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Genetic Engineering and the Concept of the Natural

The food industry in its advertising conspicuously appeals to the image of nature and insists that all its products are natural. This has made it difficult for the industry to embrace, as it wishes, the efficiencies of genetic engineering.

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Junk Science and Environmental Policy: Obscuring Public Debate with Misleading Discourse

Although the term "junk science" has become a fixture in the popular media, content analysis of news stories for a five-year period reveals almost no evidence of substantive or procedural inadequacies in the science used to support environmental or public health policies. Instead, the charge of "junk science" is meaningful primarily from a political or ideological perspective, and plays a strategic role in contrarian, anti-regulatory discourse.

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Globalization and Its Discontents

Globalization, the effective erasure of national boundaries for economic purposes, risks standards-lowering competition, an increased tolerance of mergers and monopoly power, intense national specialization, and excessive monopolization of knowledge. The better alternative to globalization is internationalization, which advocates that the basic unit of community and policy remain the nation.

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Genetic Engineering and the Concept of the Natural

Mark Sagoff

Why do many consumers view genetically engineered foods with suspicion? I want to suggest that it is largely because the food industry has taught them to do so. Consumers learn from advertisements and labels that the foods they buy are all natural—even more natural than a baby's smile. "The emphasis in recent years," *Food Processing* magazine concludes, "has been on natural or nature-identical ingredients." According to *Food Product Design*, "the desire for an all natural label extends even to pet food."

The food industry, I shall argue, wishes to embrace the efficiencies offered by advances in genetic engineering. This technology, both in name and in concept, however, belies the image of nature or of the natural to which the food industry constantly and conspicuously appeals. It should be no surprise that consumers who believe genetically modified foods are not "natural" should for that reason regard them as risky or as undesirable. If they knew how much technology contributes to other foods they eat, they might be suspicious of them as well.

All-Natural Technology

Recently, I skimmed through issues of trade magazines, such as *Food Technology* and *Food Processing*, that serve the food industry. In full-page advertisements, manufacturers insist the ingredients they market come direct from primordial Creation or, at least, that their products are identical to nature's own. For example, Roche Food Colours runs in these trade magazines a full-page ad that displays a bright pink banana over the statement: "When nature changes her colours, so will we." The ad continues:

Today more and more people are rejecting the idea of artificial colours being used in food and drink....

Our own food colours are, and always have been, strictly identical to those produced by nature.

We make pure carotenoids which either singly or in combination achieve a whole host of different shades in the range of yellow through orange to red.

And time and time again they produce appetising natural colours, reliably, economically, and safely.

Just like nature herself.

Advertisement after advertisement presents the same message: food comes directly from nature or, at least, can be sold as if it did. Consider, for example, a full-page advertisement that McCormick and Wild, a flavor manufacturer, runs regularly in *Food Processing*. The words "BACK TO NATURE" appear under a kiwi fruit dripping with juice. "Today's consumer wants it all," the advertisement purrs, "great taste, natural ingredients, and new ideas. . . . Let us show you how we can put the world's most advanced technology in natural flavors at your disposal. . . ."

This advertisement clearly states the mantra of the food industry: "Today's consumer wants it all." Great taste. Natural ingredients. New ideas. The world's most advanced technology. One can prepare the chemical basis of a flavor, for example, benzaldehyde—almond—artificially with just a little chemical know-

The terms "natural" and "patented" fit seamlessly together in a conceptual scheme in which there are no trade-offs and no compromises.

how, in this instance, by mixing oil of clove and amyl acetate. To get exactly the same compound as a "natural" flavor, one must employ far more sophisticated technology to extract and isolate benzaldehyde from peach and apricot pits. The "natural" flavor, an extract, contains traces of hydrogen cyanide, a deadly poison evolved by plants to protect their seeds from insects. Even so, consumers strongly prefer all-natural to artificial flavors, which sell therefore at a far lower price.

In its advertisements, the Haarmann & Reimer Corporation (H&R) describes its flavor enhancers as "HypR Clean Naturally." With "H&R as your partner, you'll discover the latest advances in flavor technology" that assure "the cleanest label possible." A "clean" label is one that includes only natural ingredients and no reference to technology. In a competing advertisement, Chr. Hansen's Laboratory announces itself as the pioneer in "culture and enzyme technologies. . . . And because our flavors are completely nat-

ural, you can enjoy the benefits of 'all-natural' labeling." Flavor manufacturers tout their stealth technology—i.e., technology so advanced it disappears from the consumer's radar screen. The consumer can be told he or she is directly in touch with nature itself.

The world's largest flavor company, International Flavors & Fragrances (IFF) operates manufacturing facilities in places like Dayton, New Jersey, an industrial corridor of refineries and chemical plants. Under a picture of plowed, fertile soil, the IFF Laboratory, in a full-page display, states, "Where Nature is at work, IFF is at work." The text describes "IFF's natural flavor systems." The slogan follows: "IFF technology. In partnership with Nature." Likewise, MEER Corporation of Bergen, New Jersey, pictures a rainforest under the caption, "It's A Jungle Out There!" The ad states that "true-to-nature" flavorings "do not just happen. It takes . . . manufacturing and technical expertise and a national distribution network . . . for the creation of natural, clean label flavors."

Food colors are similarly sold as both all natural and high tech. "VegetoneH colors your foods *naturally* for a healthy bottom line," declares Kalsec, Inc., of Kalamazoo, Michigan. Its ad shows a technician standing before a computer and measuring chemicals into a test tube. The ad extols the company's "patented natural color systems." The terms "natural" and "patented" fit seamlessly together in a conceptual scheme in which there are no trade-offs and no compromises. The natural is patentable. If you think any of this is contradictory, you will not get far in the food industry.

Organic TV Dinners

As a typical American suburbanite, I can buy not just groceries but "Whole Foods" at Fresh Fields and other upscale supermarkets. I am particularly impressed by the number of convenience foods that are advertised as "organic." Of course, one might think that any food may be whole and that all foods are organic. Terms like "whole" and "organic," however, appeal to and support my belief that the products that carry these labels are less processed and more natural—closer to the family farm—than are those that are produced by multinational megacorporations, such as Pillsbury or General Foods.

My perusal of advertisements in trade magazines helped disabuse me of my belief that all-natural, organic, and whole foods are closer to nature in a substantive sense than other manufactured products. If I had any residual credulity, it was removed by an excellent cover story, "Behind the Organic-Industrial Complex," that appeared in a recent issue of the *New York Times Magazine*. The author, Michael Pollan, is shocked, shocked to find that the prepackaged

microwavable all-natural organic TV dinners at his local Whole Foods outlet are not gathered from the wild by red-cheeked peasants in native garb. They are highly-processed products manufactured by multinational corporations. Contrary to the impression created by advertisements, organic and other all-natural foods are often fabricated by the same companies—using comparable technologies—as those that produce Velveeta and Miracle Whip. And the ingredients come from as far away as megafarms in Chile—not from local farmers' markets.

Reformers who led the organic food movement in the 1960s wished to provide an alternative to agribusiness and to industrial food production, but some of

Consumers inspect food labels to ward off artificial ingredients; yet they also want the convenience of a low-priced, pre-prepared, all-natural dinner.

these reformers bent to the inevitable. As Pollan points out, they became multimillionaire executives of Pillsbury and General Mills in charge of organic food production systems. This makes sense. A lot of advanced technology is needed to produce and market an all-natural or an organic ready-to-eat meal. Consumers inspect food labels to ward off artificial ingredients; yet they also want the convenience of a low-priced, pre-prepared, all-natural dinner.

At General Mills, as one senior vice president, Danny Strickland, told Pollan, "Our corporate philosophy is to give consumers what they want with no trade-offs." Pollan interprets the meaning of this statement as follows. "At General Mills," Pollan explains, "the whole notion of objective truth has been replaced by a value-neutral consumer constructivism, in which each sovereign shopper constructs his own reality."

Mass-marketed organic TV dinners do not compromise; they combine convenience with a commitment to the all-natural, eco-friendly, organic ideology. The most popular of these dinners are sold by General Mills through its subsidiary, Cascadian Farms. The advertising slogan of Cascadian Farms, "Taste You Can Believe In," as Pollan observes, makes no factual claims of any sort. It "allows the consumer to bring his or her personal beliefs into it," as the Vice President for Marketing, R. Brooks Gekler, told Pollan. The absence of any factual claim is essential to selling a product, since each consumer buys an object that reflects his or her particular belief system.

What is true of marketing food is true of virtually every product. A product will sell if it is all-natural and eco-friendly and, at the same time, offers the con-

sumer the utmost in style and convenience. A recent *New York Times* article, under the title, "Fashionistas, Ecofriendly and All-Natural," points out that the sales of organic food in the United States topped \$6.4 billion in 1999 with a projected annual increase of 20 percent. Manufacturers of clothes and fashion accessories, such as solar-powered watches, are cashing in on the trend. Maria Rodale, who helps direct a publishing empire covering "natural" products, founded the women's lifestyle magazine *Organic Style*. Rodale told the *Times* that women want to do the right thing for "the environment but not at the cost of living well." Advances in technology give personal items and household wares an all-natural eco-friendly look that is also the last word in fashion. Consumers "don't want to sacrifice anything," Ms. Rodale told a reporter. Why should there be a trade-off between a commitment to nature and a commitment to the good life? "Increasingly there are options that don't compromise on either front."

The food industry does not sell food any more than the fashion industry sells clothes or the automobile industry sells automobiles. They sell imagery. The slogan, "Everything the consumer wants with no trade-offs," covers all aspects of our dreamworld. Sex without zippers, children without zits, lawns without weeds, wars without casualties, and food without technology. Reality involves trade-offs and rather substantial ones. For this reason, if you tried to sell reality, your competitor would drive you out of business by avoiding factual claims and selling fantasy—whatever consumers believe in—instead. Consumers should not be confused or disillusioned by facts. They are encouraged to assume that they buy products of Nature or Creation. In view of this fantasy, how could consumers view genetic engineering with anything but suspicion?

Nature's Own Methods

Genetic engineering, with its stupendous capacity for increasing the efficiencies of food production in all

departments, including flavors and colorings, raises a problem. How can genetic recombination be presented to the consumer as completely natural—as part of nature's spontaneous course—as have other aspects of food technology? A clean label would tell consumers there is nothing unnatural or inauthentic about genetically engineered products. Industry has responded in

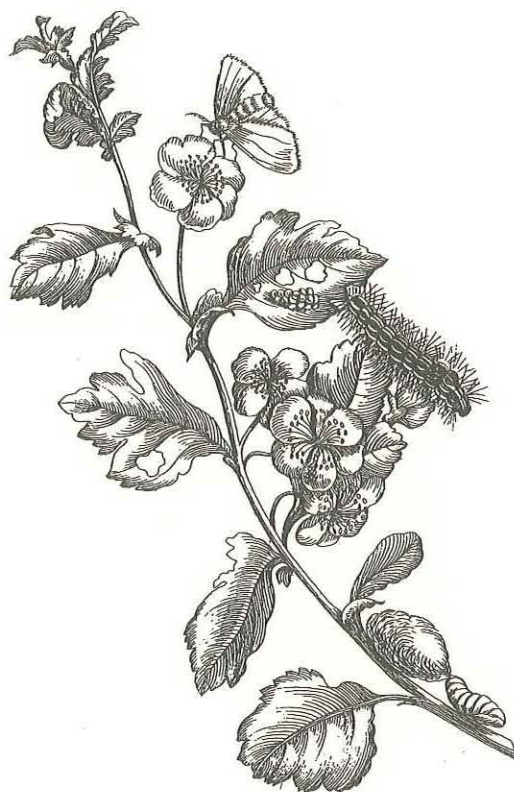
two complementary ways to this problem.

