

Book Review

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Legally Poisoned: How the Law Puts Us at Risk From Toxicants. By Carl F. Cranor. Harvard University Press, Cambridge, Massachusetts, 2011, 315 pp. \$35.00.

Little is known about most of the chemicals to which the public is exposed. The Environmental Protection Agency (EPA) has health effects information for only about 2% of the 62,000 substances sold prior to 1979 and for only about 15% of the 50,000 substances sold since then (p. 6). Carl Cranor's important new book attributes this massive ignorance to the existing legal regime. Most of these chemicals (80–90%) are subject to regulation under postmarket laws that do not require the testing of substances before they enter commerce (p. 132). Prescription drugs and pesticides are the only major categories of chemicals that are subject to premarket laws—laws that require the manufacturer to investigate the safety of the product (and in the case of drugs, also the efficacy) before they are marketed.

But, Cranor argues, postmarket regulation is inherently problematic. Under the postmarket laws, regulators have struggled to protect the public:

[A] public health agency must carry a considerable legal and scientific burden of proof to secure better health protections once products are suspected of being toxic. The science must be found or generated and must be legally sufficient to support better health protections. Public health officials must have the political will, sufficient staff, and adequate resources to act on the science (p. 7).

“All of these things,” Cranor concludes, “can be in short supply (p. 7).”

Books assessing this problem usually analyze it in terms of economic principles. A market is less efficient when companies are not responsible for paying for the full costs of the harm that their products cause the public. Cranor, a

distinguished philosopher at the University of California Riverside, suggests this economic problem also reflects “moral shortcomings” (p. 9), a claim that he supports with by discussing ethical requirements of human subjects research (pp. 8, 180–182) and theories of justice (pp. 9, 220–222).

As readers know, no human experimentation can take place unless preparatory research has ensured that the risks are reasonable, that there has been informed consent, and that researchers are subject to external oversight. Moreover, research on children is forbidden unless the data are essential to their well being and there is no other way to obtain it. This respect for human autonomy is also reflected in tort law, which forbids medical professionals from treating individuals without their consent (pp. 182–83). “In sharp contrast,” Cranor observes, “exposure to the vast majority of chemicals have none of these protections,” making “[p]eople, and worse their children, experimental subjects for industrial chemicals” (p. 8).

Cranor's portrayal of the unimpeded use of untested chemicals as human experimentation, as reprehensible as it sounds, may, in fact, understate the problem. Experiments imply observation and resultant gains in knowledge. Most population exposure to untested chemicals and consequent diseases, however, are unobserved and unmeasured by scientists with the exception of the occasional public health study.

The existing approach to chemical regulation is also objectionable under John Rawls theory of justice [1971]. Rawls and others assert a fair society is one in which individuals with roughly equal abilities and motivations have approximately equal opportunities to obtain the same social goals. A society is unjust when it denies such fair opportunities by alterable conditions. Norman Daniels extends this idea of justice to health care, noting that illness and dysfunction constitute arbitrary barriers to opportunity that can be addressed by ensuring adequate access to health care [1985]. Picking up on these insights, Cranor finds that individuals who are harmed by unregulated chemicals are denied a fair opportunity, and “[t]hese injustices are quite preventable with different legal structures” (p. 222).

Cranor builds his case for adoption of premarket laws by establishing that there is nowhere for people to hide. Chemicals are everywhere, not only in workplaces, but also in the atmosphere, water, the food supply, and consumer

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products, to the point where no one can avoid absorbing them. The Center for Disease Control and Prevention has reliably identified 212 contaminants in our bodies, which are known or suspected to be toxic hazards (p. 3). Cranor explains the nature of these hazards, and why we have good reasons to be wary of them (Chapter 2), adding evidence that even fetuses are unprotected (Chapter 4).

He also demonstrates why the operation of science hinders a postmarket approach to controlling toxics (Chapter 5). Developing reliable knowledge of the toxic properties of a chemical is a time-consuming and difficult process. In the meantime, the public is exposed to the risks of toxic chemicals, which would not happen under a premarket approach. When the scientific community does produce evidence of toxicity, the findings are attacked by industry, which has a strong financial interest in delegitimizing any science that can be used by agencies or the courts to protect the public (pp. 161–166). The pervasive and perverse nature of industry attacks on regulatory science have been illuminated in recent books by Tom McGarity and Wendy Wager [2008], law professors at the University of Texas, and David Michaels [2008], an epidemiologist at George Washington University, who is currently serving as the administrator of the Occupational Safety and Health Agency.

Finally, Cranor demonstrates how the postmarket laws have failed us by discussing how regulatory agencies have struggled to address even obvious hazards (Chapter 5). This analysis fully supports his conclusion that “[l]egislation based on postmarket regulation of risk is broken or nearly broken” (p. 137). Consider, for example, the Occupational Safety and Health Agency (OSHA). In 1986, the National Institute of Occupational Safety and Health recommended that OSHA establish health standards for 71 carcinogenic chemicals, but OSHA has promulgated health standards for only 22 of these substances (p. 142). While Cranor is not the first analyst to examine this colossal failure, this chapter offers a succinct and accurate review of what has gone so wrong.

Cranor ends by proposing that “companies that create, manufacture, import, and distribute industrial chemicals that invariably invade humans should be legally required to . . . fund or conduct appropriate tests specified by public health agencies (in consultation with independent scientists) in order to identify risks to developing children and people in other sensitive stages before exposures occur” (p. 193). Such testing should “ensure that there is a reasonable certainty of no harm to people as a result of contact with the substances in question” (p. 193).

While this would be a radical shift in American law, the European Community (EU) has adopted a similar requirement known as REACH (Registration, Evaluation, Authorisation, and Restriction of Chemicals). It is estimated that the testing required by REACH could cost as much as \$4.5–5.0 billion dollars, but Cranor contends this is money well spent. For one thing, “the monetary costs of better testing appear to be much lower than the cost of disease, and perhaps considerably lower than some people might worry” (p. 10). For another, “[w]hen balanced against monetary and hidden costs of the status quo, increased testing seems quite reasonable, as well as being required by safety and justice” (p. 10).

Cranor illustrates the affordability of REACH by noting that it will cost about one euro for each of the 450 million citizens living in the EU per year. A family of four will pay 44 Euros over an 11-year period (p. 243). Cranor observes: “Would a European Union family of four pay 44 Euros over an eleven year period in order to test for any chemical risks in their lives, to know what these risks were, and to have some assurance that the European Union would not permit such products into the markets if need be? This hardly seems to be an unreasonable approach” (p. 243).

Legally Poisoned makes it ever so clear that Americans are at risk of being poisoned and the reason is the postmarket design of the laws that are supposed to protect us from harmful chemicals. The situation is unnecessary, morally repugnant, and economically inefficient. Hopefully this book will help to focus attention why the United States should follow the EU’s lead in requiring premarket testing of chemicals.

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