practices in order to prevent the loss of valuable information.²⁷⁶ In addition to being inefficient, the plant's investment in secrecy would arguably reduce the disclosure of information to new employees and others who may improve upon these secret processes.²⁷⁷

Most important, in the environmental context, the chemical plant seeking to protect a secret process is likely to avoid giving the government information about this process in the absence of some kind of trade secret protection. At the very least, the plant would likely choose not to disclose information voluntarily. The incentive to disclose information voluntarily is critical; the EPA gathers a substantial amount of information regarding the practices, processes, and materials employed by regulated entities by requesting that they submit information voluntarily. And even when the agency requires information disclosure (e.g., as a condition of a license or permit), businesses may be tempted to provide inaccurate or false information in the absence of trade secret protection.

4. *Deciding When Disclosure is Appropriate*

Even if we reject the thesis that a right to property grounds a duty to protect trade secrets, social interests in encouraging innovation and disclosure for regulatory purposes may justify trade secret protection as a general matter. The more difficult problem is determining when that protection should give way to the right to know. First, public disclosure of a chemical process or formula, for example, must further at least one or more interests justifying the right to know: scientific knowledge, self-expression, liberty of choice, self-government, human health, or a healthy environment. Similarly, to justify nondisclosure, trade secret protection must advance underlying interests in encouraging innovation and disclosure to the government. Once the competing interests are identified, they must be weighed. To justify public disclosure, the interests advanced by disclosure must outweigh the interests advanced by trade secret protection. The result of this balancing will not be the same for every

273. *Id.* at 339. If an invention is obvious on the face of the product, patent protection is a better option. *Id.* at 338–39.

274. *Id.* at 334 (discussing *E.I. du Pont de Nemours & Co. v. Christopher*, 431 F.2d 1012 (5th Cir. 1970)).

275. *Id.*

276. *Id.* at 334–35.

277. *Id.* at 335.

conflict between the right to know and trade secret protection because the relevance and strength of the competing interests will vary with context.

To see how this works, consider the information collected from the chemical industry under the TSCA. Under the act and its regulations, the EPA requires industry to submit data regarding the chemicals manufactured, processed, and distributed in the United States. This body of information includes the TSCA Inventory, a list of the non-confidential identities of over 83,000 chemical substances.²⁷⁸ It also includes the health and safety studies on chemical substances or mixtures that are conducted by or otherwise known to chemical manufacturers, processors, and distributors.²⁷⁹ And pursuant to the Inventory Update Reporting Rule,²⁸⁰ manufacturers and processors of chemical substances that meet specified thresholds must report manufacturing data, such as chemical identity and production volume, and exposure-related data regarding processing and use, such as the number of workers exposed to the chemical and commercial and consumer product categories that describe the products in which the chemical is used.²⁸¹

Some of this information falls within the EPA's definition of confidential business information, and companies routinely make such claims to prevent the agency from disclosing valuable information that they are required to report. The TSCA, however, recognizes specific limitations to such claims. For chemical substances or mixtures already in commerce or subject to TSCA testing or notification requirements, companies may not claim that health and safety data are confidential.²⁸² The required disclosure of health and safety data does not, however, include data that reveal the processes used in manufacturing or processing, or that reveal the portions of chemical substances in a chemical mixture.²⁸³ Under TSCA regulations, a company may also assert a

278. Toxic Substances Control Act (TSCA) § 8(b), 15 U.S.C. § 2607(b) (2006). In March 2010, the EPA made the inventory available for free at <http://explore.data.gov/Geography-and-Environment/TSCA-Inventory/pkhi-wvjh>. See *Increasing Access to Information*, EPA, <http://www.epa.gov/opptintr/existingchemicals/pubs/transparency.html> (last visited Oct. 15, 2012).

279. TSCA §§ 8(d)-(e). Using the relatively new Chemical Data Access Tool, available at http://java.epa.gov/oppt_chemical_search/, the public can search for information collected under these provisions, as well as information collected under Sections 4 and 5 of TSCA (the EPA's testing authority and premanufacturing notification requirements) and the EPA's HPV challenge.

280. The Inventory Update Reporting Rule was recently renamed and revised by the Chemical Data Reporting Rule. TSCA § 8(a); see also TSCA Inventory Update Reporting Modifications; Chemical Data Reporting, 76 Fed. Reg. 50,816 (Aug. 16, 2011) (to be codified at 40 C.F.R. pts. 704, 710, 711) [hereinafter Chemical Data Reporting Rule].

281. Chemical Data Reporting Rule, 76 Fed. Reg. at 50,816-18 (summarizing the reporting requirements under the old Inventory Update Reporting rule and the new Chemical Data Reporting Rule).