First, the food industry has resisted calls to label bio-engineered products. Gene Grabowski of the Grocery Manufacturers Association, for example, worries that labeling "would imply that there's something wrong with food, and there isn't." Michael J. Phillips, an economist with the Biotechnology Industry Organization, adds that labeling "would only confuse consumers by suggesting that the process of biotechnology might in and of itself have an impact on the safety of food. This is not the case."

Second, manufacturers point out that today's genetic technologies do not differ, except in being more precise, from industrial processes that result in the emulsifiers, stabilizers, enzymes, proteins, cultures, and other ingredients that do enjoy the benefits of a clean label. Virtually every plant consumed by human beings—canola, for example—is the product of so much breeding, hybridization, and modification that it hardly resembles its

wild ancestors. This is a good thing, too, since these wild ancestors were barely edible if not downright poisonous. Manufacturers argue that genetic engineering differs from conventional breeding only because it is more accurate and therefore changes nature less.

For example, Monsanto Corporation, in a recent full-page ad, pictures a bucolic landscape reminiscent of a painting by Constable. The headline reads, "FARMING: A picture of the Future." The ad then represents genetic engineering as all natural—or at least as natural as are conventional biotechnologies that have enabled humanity to engage successfully in agriculture. "The products of biotechnology will be based on nature's own methods," the ad assures the industry.



Engraving from Maria Sibylla Merian, *Erucarum Ortus, Alimentum et Paradoxa Metamorphosis* (Amsterdam 1718)

"Monsanto scientists are working with nature to develop innovative products for farmers of today, and of the future."

In this advertisement, Monsanto applies the tried-and-true formula to which the food industry has long been committed—presenting a technology as revolutionary, innovative, highly advanced, and as "based on nature's own methods." *Everything* is natural. Why not? As long as there are no distinctions, there are no trade-offs. Consumers can buy what they believe in. A thing is natural if the public believes it is. "There is something in this more than natural," as Hamlet once said, "if philosophy could find it out."

Four Concepts of the Natural

If consumers reject bioengineered food as "unnatural," what does this mean? In what way are foods that result from conventional methods of genetic mutation and selection, which have vastly altered crops and livestock, more "natural" than those that depend in some way on gene splicing? Indeed, is anything in an organic TV dinner "natural" other than, say, the rodent droppings that may be found in it? Since I am a

Why should anyone assume that a product that is "natural" is safer, more healthful, or more aesthetically or ethically attractive than one that is not?

philosopher, not a scientist, I am particularly interested in the moral, aesthetic, and cultural—as distinct from the chemical, biological, or physical—aspects of the natural world. I recognize that many of us depend in our moral, aesthetic, and spiritual lives on distinguishing those things for which humans are responsible from those that occur as part of nature's spontaneous course.

Philosophers have long pondered the question whether the concept of the natural can be used in a normative sense—that is, whether to say that a practice or a product is "natural" is somehow to imply that it is better to that extent than one that is not. Why should anyone assume that a product that is "natural" is safer, more healthful, or more aesthetically or ethically attractive than one that is not? And why is technology thought to be intrinsically risky when few of us would survive without quite a lot of it?

Among the philosophers who have questioned the "naturalistic fallacy"—the assumption that what is natural is for that reason good—the nineteenth-century British philosopher John Stuart Mill has been particularly influential. In his "Essay on Nature," Mill argues that the term "nature" can refer either to the totality of

things ("the sum of all phenomena, together with the causes which produce them") or to those phenomena that take place "without the agency . . . of man." Plainly, everything in the world—including every technology—is natural and belongs equally to nature in the first sense of the term. Mill comments:

To bid people to conform to the laws of nature when they have no power but what the laws of nature give them—when it is a physical impossibility for them to do the smallest thing otherwise than through some law of nature—is an absurdity. The thing they need to be told is, what particular law of nature they should make use of in a particular case.

Of nature in the second sense—that which takes place without the agency of man—Mill has a dour view. "Nearly all the things which men are hanged or imprisoned for doing to one another, are nature's every day performances," Mill wrote. Nature may have cared for us in the days of the Garden of Eden. In more recent years, however, humanity has had to alter Creation to survive. Mill concludes, "For while human action cannot help conforming to nature in one meaning of the term, the very aim and object of action is to alter and improve nature in the other meaning."

Following Mill, it is possible to distinguish four different conceptions of nature to understand the extent to which bioengineered food may or may not be natural. These four senses of the term include:

- 1) **Everything in the universe.** The significant opposite of the "natural" in this sense is the "supernatural." Everything technology produces has to be completely natural because it conforms to all of nature's laws and principles.
- 2) **Creation in the sense of what God has made.** The distinction here lies between what is sacred because of its pedigree (God's handiwork) and what is profane (what humans produce for pleasure or profit).
- 3) **That which is independent of human influence or contrivance.** The concept of "nature" or the "natural" in this sense, e.g., the "pristine," is understood as a privative notion defined in terms of the absence of the effects of human activity. The opposite of the "natural" in this sense is the "artificial."
- 4) **That which is authentic or true to itself.** The opposite of the "natural" in this sense is the specious, illusory, or superficial. The "natural" is trustworthy and honest, while the sophisticated, worldly, or contrived is deceptive and risky.

These four conceptions of nature are logically independent. To say that an item or a process—genetic engineering, for example—is "natural" because it obeys the laws of nature, is by no means to imply it is "natural" in any other sense. That genetically manipulated foods can be found within 1) the totality of phenomena does not show that they are "natural" in the sense that they are 2) part of primordial Creation; 3) free of human

**Graceful Simplicity: Toward a
Philosophy and Politics of
Simple Living**

Jerome M. Segal

In *Graceful Simplicity*, Jerome M. Segal expands and deepens the contemporary discourse on how to achieve a simpler, less harried way of life. He articulates a powerful conception of simple living—rooted in beauty, peace of mind, appreciativeness, and generosity of spirit. At the same time, he criticizes much of the “simple living movement” for believing that we can realize this conception as isolated individuals if only we free ourselves from overconsumption. Segal argues that, unfortunately, we have created a society in which human needs can be adequately met only at high levels of income. Instead of individual renunciation, he calls for a politics of simplicity that would put the facilitation of simple living at the heart of our approach to social and economic policy.

“Graceful Simplicity is a marvelously textured analysis of the elusive ideal of simple living. For those eager to find a way to get off the “more is better” treadmill, Jerome Segal offers insight and hope. Drawing upon philosophy, history, economics, sociology, and psychology, he explains why simplicity is not a simple concept and reveals why it retains its perennial allure. A must read.”

—David Shi, president of Furman University and
author of *The Simple Life: Plain Living and High
Thinking in American Culture*

*“In simple, graceful prose, Jerome Segal explains why
less elaborate modes of living would make us happier.”*

—Robert H. Frank, Cornell University,
author of *Luxury Fever*

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contrivance; or 4) authentic and expressive of the virtues of rustic or peasant life.

The problem of consumer acceptance of biotechnology arises in part because the food industry sells its products as natural in the last three senses. The industry wishes to be regulated, however, only in the context of the first conception of nature, which does not distinguish among phenomena on the basis of their histories, sources, or provenance. The industry argues that only the biochemical properties of its products should matter to regulation; the process (including genetic engineering) is irrelevant to food safety and should not be considered.

The food industry downplays the biochemical properties of its products, however, when it advertises them to consumers. The industry—at least if the approach taken by General Mills is typical—tries to give the consumer whatever he believes in. If the consumer believes in a process by which rugged farmers on the slopes of the Cascades raise organic TV dinners

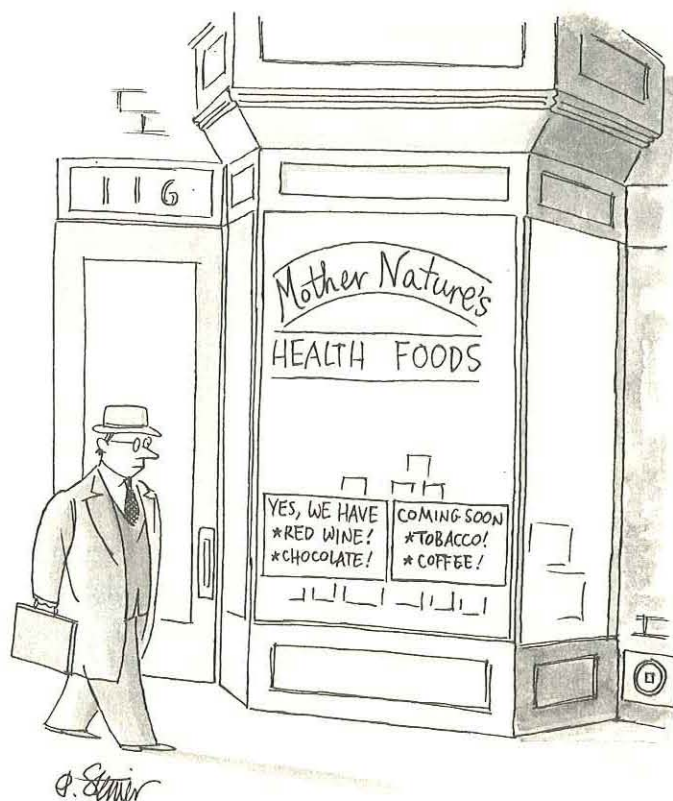
*The food industry downplays the biochemical
properties of its products . . . when it advertises
them to consumers. The industry . . . tries to
give the consumer whatever he believes in.*

from the soil by sheer force of personality, so be it. You will see the farm pictured on the package to suggest the product is close to Creation, free of contrivance, and authentic or expressive of rural virtues. What you will not see on any label—if the industry has its way—is a reference to genetic engineering. The industry believes regulators should concern themselves only with the first concept of nature—the scientific concept—and thus with the properties of the product. Concepts related to the process are used to evoke images that “give consumers what they want with no trade-offs.”

