

## Being Nuclear: Africans and the Global Uranium

Trade. By Gabrielle Hecht. Cambridge, MA: MIT Press, 2012. 440p.

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— Matthew Fuhrmann, *Texas A&M University*

What does it mean to be a nuclear state? What makes things nuclear? Gabrielle Hecht addresses these questions in an ambitious and well-researched book. She introduces a term—“nuclearity”—to describe the process by which places and objects are classified as nuclear (pp. 3–4). To understand how nuclearity develops and why it matters, Hecht focuses on one particular dimension of the global nuclear order: namely, uranium in Africa.

Is uranium an exceptional “nuclear” commodity or is it an ordinary mineral? It is seemingly hard to argue that uranium is banal, given that it can be used to make nuclear weapons (or to produce fuel for nuclear power plants). Yet African producers sometimes act as though there is nothing special about uranium. On top of this, other countries—including the United States—assume that Gabon and Niger do not have any “nuclear activities” (p. 13). To be sure, these countries do not operate nuclear power plants, but they are uranium exporters. Why does that not make them “nuclear”?

This discussion leads to the first of two main arguments advanced in *Being Nuclear*: Nuclearity is “a contested technopolitical category” (p. 14). Bombs and radiation have obvious physical properties—nuclear weapons can destroy civilization because they are so destructive, for instance—but these characteristics do not determine nuclearity on their own. Uranium, Hecht argues, is not automatically classified as a nuclear material with special significance. Rather, uranium emerges as “exceptional” only if states, firms, nongovernmental organizations, scientists, and other relevant actors work to designate it as such. In her words, nuclearity “emerges from political and cultural configurations of technical and scientific things, from the social relations where knowledge is produced” (p. 15). Thus, nuclearity can vary both between countries and across time.

Hecht’s second argument deals with the *effects* of nuclearity. She aims “to show the consequences of rendering [nuclear] things exceptional or dismissing them as banal” (p. 15). How states and other actors designate uranium, she posits, is not a trivial thing; it matters in the real world.

To develop and illustrate these arguments, the author focuses on two main aspects of the African uranium trade. Part I of the book addresses the political economy of uranium. It emphasizes, in particular, the emergence of the uranium market. She argues that various actors—including brokerage firms, economists, and international institutions—sought to reinvent uranium as an ordinary commodity in order to facilitate its exchange in open

markets. These actors created “market devices” to make uranium seem like just another commodity, such as copper or gold.

At the same time, however, others worked to promote a different narrative. Leaders in African states sometimes had incentives to make uranium seem exceptional in order to maximize its value. For example, Hamani Diori, the president of Niger from 1960 to 1974, played up the uniqueness of uranium in an attempt to increase its price (p. 125).

Part II focuses on the public health effects of Africa’s uranium mines. Workers in these mines faced the risk of radiation exposure—but this danger was not always made clear. Why? How were the dangers of radiation exposure reported, and to whom? Did workers in uranium mines understand the risks that they faced?

Attaching nuclear status to uranium mines, according to Hecht, requires work. “The nuclearity of uranium *ore*,” she argues “didn’t automatically make uranium *mining* a nuclear activity” (p. 220). Firms tried to ignore or downplay the nuclearity of uranium mines in order to avoid additional regulatory burdens that could threaten their bottom lines. Locals often lacked the scientific knowledge necessary to challenge prevailing industry views, and, in any case, it is difficult to establish a causal connection between radon exposure (uranium atoms decay into radon) and cancer. As a result, as indicated by the title of Chapter 6, many uranium miners in Africa have “a history of invisibility.”

Yet workers were not always fully invisible. Hecht documents variation among African countries in the degree to which workers understood (and were protected from) the radiation risks of uranium mining. In Madagascar, workers lacked access to the scientific data necessary to understand the risks they faced. Their work, then, failed to achieve nuclearity. Many South African mine workers did not even realize that they were working with uranium (because uranium can be coproduced with gold). On the other hand, in Gabon, there were denser knowledge networks that enabled workers to understand radiation hazards and eventually seek compensation from companies they perceived as negligent.

There is much to like about this book, and scholars from many disciplines can learn a great deal from *Being Nuclear*. The historical narratives, which are based on fieldwork in several African countries, are impressive and informative. Very few scholars before Hecht have devoted such thorough attention to the nuclear histories of African countries—especially relative to the extensive treatment afforded to other states’ nuclear programs.

One particularly salient take-home point comes from the book’s last sentence: “The power of nuclear things has a price” (p. 339). Hecht convincingly shows that nuclear programs have important, albeit underappreciated, human costs—particularly for workers in uranium mines. In doing

so, she forces scholars to rethink how they evaluate the price tags on nuclear programs.