282. TSCA § 14(b)(1); see also 40 C.F.R. § 2.306(g) (2010) (stating that "health and safety data are not eligible for confidential treatment" under the TSCA). In addition, the TSCA requires that the EPA disclose confidential information for certain purposes (e.g., in connection with official duties and upon request from Congress), TSCA §§ 14(a), (e), and when "necessary to protect health or the environment against an unreasonable risk of injury to health or the environment," § 14(a)(3), a standard that is difficult to satisfy.

283. TSCA § 14(b)(1).

confidentiality claim for the identity of a chemical substance subject to the TSCA Inventory, although the company must answer specific questions regarding secrecy and the value of the information.²⁸⁴

The general balance that emerges from the TSCA and the EPA's regulations is one that protects trade secrets unless doing so would keep health and safety data from the public.²⁸⁵ But does this balance actually further health and safety interests? As discussed above, the public disclosure of technical studies may do little to further individual health interests.²⁸⁶ Most people will not be able to understand these studies without the help of experts. In addition, the most useful data on the end use of chemical substances may be and often is claimed as confidential. Disclosure also does not appear to advance interests in personal liberty or a healthy environment. Without knowing basic information about how exposure may occur, individuals cannot further personal liberty interests by choosing to avoid uncertain or unknown health risks. Nor can they advance collective interests in a healthy environment by evaluating potential environmental impacts.

Furthermore, as proponents of reform have argued, the health and safety data collected under the TSCA are terribly inadequate.²⁸⁷ When industry submits insufficient data on human and environmental risks, the EPA has to meet certain statutory requirements, often within a short period of time, in order to require further testing or justify regulation of the substance.²⁸⁸ By shifting the burden to government, the statute ensures not only less regulation of chemical substances, but also less information about these substances. Health, liberty, and environmental interests arguably justify imposing more demanding duties on industry and government to fund tests on chemical substances and

284. 40 C.F.R. § 710.38(c) (2010).

285. For purposes of discussion, I assume that information protected as confidential is in fact legally entitled to that protection because it falls within the EPA's regulatory definition of confidential business information. As a practical matter, this is not always true; in the past, companies have routinely made such claims without substantiating them. See Richard Denison, *Ten Essential Elements in TSCA Reform*, 39 ENVTL. L. REP. 10,020, 10,027 (2009). The EPA has recently taken steps to reduce false and unsubstantiated claims, including new requirements for upfront substantiation in the Chemical Data Reporting Rule. Chemical Data Reporting Rule, 76 Fed. Reg. 50,816. Also, in June 2011, based on a newly issued guidance, the agency released the previously confidential identities of more than 150 chemicals contained in 104 health and safety studies. See *Increasing Transparency in TSCA*, EPA, <http://www.epa.gov/opptintr/existingchemicals/pubs/transparency.html> (last visited Oct. 15, 2012); Claims of Confidentiality of Certain Chemical Identities Submitted under Section 8(e) of the Toxic Substances Control Act, 75 Fed. Reg. 3462 (Jan. 21, 2010).

286. Disclosure is especially ineffective when the studies are made available, but the chemical identities remain confidential, which is sometimes the case. See Denison, *supra* note 285, at 10,027.

287. See, e.g., Environmental Defense Action Fund, *Flaws of the Toxic Substances Control Act*, <http://notaguineapig.org/fixing-the-law/toxic-substances-control-act/> (last visited Oct. 15, 2012).

288. Before a new chemical substance or, in some cases, a new use of a substance enters the market, the manufacturer or processor must notify the EPA and submit health and safety data. TSCA § 5(b). But if the submitted data are insufficient to determine health and environmental effects, the EPA may take action (e.g., require testing or limit or prohibit distribution) only if it determines that the substance may present an unreasonable risk of health or environmental injury or that the substance will be released into the environment in large quantities or may result in substantial human exposure. TSCA §§ 4(a), 5(e).

disclose exposure-related data. And if better information were available, the right to know would ground a duty to disclose when public disclosure furthers these underlying interests. But given the state of information today, public disclosure only marginally (if at all) advances interests in human health, personal liberty, and environmental protection.