Shakespeare on Biotechnology

I confess that, as a consumer, I find organic foods appealing and I insist on “all-natural” ingredients. Am I just foolish? You might think that I would see through labels like “all natural” and “organic”—not to mention “whole” foods—and that I would reject them as marketing ploys of a cynical industry. Yet like many consumers, I want to believe that the “natural” is somewhat better than the artificial. Is this just a fallacy?

Although I am a professional philosopher (or perhaps because of this), I would not look first to the literature of philosophy to understand what may be an irrational—or at least an unscientific—commitment to



The New Yorker Collection, 1999,
Peter Steiner from cartoonbank.com.
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buying "all natural" products. My instinct would be to look in Shakespeare to understand what may be contradictory attitudes or inexplicable sentiments.

Shakespeare provides his most extensive discussion of biotechnology in *The Winter's Tale*, one of his comedies. In Act IV, Polixenes, King of Bohemia, disguises himself to spy upon his son, Florizel, who has fallen in love with Perdita, whom all believe to be a shepherd's daughter. In fact, though raised as a shepherdess, Perdita is the castaway daughter of the King of Sicily, a close but now estranged friend of Polixenes. Perdita welcomes the disguised Polixenes and an attendant lord to a sheep shearing feast in late autumn, offering them dried flowers "that keep/ Seeming and savour all winter long." Polixenes merrily chides her: "well you fit our ages/ With flowers of winter."

She replies that only man-made hybrids flourish so late in the fall:

... carnations, and streak'd gillyvors,
Which some call nature's bastards. Of that kind
Our rustic garden's barren; and I care not
To get slips of them.

Polixenes asks why she rejects cold-hardy flowers such as gillyvors, a dianthus. She answers that they come from human contrivance, not from "great creat-

ing nature." She complains there is "art" in their "piedness," or variegation. Polixenes replies: "Say there be;

Yet nature is made better by no mean
But nature makes that mean; so over that art
Which you say adds to nature, is an art
That nature makes. . . . This is an art
Which does mend nature—change it rather; but
The art itself is nature.

The statement, "The art itself is nature" anticipates the claim made by Monsanto that "The products of biotechnology will be based on nature's own methods." Polixenes, Mill, and Monsanto remind us that everything in the universe conforms to nature's own principles, and relies wholly on nature's powers. From a scientific perspective, in other words, all nature is one. The mechanism of a lever, for example, may occur in the physiology of a wild animal or in the structure of a machine. Either way, it is natural. One might be forced to agree, then, that genetic engineering applies nature's own methods and principles; in other words, "the art itself is nature."

The exchange between Perdita and Polixenes weaves together the four conceptions of nature I identified earlier in relation to John Stuart Mill. When Polixenes states, "The art itself is nature," he uses the term "nature" to comprise everything in the

Universe, that is, everything that conforms to physical law. Second, Perdita refers to "great creating nature," that is, to Creation, i.e., the primordial origin and condition of life before the advent of human society. Third, she contrasts nature to art or artifice by complaining that hybrids do not arise spontaneously but show "art" in their "piedness." Finally, Perdita refers to her "rustic garden," which, albeit cultivated, is "natural" in the sense of simple or unadorned, in contrast to the ornate horticulture that would grace a royal garden. The comparison between the court and the country correlates, of course, with the division that exists in Perdita herself—royal in carriage and character by her birth, yet possessed of rural virtues by her upbringing.

Shakespeare elaborates this last conception of "nature" as the banter continues between Perdita and the disguised Polixenes. To his assertion, "The art itself is nature," Perdita concedes, "So it is." Polixenes then drives home his point: "Then make your garden rich in gillyvors, / And do not call them bastards."

To which Perdita responds:

I'll not put
The dibble in earth to set one slip of them;
No more than were I painted I would wish
This youth should say 'twere well, and only therefore
Desire to breed by me.

Besides comparing herself to breeding stock—amusing in the context, since she speaks to her future father-in-law in the presence of his son—Perdita reiterates a fourth and crucial sense of the "natural." In this sense, what is "natural" is true to itself; it is honest, authentic, and genuine. This conception reflects

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The mechanism of a lever . . . may occur in the
physiology of a wild animal or in the structure
of a machine. Either way, it is natural.*

Aristotle's theory of the "nature" of things, which refers to qualities that are spontaneous because they are inherent or innate.

Perdita stands by her insistence on natural products—from flowers she raises to cosmetics she uses—in spite of Polixenes' cynical but scientific reproofs. Does this suggest Perdita is merely a good candidate for Ms. Rodale's organic chic? Should she receive a free introductory copy of *Organic Style*? Certainly not. There is something about Perdita's rejection of biotechnology that withstands this sort of criticism. Why have Perdita's actions a moral authority or authenticity that the choices consumers make today may lack?

Having It Both Ways

Perdita possesses moral authority because she is willing to live with the consequences of her convictions and of the distinctions on which they are based. By refusing to paint herself to appear more attractive, for example, Perdita contrasts her qualities, which are innate, to those of the "streak'd gillyvor," which owe themselves to technological meddling. This comparison effectively gives her the last word because she suits the action to it: she does not and would not paint herself to attract a lover. Similarly, Perdita does not raise hybrids, though she admits, "I would I had some flow'rs" that might become the "time of day" of the youthful guests at the feast, such as Florizel.

Perdita does not try to have it both ways—to reject hybrids but also to grow cold-hardy flowers. She

*Today's consumers insist . . . on the local, the
native, the spontaneous. Yet . . . they are
unwilling to live with the consequences of
their principles or preferences.*

ridicules those who match lofty ideals with ordinary actions—whose practice belies their professed principles. For example, Camillo, the Sicilian lord who attends Polixenes, compliments Perdita on her beauty. He says, "I should leave grazing, were I of your flock, / And only live by gazing." She laughs at him and smartly replies, "You'd be so lean that blasts of January / Would blow you through and through."

Many people today share Perdita's affection for nature and her distaste for technology. Indeed, it is commonplace to celebrate Nature's spontaneous course and to condemn the fabrications of biotechnology. Jeremy Rifkin speaks of "Playing Ecological Roulette with Mother Nature's Designs;" Ralph Nader has written the foreword to a book titled, *Genetically Engineered Food: Changing the Nature of Nature*. The Prince of Wales, in a tirade against biotechnology, said, "I have always believed that agriculture should proceed in harmony with nature, recognising that there are natural limits to our ambitions. We need to rediscover a reverence for the natural world to become more aware of the relationship between God, man, and creation."

While consumers today share Perdita's preference for the natural in the sense of the authentic and unadorned and spurn technological meddling, they do not share her willingness to live with the consequences of their commitment. They expect to enjoy year round fruits and vegetables of unblemished appearance, and consistent taste and nutritional quality. Gardeners wish to plant lawns and yards with species that are native and indigenous, and they support commissions

and fund campaigns to throw back the "invasions" of exotic and alien species. Yet they also want lawns that resist drought, blight, and weeds, and—to quote Perdita again—to enjoy flowers that "come before the swallow dares, and take/The winds of March with beauty." In other words, the consumer wants it both ways. Today's consumers, as Ms. Rodale knows, "don't want to sacrifice anything." Today's consumers insist, as did Perdita, on the local, the native, the spontaneous. Yet they lack her moral authority because they are unwilling to live with the consequences of their principles or preferences. Consumers today refuse to compromise; they expect fruits and flowers that survive "the birth/ Of trembling winter" and are plentiful and perfect all year round.

Naked Lunch

Those who defend genetic engineering in agriculture are likely to regard as irrational consumer concerns about the safety of genetically manipulated crops. The oil and other products of Roundup Ready soybeans, according to this position, pose no more risks to the consumer than do products from conventional soybeans. Indeed, soybean oil, *qua* oil, contains neither DNA nor protein and so will be the same whether or not the roots of the plant are herbicide resistant. Even when protein or DNA differs, no clear argument can be given to suppose that this difference—e.g., the order of a few nucleotides—involves any danger. Crops are the outcome of centuries or millennia of genetic crossing, selection, mutation, breeding, and so on. Genetic engineering adds but a wrinkle to the vast mountains of technology that separate the foods we eat from wild plants and animals.

The same kind of argument may undermine consumer beliefs that "natural" colors and flavors are safer or more edible than artificial ones. In fact, chemical compounds that provide "natural" and "artificial" flavors can be identical and may be manufactured at the same factories. The difference may lie only in the processes by which they are produced or derived. An almond flavor that is produced artificially, as I have mentioned, may be purer and therefore safer than one extracted from peach or apricot pits. Distinctions between the natural and the artificial, then, need not correspond with differences in safety, quality, or taste—at least from the perspective of science.

Distinctions consumers draw between the natural and the artificial—and preferences for the organic over the engineered—reflect differences that remain important nonetheless to our cultural, social, and aesthetic lives. We owe nature a respect that we do not owe technology. The rise of objective, neutral, physical and chemical science invites us, however, to disregard all such moral, aesthetic, and cultural distinctions and act

The New Progressive Era: Toward a Fair and Deliberative Democracy

Peter Levine

A century ago, Americans embarked on a period of civic renewal and political reform. Today, amid deep dissatisfaction with our major institutions, there are signs that a new movement may revive the spirit of the original Progressive Era. Peter Levine draws inspiration from the great Progressive leader Robert M. LaFollette, Sr., and his circle, which included John Dewey, Jane Addams, and Louis Brandeis. He discusses the shortcomings of this group as well as their successes, but he argues that their ideal of a fair and deliberative democracy is right for our time. Bringing their Progressive philosophy to bear on contemporary concerns, Levine advocates campaign finance reform, an entirely different approach to regulation, new styles of journalism and civic education, and fundamental changes in the tax system. Combining philosophical arguments, historical background, empirical data, and concrete proposals, *The New Progressive Era* offers today's most comprehensive plan for civic renewal and political reform.

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only on facts that can be scientifically analyzed and proven. Indeed, the food industry, when it is speaking to regulators rather than advertising to consumers, insists on this rational, objective approach.

In an essay titled, "Environments at Risk," Mary Douglas characterizes the allure of objective, rational, value-neutral, science:

This is the invitation to full self-consciousness that is offered in our time. We must accept it. But we should do so knowing that the price is William Burroughs' *Naked Lunch*. The day when everyone can see exactly what it is on the end of everyone's fork, on that day there is no pollution and no purity and nothing edible or inedible, credible or incredible, because the classifications of social life are gone. There is no more meaning.

Advances in genetic engineering invite us to the full self-consciousness that Douglas describes and aptly analogizes to the prison life depicted in *Naked Lunch*. It is the classifications of social life—not those of biological science—that clothe food and everything else with meaning. Genetic engineering poses a problem principally because it crosses moral, aesthetic, or cultural—not biological—boundaries. The fact that the technology exists and is successful shows, indeed, that the relevant biological boundaries (i.e., between species) that might have held in the past now no longer exist.

