

Angela N. H. Creager and Jean-Paul Gaudillière: Risk on the table: food production, health, and the environment

Berghahn Books, New York, NY, USA, 2021, 354pp, ISBN 9781789209440¹

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Food safety is an age-old but quotidian societal issue that has remained a concern throughout human history. The matter is gaining more significance in today's globalized era, where minor food issues can now have extensive repercussions, impacting lives and economies worldwide in a very short time. In *Risk on the Table: Food Production, Health, and the Environment*, Angela Creager, Professor in History of Science at Princeton University, and Jean-Paul Gaudillière, Historian at Cermes3 and Professor at École des Hautes Études en Sciences Sociales, Paris, have assembled a compelling anthology that explores how scientific developments, industrial practices, and regulatory frameworks have shaped and responded to the risks associated with food production and consumption in modern society.

The book is organized into two sections: "Objectifying Dangers" and "Ordering Risks." The first section, comprising six chapters, explores how scientific advances and food industrialization have led to new expertise and perspectives in identifying and assessing food-related risks, from pathogenic bacteria to radioactivity and carcinogens. In chapter one, Anne Hardy traces the evolution of scientific understanding and public awareness of food poisoning due to pathogenic bacteria. She uses the health hazards associated with leafy greens to illustrate

¹ This version of the article has been accepted for publication, after peer review (when applicable) but is not the Version of Record and does not reflect post-acceptance improvements, or any corrections. The Version of Record is available online at: <https://doi.org/10.1007/s10460-024-10553-8>. Use of this Accepted Version is subject to the publisher's Accepted Manuscript terms of use <https://www.springernature.com/gp/open-research/policies/accepted-manuscript-terms>".

the complexity of food quality and safety, the challenges of large-scale industrial practices, and the globalization of food systems. Despite the notable evolution in national monitoring systems, Hardy concludes that contamination remains possible even with robust surveillance, leaving consumers to rely on scientific prescriptions to “keep washing everything and trust their luck” (p.46).

In chapter two, Soraya de Chadarevian reviews considerations for radioactive contamination of food, highlighting how the development of atomic weapons has added complexity to the quality and safety of the human food chain, with the potential for global contamination. Chapter three by Heiko Stoff discusses the political dimensions of food safety regulations in post-war West Germany, illustrating how regulating carcinogens in food became a subject of political negotiation and compromise. The author reveals the tensions in establishing safety standards and acceptable levels of carcinogenic substances in food.

In the United States (U.S.), as Angela Creager notes in chapter four, the development of new methods to detect potential carcinogenic substances shifted the focus from added chemicals to the inherent risks in natural food substances and cooking methods. Taking a broader perspective, Lucas Mueller critically analyzes the link between food risk issues, particularly mold-produced aflatoxin, and postcolonial struggles in chapter five. He highlights how North-South relations and international politics shaped the risk assessments of aflatoxin, emphasizing the need to consider economic and social inequalities in developing effective strategies to address global health risks. Chapter six, authored by Aurélien Féron, explores the history of polychlorinated biphenyls (PCBs) and uses the term “political recalcitrance” (p.164) to characterize the persistent difficulties in addressing and mitigating the risks associated with PCB pollution, including the contamination of living organisms such as fish, sheep, and vegetables.

Despite the development of various regulatory modes, the problems posed by PCBs remain unresolved, leading to strategies that focus on living with contamination rather than eliminating it.

Focusing primarily on the U.S., the book's second section emphasizes how industries, governments, and consumers have understood and managed chemical risks in agriculture and food processing. Hannah Landecker addresses, in chapter seven, the historical use of arsenic-based drugs in meat production in the U.S. since the 1940s. These chemicals were broadly accepted in animal feeds for more than seventy years to increase productivity despite the potential health consequences for humans and animals. Chapter eight by Claas Kirchhelle examines the ongoing struggle to mitigate the risks of antibiotics in food production following eight decades of their use. The author highlights the tension between economic interests and public health, the difficulties in establishing clear regulatory standards, and the persistent challenge of aligning scientific evidence with effective policymaking.

Chapters nine, ten, and eleven continue to examine conflicts in U.S. food safety regulations. In chapter nine, Jean-Paul Gaudillière examines the issue of industrial influence on expertise and risk analysis through the case of diethylstilbestrol, a carcinogenic substance used to promote growth and increase productivity in livestock. The author elaborates on three commonly employed analytical categories – conflict of interest, ignorance, and capture – to examine influence and propose hegemony as an additional perspective. In chapter ten, Maffini and Vogel critically examine the outdated U.S. regulatory framework for food additives, emphasizing its inadequacies in the face of emerging food technologies and increasing chronic health issues. They observe that under the current framework established by the 1958 Food Additives Amendment to the Food, Drug, and Cosmetics Act of 1938, it is improbable for the U.S. Food

and Drug Administration (FDA) to identify any health issues resulting from the utilization of food additives unless the food industry itself notifies the agency. The authors propose an alternative risk assessment approach, focusing on the cumulative effects of food chemicals. In the book's last chapter, Xaq Frohlich explores the distinction between food and drugs within U.S. regulatory practices. The author explores the recent conceptualization of the food-drug line and details how the FDA managed this division by focusing primarily on the safety of food and both the safety and efficacy of drugs. The narrative highlights this separation's challenges and practical breakdowns, as chemical technology is central to the food and drug industries.

The book stands out for its multidisciplinary approach, integrating history, science, and policy analysis to explore the historical context and ongoing debates and challenges in food safety, including conflicting interests shaping policies and practices. The volume is particularly relevant in an era where food safety and environmental health are increasingly intertwined with global trade and industrial practices. However, the dense academic style may limit the book's accessibility to a broader audience. Additionally, one might argue that the book could have benefitted from more perspectives from the global south, as food safety concerns are a global issue with diverse and specific implications across different regions at different times. Moreover, many chemical products developed in industrialized societies, although later banned for safety reasons, remain in use in many developing countries.