Conversely, the interest in advancing scientific knowledge may justify disclosure not only of health and safety data, but also of confidential data. But a duty of full disclosure is difficult to justify given the competing interests underlying trade secret claims and the likelihood that more limited disclosure would accomplish the same or similar ends. Scientific research regarding environmental risks relies heavily on governmental funding and support.²⁸⁹ The interest in advancing scientific knowledge of environmental and health risks therefore justifies more limited disclosure, such as the disclosure to governmental contractors currently permitted by the TSCA.²⁹⁰

The strongest argument for public disclosure in some cases is that it furthers the public's interest in self-government—the interest in knowing whether and how the government is regulating chemical substances. When a chemical substance or mixture becomes a matter of public concern, disclosure of information facilitates scrutiny by the media and environmental groups, which in turn enables members of the public to form informed opinions about how the government is regulating certain activities and to participate in the decision making process. Of course, in these situations, the balance the TSCA strikes is not defensible. Information regarding a substance's process, use, and identity is critical, as is information regarding the composition of a chemical mixture.

For example, in recent years, public concern regarding bisphenol A (BPA) has grown.²⁹¹ Because animal studies indicate that BPA may be a reproductive and developmental toxin, concern has focused in particular on the possibility of children's exposure through such things as baby bottles, teething toys, and food packaging.²⁹² Some of its uses, such as those related to food packaging, fall under the Food and Drug Administration's jurisdiction, but the vast majority of BPA, which is a high-production-volume chemical, is subject to regulation by the EPA under the TSCA.²⁹³ A search of the publicly available 2006 inventory-

289. In fact, the current regulatory regime may actually discourage industry from testing and researching the environmental effects of chemical substances. See Wendy Wagner, *Using Competition-Based Regulation to Bridge the Toxics Data Gap*, 83 IND. L.J. 629, 637 (2008) ("Since tested chemicals are not distinguished from untested chemicals [by the regulatory regime] but are more costly to produce, they are more likely to be less competitive" in a market that cannot validate the tested chemicals' superiority.).

290. TSCA § 14(a)(2).

291. See, e.g., ENVTL. WORKING GROUP, BISPENOL A: TOXIC PLASTICS CHEMICAL IN CANNED FOOD (Mar. 2007), available at <http://www.ewg.org/reports/bisphenola>.

292. EPA, BISPENOL A ACTION PLAN 4 (2010), available at http://www.epa.gov/opptint/existingchemicals/pubs/actionplans/bpa_action_plan.pdf.

293. *Id.* at 3 ("Based on the nature of uses within product areas, EPA judges that the majority (possibly 85 percent to 90 percent) of BPA manufactured and used in the United States may fall within

update-reporting data for BPA reveals aggregated national use and process data, but some of it is designated as confidential business information.²⁹⁴ Because the public is concerned about how the government is limiting exposure to BPA, this type of information—which includes data regarding concentrations in consumer products—is essential to public opinion and democratic participation.

Another recent example of public concern regarding chemical regulation is the concern regarding the health and environmental effects of hydraulic fracturing, a method of extracting natural gas. During the process, a mixture of water, sand, and chemicals (including benzene and formaldehyde) is injected into the well at high pressures to break up rock formations in order to release natural gas. In addition to fears that this process results in groundwater contamination thereby contaminating wells and drinking water, there are fears of surface-water pollution resulting from wastewater disposal and well blowouts, as well as concerns about air pollution.²⁹⁵ At the direction of Congress in 2010, the EPA began taking steps toward an eventual study of the fracturing process's effects on groundwater and drinking water.²⁹⁶ To further this study, the EPA requested that nine leading fracturing service providers voluntarily disclose to the agency the identities and concentrations of the chemical substances present in the fracturing fluid.²⁹⁷ The nine companies were permitted to claim some or all of this information as confidential.²⁹⁸ But like the BPA example, scrutiny of the government's regulatory activities requires this very information.²⁹⁹

Given that public disclosure furthers the right to know grounded in self-government, the next question is whether the interests underlying trade secret

TSCA jurisdiction . . ."). Last year, the EPA issued an Advanced Notice of Proposed Rulemaking to request comment on requiring testing to help assess BPA's environmental (but not human health) effects. Testing of Bisphenol A, 76 Fed. Reg. 44,535, 44,535–36 (July 26, 2011).

294. *Inventory Update Reporting (IUR), Non-Confidential 2006 IUR Company/Chemical Records*, EPA, <http://cfpub.epa.gov/iursearch/index.cfm> (last visited on Oct. 15, 2012).

295. See Editorial, *The Debate on Fracturing*, N.Y. TIMES, Aug. 20, 2011, at S10, available at http://www.nytimes.com/2011/08/21/opinion/sunday/the-debate-on-fracturing.html?_r=1&scp=1&sq=hydraulic%20fracturing&st=cse (summarizing concerns of a federal report by a panel of energy experts); Mike Soraghan, *Pa. Well Blowout Tests Natural Gas Industry Voluntary Fracking Disclosure*, N.Y. TIMES (May 4, 2011), <http://www.nytimes.com/gwire/2011/05/04/04greenwire-pa-well-blowout-tests-natural-gas-industry-on-36297.html> (discussing concerns arising from well blowout).