Given advances in science and technology, how can we maintain the classifications of social life—for example, distinctions between natural and artificial flavors and between organic and engineered ingredients? How may we, like Perdita, respect the difference between the products of "great creating nature" and those of human contrivance? Perdita honors this distinction by living with its consequences. Her severest test comes when Polixenes removes his disguise and threatens to condemn her to death if she ever sees Florizel again. Florizel asks her to elope, but she resigns herself to the accident of their origins—his high, hers (she believes) low—that separates them forever. Dressed up as a queen for the festivities, Perdita tells Florizel: "I will queen it no further. Leave me, sir; I will go milk my ewes and weep."

Perdita, of course, both renounced her cake and ate it, too. In Act IV, she gives up Florizel and his kingdom, but in Act V she gets them. Her true identity as a princess is eventually discovered, and so the marriage happily takes place. If you or I tried to live as fully by our beliefs and convictions—if we insisted on eating only those foods that come from great creating nature rather than from industry—we would not be so fortunate. "You'd be so lean that blasts of January / Would blow you through and through."

Perdita is protected by a playwright who places her in a comedy. Shakespeare allows her to live up to her convictions without compromising her lifestyle. This is exactly what the food industry promises to do—"to

give consumers what they want with no trade-offs." It is exactly what Ms. Rodale offers—to protect the environment "but not at the cost of living well." The food, fashion, and other industries work off stage to arrange matters so that consumers can renounce genetic engineering, artificial flavors, industrial agriculture, and multinational corporations. At the same time, consumers can enjoy an inexpensive, all-natural, organic, TV dinner from Creation via Cascadian Farms.

Perdita lives in the moral order of a comedy. In that moral order, no compromises and no trade-offs are necessary. You and I are not so fortunately situated. Indeed, we must acknowledge the tragic aspect of life—the truth that good things are often not compatible and that we have to trade off one for the sake of obtaining the other. The food industry, by suggesting that we can have everything we believe in, keeps us from recognizing that tragic truth. The industry makes all the compromises and hides them from the consumer.

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This article is based on a presentation made at the National Agricultural Biotechnology Council's annual meeting, "High Anxiety and Biotechnology: Who's Buying, Who's Not, and Why?," held May 22-24, 2001. A version of this article is forthcoming in NABC Report 13 symposium proceedings.

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Junk Science and Environmental Policy: Obscuring Public Debate with Misleading Discourse

Charles N. Herrick and Dale Jamieson

The term "junk science" has become a fixture of popular and journalistic parlance, with media accounts leaving the impression that junk science is pervasive and far-reaching. News stories and OpEds suggest that junk science is especially troublesome in the arena of environmental policy. We are told that an "epidemic of junk science is afflicting the courts," that "scientific fraud is endemic," that "federal agencies [are] running amok with junk science," and that "the core of real science [has been] overwhelmed by a flurry of junk science." One newspaper editorial asserted that "[t]here is a battle taking place in America today between real science and junk science. . . ."

Many in the environmental science and policy communities might dismiss such claims as journalistic exuberance. While it is well known that the quality of environmental research in the U.S. varies, with plenty of room for improvement, there is little reason to accept the existence of any sort of crisis. The National Science Board's Task Force on the Environment recently completed an exhaustive review of the state of environmental science in the United States. The Task Force conducted hearings and town meetings, solicited commentary from scientists, government agencies, and the private sector, and reviewed hundreds of reports and documents relating to environmental research and assessments. While this effort resulted in numerous suggestions and recommendations, nothing in the report suggests an epidemic of junk science. Recent reviews of the Environmental Protection Agency support the same conclusion, as do current annual reports and leadership messages from the National Academy of Sciences, American Association for the Advancement of Science, and the National Council for Science and the Environment.

However, widespread media claims about the prevalence of junk science should be taken seriously. For most people, the news media are the most important sources of information about environmental issues. Studies show that public attitudes about the

environment tend to mirror the content and emphasis of media stories. While one can find debates over the merit and desirability of environmental and public health policies in such venues as the courts, legislative proceedings, public meetings, hearings, protests and other events, the media play a central role in these debates by providing forums for public discourse through OpEd pieces, letters to the editor, and so on; and by reporting on debates occurring in other forums.

Even more importantly, examination of media accounts of junk science helps reveal how the public is asked to view environmental science. According to syndicated columnist, Ellen Goodman, "[We] need

*Examination of media accounts of junk science
helps reveal how the public is asked to view
environmental science.*

the scientific community to help separate the science from the fiction, [we] need to call on scientists the way [we] call on tech services to load in some new software." Goodman's analogy between science and "tech services" should ring alarm bells with anyone concerned about the role of science in American society. Loading software is a rote, menu-driven activity, while science-based assessments of environmental issues are frequently hyper-complex, multi-disciplinary, multi-study activities that combine and attempt to integrate numerous approaches and methodologies: mathematical modeling, long-term monitoring, theoretical and mechanistic research, and others as well. The suggestion that integrated assessments of science-based policy issues are even remotely similar to installing the latest version of Microsoft Word rests on serious misunderstandings of the scientific process and the role that it plays in the formulation and implementation of environmental policy.

What Is Junk Science?

In a recent interview in *Science*, (then Governor) George W. Bush repeatedly responded to questions about environmental policy by insisting that regulations must be based on "sound" science. While he did not explicitly refer to "junk science," "sound science" is its most frequently used antonym. Also, in the media junk science often is contrasted with "real," "logical," or even "truthful" science.

The Union of Concerned Scientists (UCS) defines "junk science" as "work presented as valid science that falls outside the rigors of the scientific method and the peer review process. It can take the form of presentation of selective results, politically motivated distortions of scientifically sound papers, or the publishing of quasi-scientific non-reviewed journals." Building on the UCS definition, we identified five practices typically associated with questionable or unacceptable scientific activity:

- **Lack of Appropriate Credentials:** Scientific findings are inadequate or suspect because the investigator or user of the information lacks appropriate background or training.
- **Lack of Peer Review:** Scientific data or findings are inadequate or suspect because they have not been subjected to peer review or were found lacking during the peer review process.
- **Lack of Publication:** Specific data or findings should be treated with caution because they have not been published in a recognized journal or presented in an appropriate venue.

- **Weak Bibliographic Lineage:** Data or findings should be dismissed or treated with caution because they are not based upon or derived from a corpus of preceding research.
- **Outright Fraud:** Data or findings should be dismissed because researchers manipulated their approach or falsified findings.

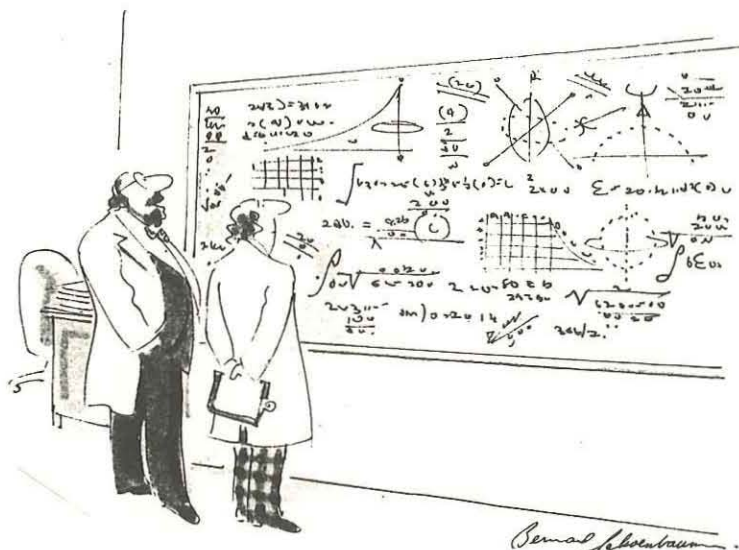
With these criteria in mind, we set out to explore the ways in which charges of junk science are leveled at a study or area of inquiry because the science on which it rests is associated with unacceptable standards concerning credentials, peer review, publication, bibliographic lineage, or because it contains fraudulent data.

Junk Science in the Popular Media: A Content Analysis

We conducted a content analysis of on-line news media text to assess the context and usage characteristics of the term "junk science." Data for this evaluation consisted of news media stories for the five-year period from 1995 to 2000. News stories were searched on the Lexus-Nexus database using the search command "junk science." The search yielded a total of 203 stories, 45 of which were evaluated. (We did not review articles dealing with subjects such as fad diets or UFOs.) All articles reviewed dealt with the use of scientific information in a policy or regulatory context. We reviewed and evaluated these articles according to the five attributes discussed above. Table 1 (see inset) summarizes the kinds of environmental and health

Table 1
Environmental and Health Issues Characterized as Junk Science in OpEds and News Stories

Global Warming	Endangered species	Ergonomic standards
Electro-magnetic flux from power lines	Dursban pesticides	Tobacco addiction
Pesticide use in schools	Trans fats and coronary disease	Second-hand tobacco smoke
Silicon breast implants	Exposure thresholds and effects of radiation	Sodium and high blood pressure
Air bag safety	Genetically modified corn	Endocrine disruptors and human reproductive effects
Air pollution in National Parks	Mad cow disease	Fen-phen and heart damage
Gender and clinical trials for new drugs	Oxygenated fuel and air pollution control	Evaluation of affirmative action programs
Mortality and health risks from air pollution	Dioxin clean-up at Times Beach, Missouri	Nitrogen oxide emissions in the Eastern United States
Sea level rise due to climatic change	Pollution control for SUVs	Wildlife management in National Parks



"Oh, if only it were so simple."

The New Yorker Collection, 1987,
Bernard Schoenbaum from cartoonbank.com.
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topics characterized as "junk science" in OpEds and news stories.

Notably, the articles we reviewed provided almost *no evidence of substantive or procedural inadequacies in the science* used to support environmental or public health policies. As indicated in Table 2 (Attribute Set 2A, see inset) less than ten percent of the articles we reviewed tied the charge of "junk science" to one or more of the criteria for failure of scientific credibility identified above. Only one of the articles attempted to support the charge of "junk science" by making at least some reference to scientific method. In most cases, authors seemed to take for granted that their readership already understands and is fully conversant with the notion of junk science.

In light of these findings, we again reviewed the articles in an effort to identify and summarize rationales that were provided to support or illustrate the charges of junk science. As Table 2 (Attribute Set 2B) summarizes, these articles focus on such issues as:

- **Failure to Consider Social and Economic Implications:** Many articles describe undesirable economic or social consequences anticipated from

the proposed (or existing) regulations or policy regimes.

- **Inappropriate Weighting of Results:** Many articles claim that regulators or policy advocates excessively emphasize particular studies or approaches while ignoring or undervaluing other relevant data or information.
- **Failure to Cite Opposing Evidence:** Many articles mention or allude to studies that are claimed to support an opposing or alternative policy or regulatory perspective.
- **Assertions of Falsity:** Many articles make unsupported claims that the science used to support a particular policy or regulatory program is flawed or wrong.
- **Bias of Origin:** Many articles note that the science used to support a particular policy or regulatory position was conducted by an individual or institution with an expressed or implied interest in the outcome.