Yet the book also has some limitations. Hecht shows that nuclearity varies across space and time, but she does not persuasively explain this variation. Why is uranium a “nuclear commodity” in some African countries but not in others? She argues at various points that the answer has to do with history, geography, knowledge production, post-colonial politics, and transnational activism, among other things (e.g., pp. 14, 249). These factors seem to matter in the cases discussed, but the author does not develop a theory at the outset to tell readers precisely *how* and *why* they affect the nuclearity of uranium. Doing so would have strengthened her argument but, to be fair, this may not have been one of her principal objectives.

Hecht is a historian, and her primary audience, presumably, is other historians. Political scientists may find certain aspects of the book disappointing. Her arguments clearly have a constructivist flavor. Yet she does not discuss the rich theoretical literature from the constructivist tradition in political science. It seems particularly odd, from the perspective of a political scientist, that Hecht did not engage ideas advanced by Richard Price and Nina Tannenwald. These scholars have argued that the value of chemical and nuclear weapons comes partially from their social properties—not just their physical ones. Hecht usefully extends this argument in the context of uranium, but she does not explicitly link her ideas to existing international relations theories. This is a missed opportunity, but perhaps future research—from Hecht or other scholars—can take up this task.

Overall, despite its limitations, *Being Nuclear* is an interesting book. Given its scope and aims, it will naturally have a bigger impact in history than in political science. Yet political scientists interested in the political economy of the nuclear marketplace and the nuclear history of Africa have much to gain from reading it.

#### **Social Trust, Anarchy, and International Conflict.**

By Michael P. Jasinski. New York: Palgrave Macmillan, 2011. 200p. \$90.00.

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— Felix Berenskoetter, *School of Oriental and African Studies, University of London*

International relations scholars tend to agree that trust and the absence thereof play a key role in explaining cooperation and conflict. Yet what exactly trust is, where it comes from, and how it works are far from clear, and so exploring these questions remains an important task. Michael Jasinski's book takes on this task and, in doing so, fits with a renewed interest in phenomena of trust among IR scholars, from Andrew Kydd (*Trust and Mistrust in International Relations*, 2005) to Brian Rathbun (*Trust in International Cooperation*, 2012).

The basic argument advanced in this book is seemingly straightforward: The kind of social trust existing in a society significantly affects how conflict prone that state is. There are two sides to this argument. The first, emphasized in the title, suggests that societies in a condition of “domestic anarchy” are more likely to become engaged in international conflict. The flip side argument is that states whose societies display “generalized” social trust domestically are benign in their dealings with external actors. Jasinski pursues these arguments to supplement the democratic peace and diversionary war theories by “eliminating their shortcomings.” Yet he also admits to the even more ambitious aim of “creating an overarching theory of international conflict” (p. 5) and cooperation, with domestic social trust as a master variable. To a point, the book does that, but not very persuasively.

The book is knowledgeable, well written and clearly structured. It offers an extensive theoretical discussion engaging a wide range of literature across fields, including psychology, and draws heavily on insights from Eric Uslaner's work on social trust (incidentally, so does Rathbun). In order to test his argument(s) empirically, Jasinski employs a mixed-method approach, a growing trend in American political science. Its creative ambition and comprehensiveness are the book's main virtue; they also instill some problems. Overall, the argumentative net is cast too wide to deliver a focused analysis, and some of the knots holding it together are weak. Indeed, what first appears as a simple argument is in fact a rich tapestry of multiple, loosely similar arguments, whose logical path on both sides of the “social trust” variable—the factors accounting for this condition and its behavioral consequences—is not always easy to follow.

One of the author's core points is that “generalized” social trust, defined as faith in “complete strangers” (p. 47), is found in strong states. This is posited against “particular” social trust, said to be a hallmark of the condition of “domestic anarchy” found in weak states. State strength/weakness thus emerges as a key factor, yet despite the author's efforts, it is not defined carefully. Instead, the reader is given an array of vague markers, such as social cohesion, government legitimacy, effectiveness in providing public goods and reducing inequality, establishing and enforcing rules regulating everyday life, and so on. Moreover, the nascent contractual argument is supplemented by another element: namely, the ability of the state to generate a national identity (“effective nation-building”; p. 62). The treatment of this factor and the difficulty in placing it in the argument is indicative. The discussion moves between a) recognizing that nationalism tends to exclude and discriminate, and b) attempting to link national identity to the practice of trusting “perfect strangers,” thus presenting collective identity as both preventing and supporting generalized social trust. Of course, collective identities can form in both exclusionary and inclusionary ways