296. See EPA, PLAN TO STUDY THE POTENTIAL IMPACTS OF HYDRAULIC FRACTURING ON DRINKING WATER RESOURCES (2011), available at http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/upload/hf_study_plan_110211_final_508.pdf.

297. Letter from Lisa P. Jackson, Adm'r of EPA, to Nine Companies (Sept. 9, 2010), available at <http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/upload/HFvoluntaryinformationrequest.pdf>.

298. *Id.* at 5–6.

299. As a result of public pressure and industry's desire to avoid federal regulation, some oil and gas companies have begun disclosing the chemical composition of fracturing fluids for specific wells. This information is made available to the public at <http://fracfocus.org/hydraulic-fracturing-process>. In addition, states, such as Wyoming, Texas, and Arkansas, have passed mandatory disclosure laws. See Kate Galbraith, *Seeking Disclosure on Fracking*, N.Y. TIMES, May 30, 2012, http://www.nytimes.com/2012/05/31/business/energy-environment/seeking-disclosure-on-fracking.html?_r=0.

protection tip the balance. The most general interest furthered by trade secret protection is the utilitarian interest in encouraging innovation, which ultimately benefits society. But when the public has expressed serious concern regarding the benefits of innovation, this interest no longer justifies nondisclosure. Similarly, the interest in promoting disclosure to the government assumes that the government will act in society's best interests, but when the public is concerned about whether the government is fulfilling its obligations, this interest cannot compete with the interest in self-government furthered by public disclosure.

Consequently, in cases of public concern, the balance tips in favor of disclosure. When necessary, laws should explicitly recognize this. For example, the disclosure provision of the TSCA³⁰⁰ should explicitly permit disclosure of information gathered under the statute when the EPA determines it is the subject of public concern. Regulations should then further define what qualifies as a subject of public concern and allow citizens to petition for disclosure on this basis. Disclosure is not justified in the absence of at least some public interest because it is less likely to result in the kind of scrutiny that furthers informed public opinion and participation, thereby advancing society's interest in self-government.³⁰¹

CONCLUSION

This Article's inquiry into the nature of the environmental right to know illustrates both the explanatory and the normative power of an interest analysis of rights claims. Identifying the interests underlying right-to-know claims facilitates an evaluation of the arguments in support of duties to disclose and disseminate information about the environment. An interest analysis clarifies and refines these arguments by exposing their strengths and weaknesses. For example, although the right to environmental information may first appear to advance interests in human health and the environment, an examination of how current information disclosure furthers these interests reveals serious limitations. In order for disclosure to have significant impacts on human health

300. TSCA § 14, 15 U.S.C. § 2613 (2006).

301. Moreover, as a practical matter, without a clear legal definition, the EPA's decision to disclose would be vulnerable to court challenges on the basis that public disclosure constitutes an unconstitutional taking of property. *See Ruckelshaus v. Monsanto Co.*, 467 U.S. 986, 1006–07 (1984) (holding that EPA's public disclosure of information collected under the Federal Insecticide, Fungicide, and Rodenticide Act was not an unconstitutional taking because the statute gave Monsanto notice of the possibility of disclosure, precluding the argument that disclosure was contrary to reasonable investment-backed expectations); *see also Mobay Chem. Corp. v. Gorsuch*, 682 F.2d 419, 422–23 (3d Cir. 1977) (stating that a company does not have a property interest beyond that provided by federal law in material given to an agency as a precondition of selling a product in interstate commerce). Without a clear standard, disclosure decisions would also be vulnerable to challenge as arbitrary and capricious. Although trade secret status under FOIA does not preclude agency disclosure (i.e., nondisclosure is not mandatory), an agency's decision to disclose may still be challenged under Chapter 7 of the Administrative Procedure Act (APA). *See APA* § 10, 5 U.S.C. §§ 701–06 (2006); *see also* 40 C.F.R. § 2.205(f)(2) (2010).

and environmental protection, more information must be generated, collected, and translated into plain language accessible to most people. And even then, scientific uncertainty and other obstacles make risk communication an imperfect strategy in promoting human and environmental health.

But other interests that have long supported claims regarding a general right to know in First Amendment law—interests in intellectual progress, personal liberty, and democratic self-government—may provide a stronger foundation for the environmental right to know in particular contexts. As the discussion of the conflicts involving labeling and trade secret protection demonstrates, in some situations, the right to environmental information does indeed further important interests in individual liberty and democratic participation. By analyzing the interests underlying competing claims, we can answer many of the legal and political questions at the center of these and other conflicts involving the right to know.