Many of the charges of junk science leveled in these articles seem unsupportable. Nearly one-third of the articles founded their use of the term on either (a) unsupported assertions of falsity, or (b) a claim or sug-

gestion that the research was flawed because it was conducted by an individual or institution with a material stake in the issue at hand. Another third of the articles associated the charge of junk science with anticipated negative socioeconomic outcomes of a proposed policy or regulation.

Other charges of junk science are more substantive. Fifty-five percent of the articles based the assertion of junk science on the claim that investigators or policy advocates inappropriately emphasized some evidence over other relevant findings; and 42 percent of the articles cited or alluded to other publications or research that would support an alternative policy perspective.

Junk Science as a Contrarian Trope

Very few articles about junk science actually address questionable or unacceptable scientific activities. The most striking finding of our content analysis is that an

overwhelming majority (84%) of the articles contained an anti-regulatory message or admonition, asserting that a particular policy or regulatory perspective or program should be reversed or opposed because it is based upon junk science. None of the articles reviewed used the term in conjunction with a pro-regulatory message.

We believe that, in many of these articles, the phrase "junk science" is being used as a *trope*. An expression is used as a trope when a writer or speaker uses a word or expression figuratively in order to give vividness or emphasis to an idea. Even when an expression is used figuratively instead of literally, it still tends to evoke the values, beliefs, and stereotypes associated with the original, or literal, use of the term. Thus, the strategic use of linguistic tropes can have powerful rhetorical and practical ramifications.

We suggest that our analysis of the articles surveyed reveals that the phrase "junk science" is meaningful pri-

Table 2
Content Analysis of Forty-five Articles Containing the Term "Junk Science"

Attribute Set (2A)	Number of Articles Displaying Attribute	Percentage of Articles Displaying Attribute
Lack of appropriate credentials	2	4%
Lack of peer review	4	8%
Lack of publication	1	2%
Weak bibliographic lineage	2	4%
Outright fraud	2	4%
Attribute Set (2B)	Number of Articles Displaying Attribute	Percentage of Articles Displaying Attribute
Failure to consider social and economic implications	15	33%
Inappropriate weighting of results	25	55%
Failing to cite opposing evidence	19	42%
Assertion of falsity	15	33%
Bias of origin	15	33%
Anti-regulatory thesis or admonition	38	84%

marily from a politicized or ideological perspective. Although "junk science" appears to have little meaning if treated in a strictly descriptive manner, it plays a strategic role as part of a contrarian, anti-regulatory discourse. Almost none of the articles that we reviewed documented scientific analysis conducted in a way that is inadequate or inappropriate. Despite the use of the phrase, "junk science," most of the articles reviewed were critiques of environmental or public health policies based on *politics or values rather than on science*. In other words, the imprimatur of science is being smuggled into deliberations that actually deal with values and politics.

The Role of Environmental Science in Public Policy Assessment: Some Deeper Issues

Many of the articles we reviewed appear to rest on misunderstandings about the nature of scientific assessment in a policy context. These assessments typically address such complex phenomena as global warming, acid rain, or regional-scale ecosystem degradation. These phenomena cannot be adequately characterized by applying a single variable or metric of concern. Only rarely does a policy decision hinge on the truth or falsity of a single, discrete hypothesis or proposition. As a result, scientific assessments conducted to support environmental policy formulation are frequently large, multi-disciplinary, multi-year undertakings that involve dozens to hundreds of individual studies. These studies can all pass muster in terms of quality, but nevertheless provide only ambiguous guidance with respect to policy outcomes.

The imprimatur of science is being smuggled into deliberations that actually deal with values and politics.

As we have argued elsewhere, such research can produce a banquet of high quality data and findings, but cannot determine which dishes should be considered by policy makers and which should weigh most heavily in the policy choice. The integration of scientific findings to support a particular policy or regulatory regime is a challenging and tricky proposition involving the development and application of numerical models, stipulation of scenarios, and the use of decision analytical tools. But most importantly, integration of individual studies involves *judgment*.

Apparent misunderstanding of the nature of science and policy assessments is not limited to those in the media; professional policy and regulatory analysts also seem confused. In the Policy Forum section of the jour-

nal *Science*, Linda Cohen and Robert Hahn asserted that too many environmental regulations are founded upon "false or misleading" research findings. One of their recommendations is that Congress should establish a new agency with the task of evaluating scientific findings that form the basis for those regulations which have an annual economic impact of \$100 million or more. They argue that "government should be allowed to use [particular] research findings in developing regulations only after the [independent] agency has replicated the results or has certified that the results have been replicated." This proposal would have the practical effect of delaying the implementation of regulations that in many cases have taken years or even decades to develop. However, the more fundamental problem with this proposal is that major environmental policy positions or regulations are often based upon hundreds of (more or less) independent research activities. It is almost inconceivable to imagine that an independent agency could replicate (or certify the replication of) the findings of, say, the National Acid Precitation Assessment Program (NAPAP), a 10-year, \$850 million assemblage of hundreds of distinct research, monitoring, and modeling activities. Moreover, no single study could have unambiguously confirmed or denied the validity of the acid rain provisions of the Clean Air Act Amendments of 1990. Proposals such as those put forward by Cohen and Hahn gain their apparent plausibility by conflating science-based policy assessment with something akin to software installation.

Concluding Remarks

The junk science trope tends to shatter rather than inform civic dialogue, and it does little to enhance public understanding of environmental science and its social applications. To be sure, public understanding can be deepened—citizens should not only better understand science and scientific advances generally, but they can also be better educated about how science is used to help formulate and implement environmental policy. Science assessments, such as those related to the U.S. Global Climate Change Research Program, are fueled by scientific rigor, but ultimately are held together by something much more akin to creative judgment. Widespread and uncritical acceptance of the language of junk science serves—wittingly or not—to nourish a disabling belief about the conduct of science in support of environmental policy.

Although our review was not based on a formal, statistical design, we believe the results are suggestive. Rather than creating independent government agencies to police the application of science to environmental policy matters, we should take steps to assure that the popular media and policy advocates avoid the use

Truth v. Justice: The Morality of Truth Commissions

Robert I. Rotberg and Dennis Thompson, Editors

The truth commission is an increasingly common fixture of newly democratic states with repressive or strife-ridden pasts. From South Africa to Haiti, truth commissions are at work with varying degrees of support and success. To many, they are the best—or only—way to achieve a full accounting of crimes committed against fellow citizens and to prevent future conflict. Others question whether a restorative justice that sets the guilty free, that cleanses society by words alone, can deter future abuses and allow victims and their families to heal. Here, leading philosophers, lawyers, social scientists, and activists representing several perspectives look at the process of truth commissioning in general and in post-apartheid South Africa. They ask whether the truth commission, as a method of seeking justice after conflict, is fair, moral, and effective in bringing about reconciliation.

"This book discusses the vast and complex range of choices in between blanket amnesty and total accountability through criminal justice, and does so with engaged and critical sympathy."

—Albie Sachs, Justice of the Constitutional Court of South Africa

"The case for truth commissions is strongly and persuasively presented in these essays, which bring together a remarkable group of lawyers, political theorists, and historians, all of them intelligently engaged with each other's concerns."

—Michael Walzer

In addition to the editors, the contributors are Amy Gutmann, Rajeev Bhargava, Elizabeth Kiss, David A. Crocker, André du Toit, Alex Boraine, Dumisa Ntsebeza, Lisa Kois, Ronald C. Slye, Kent Greenawalt, Sanford Levinson, Martha Minow, Charles S. Maier, Charles Villa-Vicencio, and Wilhelm Verwoerd.

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of tropes and figurative descriptions of complex scientific characterizations of environmental issues. "Junk science" is a punchy, dazzling, but highly misleading description of the use of science in environmental policy formulation.

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Sources: The initial quotes concerning "junk science" occur in: D. Byrne, *Chicago Sun-Times* (6 December, 1998); A. Chase, *The Denver Post* (19 June, 1998); S. Milloy, *Wall Street Journal* (10 August, 1999); P. Raeburn, *Business Week* (8 April, 1996), and R. Gots, *The Tampa Tribune* (17 March 1997). National Science Board, *Environmental Science and Engineering for the 21st Century* (National Science Board, 29 July 1999); National Research Council, *Strengthening Science at the Environmental Protection Agency: Research Management and Peer Review* (National Academy Press, 2000); M. Powell, *Science at EPA: Information in the Regulatory Process* (Resources for the Future, 2000); *The Nation's Environmental Information Needs Assessment*, (Westat study, commissioned by the Environmental Protection Agency, 30 December 1999); D. Bengston and D. Fann, *Evaluation Review*, vol. 23 (1999); W. Gamson and A. Modigliani, *American Journal of Sociology*, vol. 95 (1989); T. Atwater, M. Salwen, and R. Anderson, *Journalism Quarterly*, vol. 62 (1985); E. Goodman, *The Baltimore Sun* (24 February 1998); interview with George W. Bush in *Science*, vol. 290 (13 October, 2000); P. Hollingsworth, *American Scientist* (Jan/Feb 2000); *Stanford Encyclopedia of Philosophy*, available on-line at <http://plato.stanford.edu/> (2000); on the topic of research and its ability to offer policy recommendations, see C. Herrick and D. Jamieson, "The Social Construction of Acid Rain: Some Implications for Science/Policy Assessment," *Global Environmental Change* 5 (1995); T. Stewart in *Prediction: Science, Decision Making and the Future of Nature*, edited by D. Sarewitz, R. Pielke, and R. Byerly (Island Press, 2000); L. Cohen and R. Hahn, "A Solution to Concerns Over Public Access to Scientific Data," *Science*, vol. 285 (23 July 1999); C. Herrick, "Predictive Modeling of Acid Rain: Obstacles to Generating Useful Information," in D. Sarewitz et al. volume. Copies of the articles reviewed in the content analysis are available from the authors.

Globalization and Its Discontents

Herman E. Daly

Every day, newspaper articles and television reports insist that those who oppose globalization must be isolationists or—even worse—xenophobes. This judgment is nonsense. The relevant alternative to globalization is internationalization, which is neither isolationist nor xenophobic. Yet it is impossible to recognize the cogency of this alternative if one does not properly distinguish these two terms.

"Internationalization" refers to the increasing importance of relations among nations. Although the basic unit of community and policy remains the nation, increasingly trade, treaties, alliances, protocols, and other formal agreements and communications are necessary elements for nations to thrive. "Globalization" refers to global economic integration of many formerly national economies into one global economy. Economic integration is made possible by free trade—especially by free capital mobility—and by easy or uncontrolled migration. In contrast to internationalization, which simply recognizes that nations increasingly rely on understandings among one another, globalization is the effective erasure of national boundaries for economic purposes. National boundaries become totally porous with respect to goods and capital, and ever more porous with respect to people, who are simply viewed as cheap labor—or in some cases as cheap human capital.

In short, globalization is the economic integration of the globe. But exactly what is "integration"? The word derives from *integer*, meaning one, complete, or whole. Integration means much more than "interdependence"—it is the act of combining separate although related units into a single whole. Since there can be only one whole, only one unity with reference to which parts are integrated, it follows that global economic integration logically implies national economic *disintegration*—parts are torn out of their national context (dis-integrated), in order to be re-integrated into the new whole, the globalized economy.

As the saying goes, to make an omelet you have to break some eggs. The disintegration of the national egg is necessary to integrate the global omelet. But this obvious logic, as well as the cost of disintegration, is frequently met with denial. This article argues that globalization is neither inevitable nor to be embraced,

much less celebrated. Acceptance of globalization entails several serious consequences, namely, standards-lowering competition, an increased tolerance of mergers and monopoly power, intense national specialization, and the excessive monopolization of knowledge as "intellectual property." This article discusses these likely consequences, and concludes by advocating the adoption of internationalization, and not globalization.

The Inevitability of Globalization?

Some accept the inevitability of globalization and encourage others in the faith. With admirable clarity, honesty, and brevity, Renato Ruggiero, former director-general of the World Trade Organization, insists that "We are no longer writing the rules of interaction among separate national economies. We are writing the constitution of a single global economy." His sentiments clearly affirm globalization and reject internationalization as above defined. Further, those who hold

Globalization is the effective erasure of national boundaries for economic purposes.

Ruggiero's view also subvert the charter of the Bretton Woods institutions. Named after a New Hampshire resort where representatives of forty-four nations met in 1944 to design the world's post-World War II economic order, the institutions conceived at the Bretton Woods International Monetary Conference include the World Bank and the International Monetary Fund. The World Trade Organization evolved later, but functions as a third sister to the World Bank and the International Monetary Fund. The nations at the conference considered proposals by the U.S., U.K., and Canadian governments, and developed the "Bretton Woods system," which established a stable international environment through such policies as fixed exchange rates, currency convertibility, and provision for orderly exchange rate adjustments. The Bretton



A World Trade Organization protester stands among flaming trash bins during protests in downtown Seattle on November 30, 1999. Police in riot gear fired pepper spray at demonstrators, who blocked streets and forced a delay in opening ceremonies of the largest trade event ever staged in the United States. (AP Wide World Photo/Peter Dejong)

Woods Institutions were designed to facilitate *internationalization*, not *globalization*, a point ignored by director-general Ruggiero.

The World Bank, along with its sister institutions, seems to have lost sight of its mission. After the disruption of its meetings in Washington, D.C. in April 2000, the World Bank sponsored an Internet discussion on globalization. The closest the World Bank came to offering a definition of the subject under discussion was the following: "The most common core sense of economic globalization. . . surely refers to the observation that in recent years a quickly rising share of economic activity in the world seems to be taking place between people who live in different countries (rather than in the same country)." This ambiguous description was not improved upon by Mr. Wolfensohn, president of the World Bank, who told the audience at a subsequent Aspen Institute conference that "Globalization is a practical methodology for empow-

ering the poor to improve their lives." That is neither a definition nor a description—it is a wish. Further, this wish also flies in the face of the real consequences of global economic integration. One could only sympathize with demonstrators protesting Mr. Wolfensohn's speech some fifty yards from the Aspen conference facility. The reaction of the Aspen elite was to accept as truth the title of Mr. Wolfensohn's speech, "Making Globalization Work for the Poor," and then ask in grievous tones, "How could anyone demonstrate against that?"

Serious consequences flow from the World Bank's lack of precision in defining globalization but lauding it nonetheless. For one thing, the so-called definition of globalization conflates the concept with that of internationalization. As a result, one cannot reasonably address a crucial question: Should these increasing transactions between people living in different countries take place *across national boundaries* that are economically signifi-

cant, or *within an integrated world* in which national boundaries are economically meaningless?

The ambiguous understanding of globalization deprives citizens of the opportunity to decide whether they are willing to abandon national monetary and fiscal policy, as well as the minimum wage. One also fails to carefully consider whether economic integration entails political and cultural integration. In short, will political communities and cultural traditions wither away, subsumed under some monolithic economic imperative? Although one might suspect economic

In globalization, power is drained away from national communities and local enterprises, and aggregates in transnational corporations.

integration would lead to political integration, it is hard to decide which would be worse—an economically integrated world *with*, or *without*, political integration. Everyone recognizes the desirability of community for the world as a whole—but one can conceive of two very different models of world community: (1) a federated community of real national communities (internationalization), versus (2) a cosmopolitan direct membership in a single abstract global community (globalization). However, at present our confused conversations about globalization deprive us of the opportunity to reflect deeply on these very different possibilities.

This article has suggested that at present organizations such as the International Monetary Fund and the World Bank (and, by extension, the World Trade Organization) no longer serve the interests of their member nations as defined in their charters. Yet if one asks whose interests are served, we are told they service the interests of the integrated “global economy.” If one tries to glimpse a concrete reality behind that grand abstraction, however, one can find no individual workers, peasants, or small businessmen represented, but only giant fictitious individuals, the transnational corporations. In globalization, power is drained away from national communities and local enterprises, and aggregates in transnational corporations.

The Consequences of Globalization

Globalization—the erasure of national boundaries for economic purposes—risks serious consequences. Briefly, they include, first of all, standards-lowering competition to externalize social and environmental costs with the goal of achievement of a competitive advantage. This results, in effect, in a race to the bottom so far as efficiency in cost accounting and equity in income distribution are concerned. Globalization also

risks increased tolerance of mergers and monopoly power in domestic markets in order that corporations become big enough to compete internationally. Third, globalization risks more intense national specialization according to the dictates of competitive advantage. Such specialization reduces the range of choice of ways to earn a livelihood, and increases dependence on other countries. Finally, worldwide enforcement of a muddled and self-serving doctrine of “trade-related intellectual property rights” is a direct contradiction of the Jeffersonian dictum that “knowledge is the common property of mankind.”

Each of these risks of globalization deserves closer scrutiny.

1. Standards-lowering competition. Globalization undercuts the ability of nations to internalize environmental and social costs into prices. Instead, economic integration under free market conditions promotes standards-lowering competition—a race to the bottom, in short. The country that does the poorest job of internalizing all social and environmental costs of production into its prices gets a competitive advantage in international trade. The external social and environmental costs are left to be borne by the population at large. Further, more of world production shifts to countries that do the poorest job of counting costs—a sure recipe for reducing the efficiency of global production.

We enter a world foreseen by the nineteenth-century social critic John Ruskin, who observed that “that which seems to be wealth is in verity but a gilded index of far-reaching ruin.”

As uncounted, externalized costs increase, the positive correlation between gross domestic product (GDP) growth and welfare disappears, or even becomes negative. We enter a world foreseen by the nineteenth-century social critic John Ruskin, who observed that “that which seems to be wealth is in verity but a gilded index of far-reaching ruin.”

Another dimension of the race to the bottom is that globalization fosters increasing inequality in the distribution of income in high-wage countries, such as the U.S. Historically, in the U.S. there has been an implicit social contract established to ameliorate industrial strife between labor and capital. As a consequence, the distribution of income between labor and capital has been considered more equal and just in the U.S. compared to the world as a whole. However, global integration of markets necessarily abrogates that social contract. U.S. wages would fall drastically because labor is relatively more abundant globally than nationally. Further, returns to capital in the U.S. would increase because

Civil Society, Democracy, and Civic Renewal

Robert K. Fullinwider, editor

Civic society is receiving renewed attention from academics, politicians, journalists, community leaders, and participants in the voluntary sector. *Civil Society, Democracy, and Civic Renewal* brings together several of America's leading scholars—of history, sociology, political science, and philosophy—to explore the meaning of civil society, its positive and negative effects, its relation to government, and its contribution to democracy.

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capital is relatively more scarce globally than nationally. Although one could make the theoretical argument that wages would be *bid up* in the rest of the world, the increase would be so small as to be insignificant. Making such an argument from the relative numbers would be analogous to insisting that, theoretically, when I jump off a ladder gravity not only pulls me to the earth, but also moves the earth towards me. This technical point offers cold comfort to anyone seeking a softer landing.

2. Increased tolerance of mergers and monopoly power. Fostering global competitive advantage is used as an excuse for tolerance of corporate mergers and monopoly in national markets. Chicago School economist and Nobel laureate Ronald Coase, in his classic article on the theory of the firm, suggests that corporate entities are "islands of central planning in a sea of market relationships." The islands of central planning become larger and larger relative to the remaining sea of market relationships as a result of merger. More and more resources are allocated by within-firm central

*Globalization demands that workers accept
an ever-narrowing range of ways to
earn a livelihood.*

planning, and less by between-firm market relationships. Corporations are the victor, and the market principle is the loser, as governments lose the strength to regulate corporate capital and maintain competitive markets in the public interest. Of the hundred largest economic organizations, fifty-two are corporations and forty-eight are nations. The distribution of income within these centrally-planned corporations has become much more concentrated. The ratio of the salary of the Chief Executive Officer to the average employee has passed 400 (as one would expect, since chief central planners set their own salaries).

3. Intense national specialization. Free trade and free capital mobility increase pressures for specialization in order to gain or maintain a competitive advantage. As a consequence, globalization demands that workers accept an ever-narrowing range of ways to earn a livelihood. In Uruguay, for example, everyone would have to be either a shepherd or a cowboy to conform to the dictates of competitive advantage in the global market. Everything else should be imported in exchange for beef, mutton, wool, and leather. Any Uruguayan who wants to play in a symphony orchestra or be an airline pilot should emigrate.

Of course, most people derive as much satisfaction from how they earn their income as from how they spend it. Narrowing that range of choice is a welfare loss uncounted by trade theorists. Globalization assumes either that emigration and immigration are costless, or that narrowing the range of occupational choice within a nation is costless. Both assumptions are false.

While trade theorists ignore the range of choice in *earning* one's income, they at the same time exaggerate the welfare effects of range of choice in *spending* that income. For example, the U.S. imports Danish butter cookies and Denmark imports U.S. butter cookies.

Although the gains from trading such similar commodities cannot be great, trade theorists insist that the welfare of cookie connoisseurs is increased by expanding the range of consumer choice to the limit.

Perhaps, but one wonders whether those gains might be realized more cheaply by simply trading recipes? Although one would think so, *recipes*—trade-related intellectual property rights—are the one thing that free traders really want to protect.

4. Intellectual property rights. Of all things, knowledge is that which should be most freely shared, since in sharing, knowledge is multiplied rather than divided. Yet trade theorists have rejected Thomas Jefferson's dictum that "Knowledge is the common property of mankind" and instead have accepted a

*Of all things, knowledge is that which
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muddled doctrine of "trade-related intellectual property rights." This notion of rights grants private corporations monopoly ownership of the very basis of life itself—patents to seeds (including the patent-protecting, life-denying terminator gene) and to knowledge of basic genetic structures.

The argument offered to support this grab is that, without the economic incentive of monopoly ownership, little new knowledge and innovation will be forthcoming. Yet, so far as I know, James Watson and Francis Crick, co-discoverers of the structure of DNA, do not share in the patent royalties reaped by their successors. Nor of course did Gregor Mendel get any royalties—but then he was a monk motivated by mere curiosity about how Creation works!

Once knowledge exists, its proper price is the marginal opportunity cost of sharing it, which is close to zero, since nothing is lost by sharing knowledge. Of course, one does lose the *monopoly* on that knowledge, but then economists have traditionally argued that monopoly is inefficient as well as unjust because it creates an artificial scarcity of the monopolized item.

Certainly, the cost of production of new knowledge is not zero, even though the cost of sharing it is. This allows biotech corporations to claim that they deserve a fifteen- or twenty-year monopoly for the expenses incurred in research and development. Although corporations deserve to profit from their efforts, they are not entitled to monopolize on Watson and Crick's contribution—without which they could do nothing—or

on the contributions of Gregor Mendel and all the great scientists of the past who made fundamental discoveries. As early twentieth-century economist Joseph Schumpeter emphasized, being the first with an innovation already gives one the advantage of novelty, a natural temporary monopoly, which in his view was the major source of profit in a competitive economy.

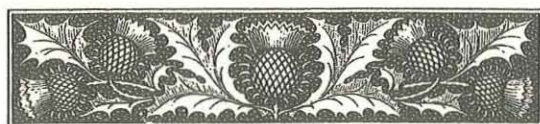
As the great Swiss economist, Jean Sismondi, argued over two centuries ago, not all new knowledge is of benefit to humankind. We need a sieve to select beneficial knowledge. Perhaps the worse selective principle is hope for private monetary gain. A much better selective motive for knowledge is a search in hopes of benefit to our fellows. This is not to say that we should abolish all intellectual property rights—that would create more problems than it would solve. But we should certainly begin restricting the domain and length of patent monopolies rather than increasing them so rapidly and recklessly. We should also become much more willing to share knowledge. Shared knowledge increases the productivity of all labor, capital, and resources. Further, international development aid should consist far more of freely-shared knowledge, and far less of foreign investment and interest-bearing loans.

Let me close with my favorite quote from John Maynard Keynes, one of the founders of the recently subverted Bretton Woods Institutions:

I sympathize therefore, with those who would minimize, rather than those who would maximize, economic entanglement between nations. Ideas, knowledge, art, hospitality, travel—these are the things which should of their nature be international. But let goods be homespun whenever it is reasonably and conveniently possible; and, above all, let finance be primarily national.

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This article arose from a discussion given at the Aspen Institute's 50th Anniversary Conference, "Globalization and the Human Condition," held in Aspen, Colorado on August 20, 2000.



Suffer the Children

Amitai Etzioni

Several leading civil libertarian groups and advocates (and libertarians) argue that minors of all ages are entitled to First Amendment rights. (To save breath, they are all referred to from here on as civil libertarians.) Reference is mainly not to "production" of speech but to "consumption," the unfettered access to cultural material. Basically, these civil libertarians maintain that children should be treated the same as adults in this matter. After laying out the arguments advanced by civil libertarians in favor of this surprising position, I question the underlying reasons for these groups to embrace this position. I conclude by suggesting that civil libertarians can defend their liberty without hurting children.

Children's First Amendment Rights

Four Policies. Four recently contested issues show the way civil libertarians view minors' First Amendment rights. All concern the protection of children from sexually explicit material and gratuitous violence in the media, from health hazards (specifically, luring cigarette ads), and from commercial exploitation.

One policy concerns the introduction of filters into computers used to access the Internet. Such software

*[Civil libertarians] have demanded . . .
unencumbered access for children of all ages to
all cultural materials.*

blocks access either to a given list of Web sites or to messages that contain certain key words (e.g., bestiality). Brand names include X-Stop, Cyber Patrol, and Net Nanny. These filters are reported to be quite effective, although occasionally materials they seek to block out slip through, and sometimes material that arguably should be allowed through (e.g., the Starr report?) is screened out.

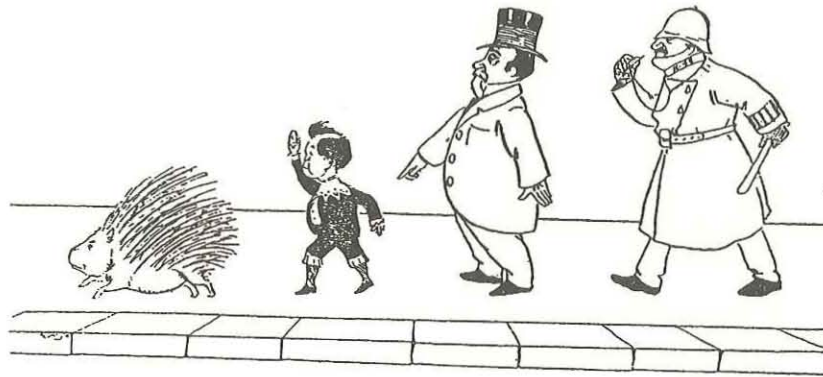
The second policy at issue involves public efforts to persuade tobacco companies to stop placing the so-

called "Joe Camel" type of ads. These ads reportedly target children and are believed to be particularly effective in enticing them to smoke.

A third policy concerns self-imposed limitations that several major corporations and industrial associations have adopted, which limit the information they collect about children who access their Web sites or send them e-mail. These limitations apply especially to "cookies," devices installed by corporations in a person's computer, often unbeknownst to that person. Cookies allow marketers to recognize an individual's computer when its operator approaches the Web sites again, and to tailor advertising to that user. In addition, information about users is often sold to other corporations. Responding to complaints that such profiling of clients violates their privacy, corporations such as Disney and Kellogg and associations such as the Direct Marketing Association and the Online Privacy Alliance announced that they would refrain from collecting information about children twelve years or younger unless the youths' parents consented.

The fourth measure entails the introduction of V-chips in television sets, which enable parents to block their TV sets from screening programs that have more violent or vile content than they deem appropriate for their children to view. Federal law requires that V-chips be installed in all TV sets made after 1993. For the V-chip to differentiate between programs according to their violence rating or some other content attribute (e.g., offensive sexual material), the broadcasted programs must include ratings. For this to occur there must be an agreed-upon set of ratings, and a method for programs to include these ratings in a manner that the V-chip can recognize. Most networks have reluctantly agreed to introduce a rating system.

Civil Libertarian Objections. Civil libertarians argue that these policies limit the free flow of information and ideas and hence offend the First Amendment. The main parties challenging these policies are the American Civil Liberties Union (ACLU), the American Library Association (ALA), libertarians (specifically the Cato Institute), and the National



From More Beasts for Worse Children, by Hilaire Belloc (Duckworth and Company, 1898).

Campaign for Freedom of Expression (NCFE). It is crucial for all that follows to note that these associations have demanded—and in some cases succeeded—that various protective devices be removed not simply for minors approaching maturity, but demand unencumbered access for children of all ages to all cultural materials. Indeed, public debates about the policies at issue center around the question of whether protecting children who are *twelve years old or younger* comports with the Constitution. (Both protection that may be provided by the state and allowing or enabling parents to act are at issue.)

A colleague who read a previous draft of this article, wondered why the line was drawn at the age of twelve, and pointed out that older children require protection as well. This particular age is discussed not merely because it is at the focus of public attention (such as it is) on this matter, but also because children age twelve and younger serve as a sort of litmus test. If one cannot convince civil libertarians, judges, and policy makers about the need to protect infants, toddlers, and first graders—one can hardly expect these adults to shield adolescents.

Civil libertarians seem to realize the difficulty of convincing the public of the legitimacy of their position, hence, they often make their case indirectly. For instance, in objecting to limiting Joe Camel ads, the ACLU argues that it is unreasonable to suppress ads

that target children because doing so also limits the information flow to adults. As the ACLU states, "Adults cannot be reduced to reading only what is fit for children." And, "attempts to reduce the exposure of minors to tobacco advertisements cannot avoid restricting the same information for the adult population." Thus, occasionally the ACLU avoids directly claiming that it favors exposing children to tobacco ads, but achieves the same goal by insisting that such curbs intrude on the First Amendment rights of adults.

Other times the ACLU simply states that *everyone* should have access to material considered damaging to children, but does not explicitly mention that children are to be included. Thus, the ACLU declares that "We believe that the enactment of the proposed tobacco advertising restrictions would impose a drastic curtailment of commercial speech and could have a chilling effect on the right of the public and businesses to engage in free speech about controversial subjects." Similarly, Steve Dasbach, the party chairman of the Libertarian Party, holds that "if Congress ratifies this agreement, Americans will suffer from the second-hand smoke of the Bill of Rights being torched. . . . In their frenzy to control tobacco, politicians want the power to drastically restrict the First Amendment."

In other situations, civil libertarians state their position quite explicitly. Thus, when a public library in Kern County, California allowed children free access to

The Monochrome Society
Amitai Etzioni

Amitai Etzioni is one of the most influential social and political thinkers of our day, a man synonymous with the ideas of communitarianism. In this book, Etzioni challenges those who argue that diversity or multiculturalism is about to become the governing American creed. On the surface, America may seem like a fractured mosaic, but the country is in reality far more socially monochromatic and united than most observers have claimed. In the first chapter, Etzioni presents a great deal of evidence that Americans, whites and African Americans, Hispanics and Asian Americans, new immigrants and descendants of the Pilgrims, continue to share the same core of basic American values and aspirations. He goes on to show that we need not merely a civil but also a good society, one that nurtures virtues. He assesses key social institutions that can serve such a society ranging from revived holidays to greater reliance on public shaming. He also challenges moral relativists who argue that we have no right to "impose" our moral values on other societies. Etzioni explores and assesses possible new sources and definitions of community, including computer-mediated communities and stakeholding in corporations.

"These wide-ranging essays are full of fresh insights and challenging ideas. Etzioni takes us on a voyage of discovery, in an open-minded spirit of study and exploration. He suggests ways of thinking about specific policy areas, including crime, child protection, and the Internet, as well as basic issues in moral and social theory, such as making cross-cultural moral judgments. Anyone interested in communitarian thinking will find much refreshment in this book."

—Philip Selznick, University of California, Berkeley

"These essays apply sound sociological reasoning to such themes as diversity, human rights, and the maintenance of social norms. They are very well written, avoiding both excessive academicism and a popularizing tone that seems to talk down to the reader. Thus, these essays are both highly readable and informative."

—Dennis Wrong, author of *The Problem of Order* and *The Modern Condition*

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unfiltered computers after being threatened by an ACLU lawsuit, Ann Beeson, an ACLU National Staff Attorney, wrote, "We applaud the Board of Supervisor's decision to honor the First Amendment rights of Kern County citizens by . . . allow[ing] all adult *and* minor patrons to decide for themselves whether to access the Internet with or without a filter." Note that the term "minor" references children of all ages, and Beeson does not suggest protecting any of them or that there is any age at which they are unable to "decide for themselves." This is not a slip of a pen but a position consistently adopted. The same position was struck by the ACLU when it charged the Loudoun County Library Board of Trustees in Virginia, that has introduced filters, of "'removing books from the shelves' of the Internet with value to both adults *and* minors in violation of the Constitution."

The American Library Association (ALA) makes the same case but more explicitly. Its basic charter argues, with reference to Internet access, that "the rights of users who are minors shall in no way be abridged." This position is based on the Library Bill of Rights, which holds that "A person's right to use a library should not be denied or abridged because of origin, age, background, or views." In the original 1948 version the document referred only to "origin, background, or views," as grounds which could not be used to deny service. Age (any and all ages) was added in 1996.

Some tobacco industry advertisements have targeted young people, according to internal documents introduced in various trials. In addition, some statistics indicate a strong correlation between certain tobacco advertisements and increasing numbers of teenage smokers. For example, "The largest increase in adolescent smoking initiation was in 1988, the year that the Joe Camel cartoon character was introduced nationally." In response to government efforts restricting tobacco advertising, the ACLU has stated that "we [should] allow consumers to make decisions for themselves and stop government from deciding for us what speech we should be free to hear about legal products."

The ACLU opposes the V-chip on the grounds that children's access to television should not be curbed, because devices such as the V-chip screen out ideas, and because there is no evidence "that explicit sex information and even pornography . . . by themselves cause psychological harm to *minors of any age*."

In 1998, a group of representatives of privacy advocacy organizations met at the Electronic Privacy Information Center (EPIC) to prepare for a White House conference on ways to deal with privacy violations. A representative from the Center for Media Education as well as one from the Communitarian Network favored the self-imposed, voluntary policies of corporations not to collect information from chil-

dren age twelve or younger who visit their Web sites, or to send them e-mail without their parents' consent. The ACLU's representative objected on the grounds that a young child may seek information about ways to deal with HIV or pregnancy and fear disclosing such a quest to his or her parents. EPIC's representative concurred.

Similarly, the Cato Institute's reasoning is that "[I]t makes little sense to morally condemn those who sell to children when we ourselves give children the means to buy. So regulation of marketing . . . that contain[s] information about children is *no more justified than regulation [that] contain[s] information about adults.*" The

The treatment of children as mini-adults runs contrary to almost the total body of social science evidence, enormous bodies of law, and values embodied in the major institutions of democratic societies. . . .

Cato Institute also points out that "the vulnerability of children is not a unique justification for restrictions on marketing, since myriad other speech activities may influence children." And the Cato Institute wonders, "Do children face any real harm from marketing? The main risk seems to be that children might end up with a little more useless junk than they would otherwise."

Are Children "Mini-Adults" or a Distinct Subcategory?

In evaluating the civil libertarian position one must consider whether children constitute a distinct category of persons. Obviously, suggestions that special measures should be introduced to protect children but not adults can be justified only if children are substantially different from adults in ways that are relevant to the exposure of minors to all elements of our culture. The answer to this question is not as self-evident as it might seem; the ways minors have been characterized and categorized have changed significantly over the ages and vary from one culture to another.

In the Middle Ages, children often were treated as mini-adults, that is, were not considered a distinct category of people. For instance, when children misbehaved, they were considered to have acted out of ill will rather than from having not yet acquired societal mores. Punishment meted out did not differentiate between minors and majors. In contrast, in the modern era, especially in democratic societies, children often have been considered a distinct kind of people, especially vulnerable, incompetent, dependent, and in need of protection. Moreover, in these kinds of societies children are usually treated as members of a specific soci-

etal unit, the family, and parents have been charged with attending to their children and consequently accorded many rights of control over their offspring.

In recent decades, we have witnessed a retreat from regarding children as dependents and as family members. In an extension of various liberation movements, and the very legitimate rising concern for the human rights of minorities, women, gay and lesbian people, senior citizens, and disabled persons, we have also witnessed a new concern for the rights of children to make autonomous decisions—like adults. This tendency has been further fueled by those who view the family as being phased out, hence requiring a new positioning of children. While typically these observations have not led to arguments that there are no remaining differences between children and adults, when it comes to First Amendment issues, arguments move the social construction of children by civil libertarians as well as some liberals towards treating them as mini-adults rather than as substantially different. This is in sharp contrast to the position taken by the same group in opposition to treating children as adults in the court of law and in placing juveniles in adult correctional facilities and jails.

The treatment of children as mini-adults runs contrary to almost the total body of social science evidence, enormous bodies of law, and values embodied in the major institutions of democratic societies, all of which view children as *developmental creatures*. That is, children begin life as highly vulnerable and dependent persons, unable to make reasonable choices on their own, and gradually grow to become (as society hopes, and parents and educators labor to achieve) people able to make moral judgments, competent to act on their own, and ready to be autonomous persons.

Stanford Law Professor Michael Wald makes this point as follows: "Younger children, generally those under 10-12 years old, do lack the cognitive abilities and judgmental skills necessary to make decisions about major events which could severely affect their lives. . . . Younger children are not able to think abstractly, have a limited future time sense, and are limited in their ability to generalize and predict from experience." Yale Professor Joseph Goldstein adds, "To be a *child* is to be at risk, dependent, and without capacity to decide what is 'best' for oneself. . . . To be an *adult who is a parent* is to be presumed in law to have the capacity, authority, and responsibility to determine and to do what is good for one's children."

John O'Neill puts it succinctly, when he writes, "Currently, there are attempts to define children's rights on the liberal model of individual rights exercised by potentially autonomous agents—despite the reality of children's dependency."

Society's expectations from children, and the rights society accords them, reflect this developmental per-

spective. Society first requires children to be cared for by their parents and to heed them, as well as to attend school, while society allows children to leave both as they grow older. And society allows young people to consume alcohol, drive, marry, vote, serve in the armed forces, and sign contracts at different ages, but only rarely when they are very young. There seems to be no foundation in social science to assume that when it comes to exposure to information, children are initially less in need of adult protection and guidance than in other aspects of their lives.

One may ask, as children grow to be independent individuals, won't each undergo a vulnerable trial period during which they will first be exposed to potentially harmful media images (e.g. cigarette ads, pornography, violence)? Might it not be more important for them to be exposed to this material at a younger age, when parents can more effectively provide a moral context for the incoming information? If the ultimate goal of a child's education is to have him/her making moral choices for him/herself, then shouldn't the child be confronted with both positive and negative images early on and guided to the correct choice, rather than initially robbed of the option to choose and have the "better" choice made for them?

Gradually exposing children to the violent and vile side of the adult world is indeed called for, but only commensurate with their ability to deal with the material. There is no reason to rush to expose pre-teens to sexually alluring material in order to teach them to deal with it. Moreover, for parents and educators to be able to help shape the children's responses they must be aware of the specific inputs the children face and be able to arrange them in line with some kind of an educational agenda rather than allow them to be engulfed by violent video games and trash TV, and lost in the World Wide Web. Above all, for parents and educators to participate in developing judgment they must be given the tools that enables them to actively participate in the cultural choices their charges make and the ways they initially deal with them.

Notching the Slope

Why do leading civil libertarians ignore the significant differences between children and adults? One reason might be the tendency of strong advocates to push their thesis to its illogical conclusion. (Just as civil libertarians tend to treat children like adults, hard core social conservatives often treat adults like children, for instance, by seeking to ban access to pornography to people of all ages.) In addition, civil libertarians fear the metaphorical slippery slope. For instance, the ACLU warns that "if this legislation [regarding tobacco ads] prevails, Congress could clearly impose similar restrictions on any commercial product." If

children are denied full court First Amendment rights in order to improve their characters, could one not favor the same for adults?

This particular slippery slope, though, is clearly different from others in that clear markers can be set to prevent slippage. Unlike the difficulty in defining differences between fighting words (which, due to their dangerous effect, may be banned) and others, differences in age are rather easy to determine. Hence, public policies that prevent children from accessing certain materials, and above all policies enabling parents and educators to protect their wards, will not spill over to adults unless a more encompassing policy is deliberately embraced. Indeed, society expects parents and educators to actively participate in selecting the material to which their children are exposed. Civil libertarians should not hinder the development of the needed policies and tools merely for the sake of a paradigm that does not apply to children in the first place.

The attempt to extend First Amendment rights to protect children against their parents (rather than the government) is particularly puzzling and troubling. Such an extension is so farfetched that one may wonder whether it might be inadvertent. One may oppose

Our respect for people's choices rests on the assumption that their basic ability to render judgments has been formed and is intact.

a voluntary ban on Joe Camel ads because it was offered under pressure from Congress. Likewise, objection to the introduction of filters into public library computers may be justified. However, while the V-chip has been incorporated into TV sets by force of law, it is not activated unless parents so wish. And the refusal of libraries to inform parents of their children's choices in books has nothing to do with protecting them from Big Brother.

The notion that children should be treated as basically small adults is difficult to comprehend. The great classical liberal philosophers, who laid the foundations for our conception of individual rights, directly addressed this matter. John Stuart Mill, for instance, stated: "Children below a certain age cannot judge or act for themselves; up to a considerably greater age they are inevitably more or less disqualified for doing so."

Our respect for people's choices rests on the assumption that their basic ability to render judgments has been formed and is intact. (This is the reason we, for instance, limit the choices of those whose mental capacity is significantly impaired.) Minors gradually develop the capacity to make choices, but are not born with it. For this reason when their age is tender, we are

not charged with violating their right to free assembly when we prevent them from running into the street, or their privacy rights when we examine their homework, even without prior consent.

As I see it parents not only have a right but a duty to help shape the educational environment of their children, help them choose which books they should read, which music to listen to, which TV programs to watch—and which to avoid. Of course, as children grow older such guidance is less necessary, but the debate swirls largely around those who are twelve or younger, who badly need their parents' counsel. This may include limiting the kind of pornography they are exposed to, the games they may play, or even how many hours a day they may surf on the Internet—or watch TV—in the first place.

Even for teenagers, parents need to be involved rather than shut out. Thus, given the high suicide rate among teens, and the tendency for such acts to be emulated, if a child committed suicide in my son's school, and my son seems rather depressed and he is spending long hours alone in the library, it is my duty to know if he merely reads Dostoevsky or also the books of the Hemlock Society, which informs its readers how to best end their lives, with minimal discomfort. I also had

better find out if one of my children is deep into *Mein Kampf*, the Unabomber Manifesto, or *The Anarchist's Cookbook*, so I can help him learn to properly deal with these poisonous books.

In effect, attending to the character development of children, so when they grow up they will be equipped with the moral and intellectual faculties needed to make responsible choices, is to a large extent what parenting is all about. Anybody can provide room and board. Love comes naturally. But providing education—laying the foundations for adult choices—is the highest duty of parenting, which no civil libertarian should deny.

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